



**LIGHT^{MY}
BRICKS**



**LEGO[®] MOTORISED LIGHTHOUSE
#21335 LIGHT KIT
INSTALLATION GUIDE**

Light My Bricks



LEGO® MOTORISED LIGHTHOUSE 21335 INSTALLATION GUIDE

Hi There!

We're here to help you get started on the LEGO®

Motorised Lighthouse 21335 Light Kit.

This PDF details the instructions for the LED light kit only. If you are wishing to purchase this product, please [click here](#) to view the product page.

If you run into any issues, please refer to the troubleshooting section towards the end of this guide.

Have fun and enjoy!





PACKAGE CONTENTS:



- 6 x White 30cm Bit Light *
- 6 x Blue 30cm Bit Light *
- 1 x Orange 30cm Bit Light
- 1 x Yellow 30cm Bit Light
- 1 x Cool White 15cm Bit Light
- 1 x Cool White 30cm Large Bit Light
- 1 x Orange 30cm Large Bit Light



- 1 x 2-Port Expansion Board
- 1 x 6-Port Expansion Board
- 1 x 12-Port Expansion Board
- 1 x Flicker Effects Board



- 1 x 5cm Connecting Cable
- 1 x 30cm Connecting Cable
- 1 x Wireless Power Connectors
- 1 x Powered Up Cable



- 1x USB Power Cable
(Power Source not Included)

ASSORTED BRICKS:

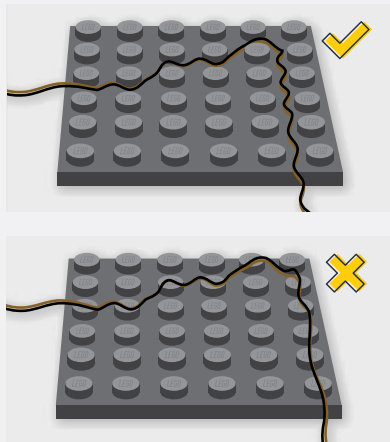
- 1 x Round Brick 1x1 - Black
- 1 x Bracket 1x1 - Any Colour
- 1 x Bracket Inverted 1x1 - Any Colour
- 6 x Plate 1x1 Mod Rounded W/ Handle - Black
- 4 x Plate 1x1 Mod W/ Horizontal Clip - Any Colour
- 2 x Plate 1x1 - Any Colour
- 6 x Tile 1x1 W/ Clip Round Edges - Black
- 1 x Technic Pin - Black
- 7 x Round Plate 1x1 Open Stud - Black
- 1 x Round Plate 1x1 Open Stud - Gold
- 4 x Round Plate 1x1 - Trans Clear
- 1 x Round Plate 1x1 - Trans Dark Green

* Indicates components which include spares

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Before You Begin



Laying cables in between and underneath bricks

Cables can fit in between and underneath LEGO® bricks, plates, and tiles providing they are laid correctly between the LEGO® studs. Do NOT forcefully join LEGO® together around cables; instead ensure they are laying comfortably in between each stud.

CAUTION: Forcing LEGO® to connect over a cable can result in damaging the cable and light.



Connecting Cable Connectors To Expansion Boards

Take extra care when inserting connectors to ports of Expansion Boards. Connectors can be inserted only one way. With the expansion board facing up, look for the soldered “=” symbol on the left side of the port. The connector side with the wires exposed should be facing toward the soldered “=” symbol as you insert into the port. If a plug won’t fit easily into a port connector, do not force it.

Incorrectly inserting the connector can result in bent pins inside the port or possible overheating of the expansion board when connected.

Before You Begin



Connecting Cable Connectors To Strip Lights

Take extra care when inserting connectors to ports on the Strip Lights. Connectors can be inserted only one way. With the Strip Light facing up, ensure the side of the connector with the wires exposed is facing down. If a plug won't fit easily into a port connector, don't force it. Doing so will damage the plug and the connector.



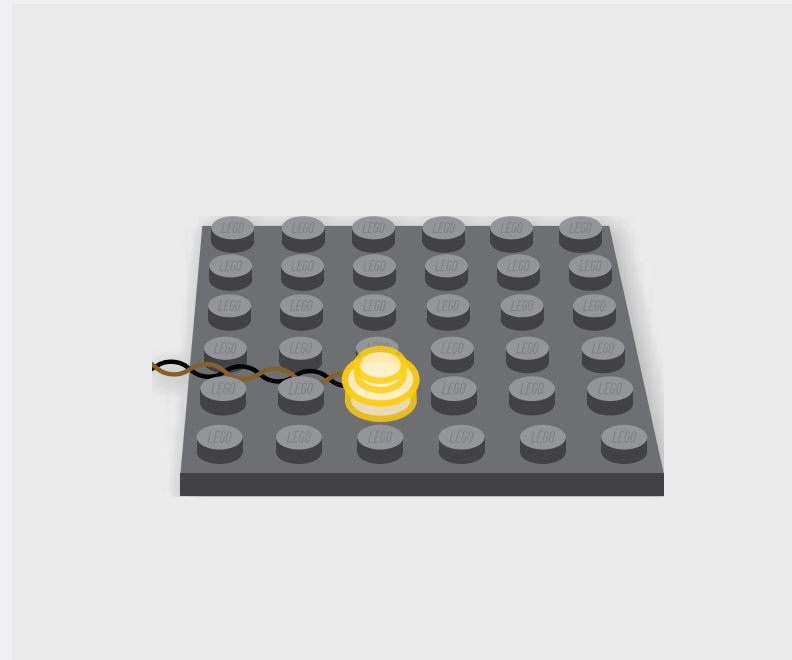
Connecting Micro Cable Connectors To Micro Expansion Board Ports

Take extra care when inserting the micro connectors to micro ports of Micro Expansion Boards. Connecting Micro Bit Lights to Micro Expansion Boards is similar to connecting lights and cables to Strip Lights. With the expansion board facing up, ensure the side of the connector with the wires exposed is facing down. If a plug won't fit easily into a port connector, do not force it. Use your fingernail to push the plastic part of the connector to the micro port.

Before You Begin

Installing Bit Lights Under Lego® Bricks And Plates

When installing Bit Lights under LEGO® pieces, ensure they are placed the correct way up (Yellow LED component exposed). You can either place them directly on top of LEGO® studs or in between.



Before You Begin

The Symbols Used In This Guide

When going through the following guide you will come across symbols and formats that will assist with the installation of your light kit. Take notice of them as each has a specific purpose.

Light Kit Component

This is the most important image format as it indicates which part to use from the Light Kit. Make sure you pay close attention to which part is shown.

White 30cm Bit Light



Connect

Used when you need to connect a LEGO piece or LMB component.



Disconnect

Used when you need to remove a LEGO piece/ section or LMB component.



Directional

Used to show where to route cables, place components, or move them.



Bend/Pivot

Used when a component needs to be bent, or part folded or pivoted.



Turn/ Flip

Will be found in the top left corner when the set needs to be rotated or flipped.



Twist/ Braid

Seen when a set of cables need to be grouped and twisted together.



Power On Test

Found at the end of a major step to test the lights. Will be located in the top left corner.



Note

Notes will be found alongside the instruction photos and explain what to do.



Before You Begin

Repeat Step

Repeat the previous step eg. Make a spotlight, then make a second spotlight.

x2

Connect Focus

Used to highlight a hard to see area where a component is being connected.



Disconnect Focus

Used to highlight a hard to see area where a component is being disconnected.



General Focus

Used to highlight a hard to see area where a component needs to be acted on.



General Note

This is a sample note that is used anywhere in this guide. It will explain a difficult section where photos are hard to illustrate or easily confused.

Connect Note

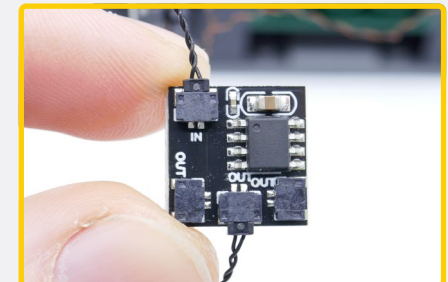
The green coloured note is used when the topic focuses on a component being connected, like the shown Power Bank.

Disconnect Note

The red coloured note is used when the topic focuses on a component being disconnected or like here, the removed pieces.

NOTE

Take the 5cm Connecting Cable from the 4-Port Micro Expansion Board and route it into the "IN" port of the Flicker Effects Board



NOTE

Connect to a 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)



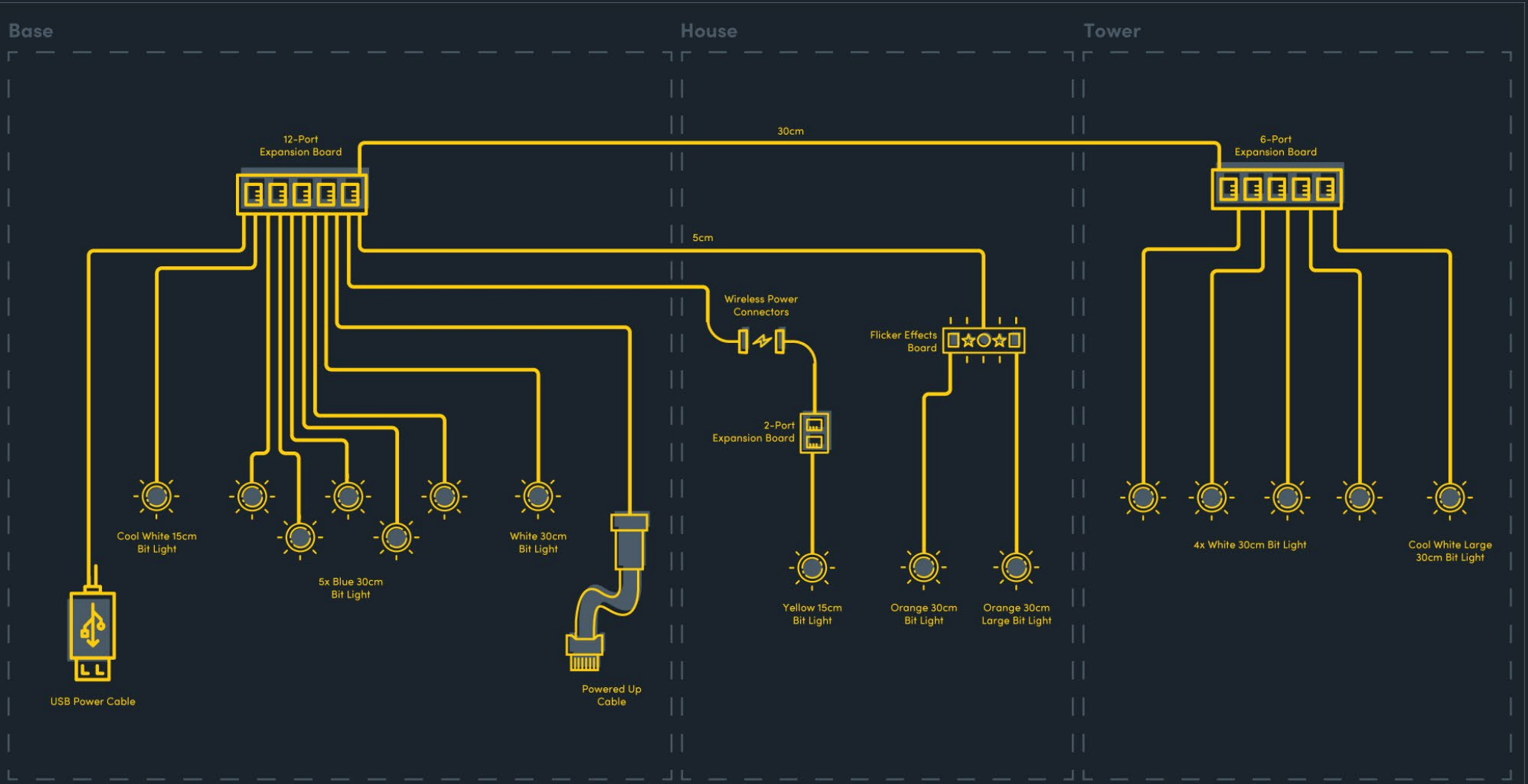
NOTE

You should have these parts left over that were removed from the LEGO set





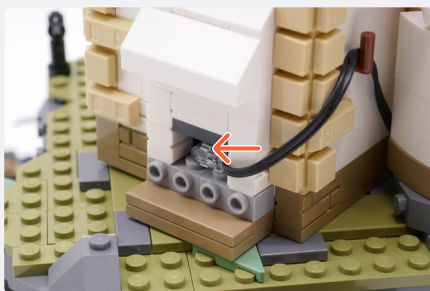
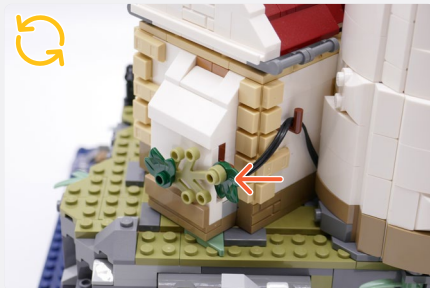
BLUEPRINT






INSTRUCTIONS


To ensure a smooth installation of your light kit, please read and follow each step carefully. If you run into any issues, please refer to the online troubleshooting guide.

1

2

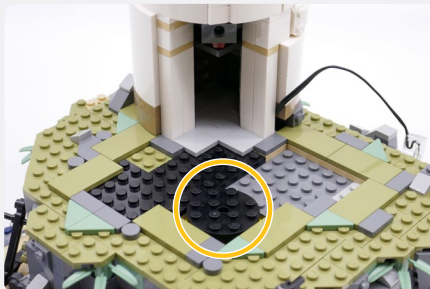
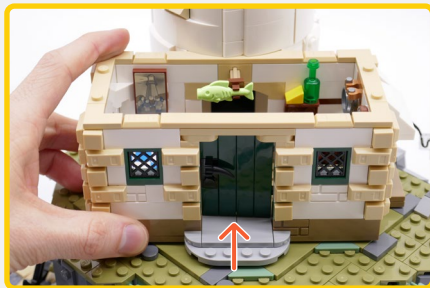

 **NOTE**

Use a LEGO Brick Separator Tool or similar to partially pry off the section.



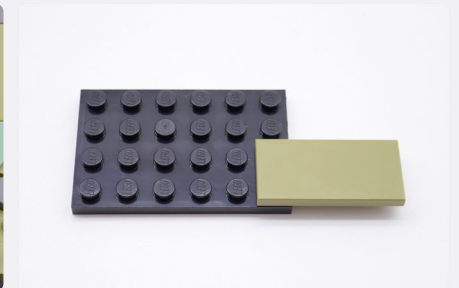
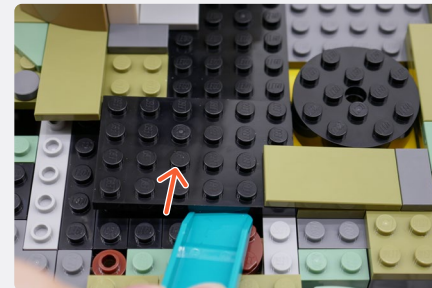
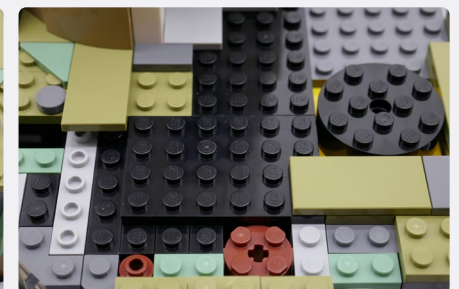
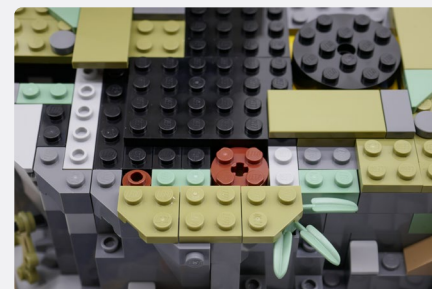
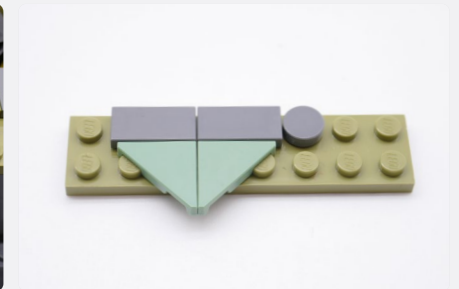
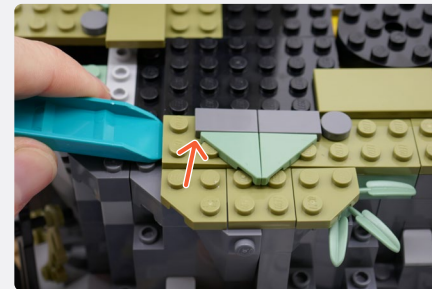
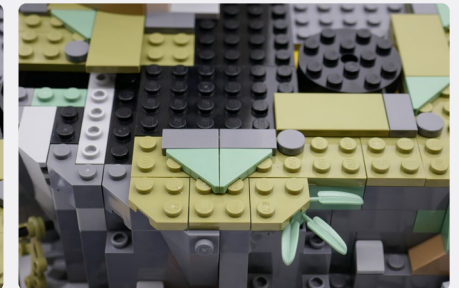
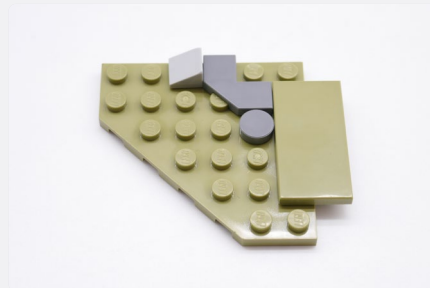
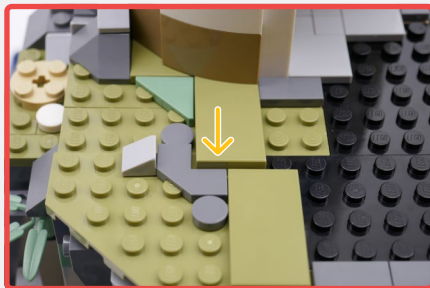
 **NOTE**

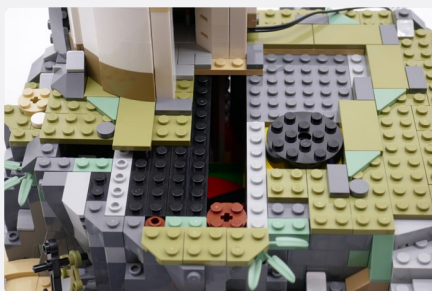
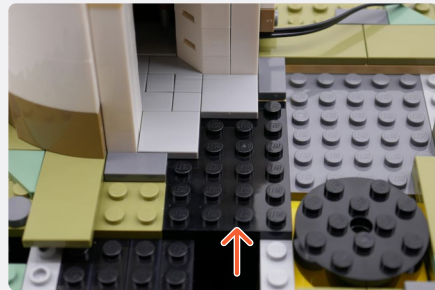
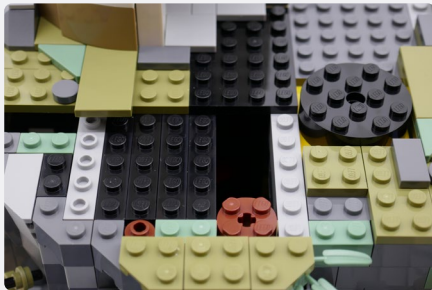
When disconnecting the house, ensure the Round Brick 4x4 underneath is left behind.



3

NOTE

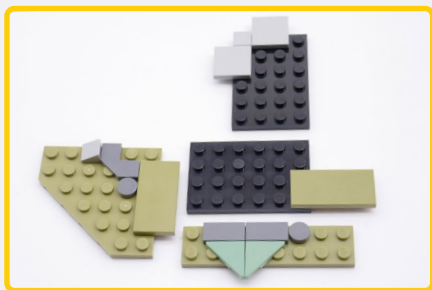
Remove this section by prying up the side, then lifting it out from underneath the tile.






 **NOTE**

These are the sections you should have removed in order so far.

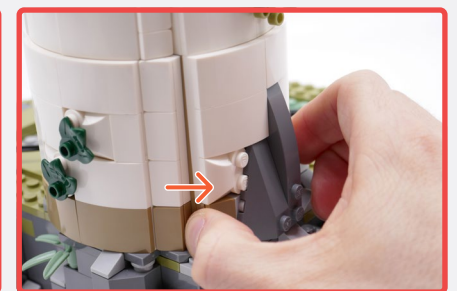



4



 **NOTE**

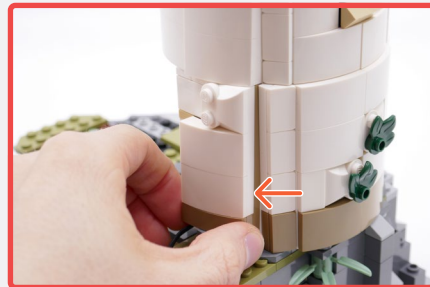

Partially disconnect the bottom section on this side of the tower.





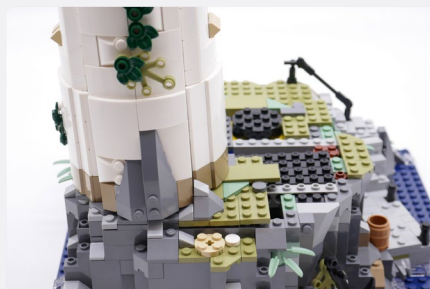
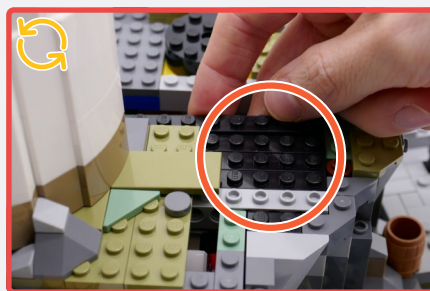
NOTE

Partially disconnect the bottom section on the other side of the tower.

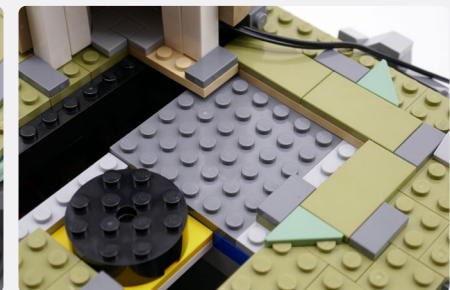
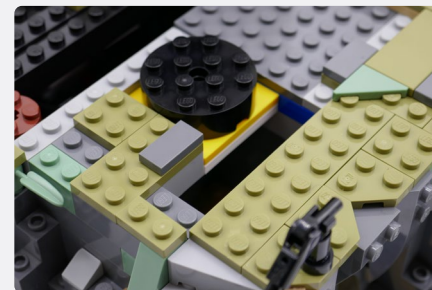
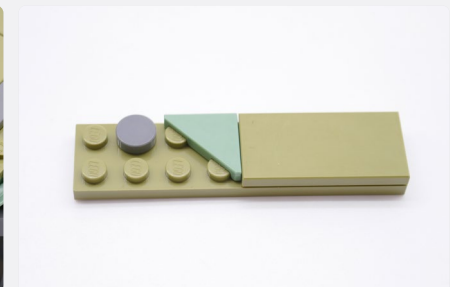
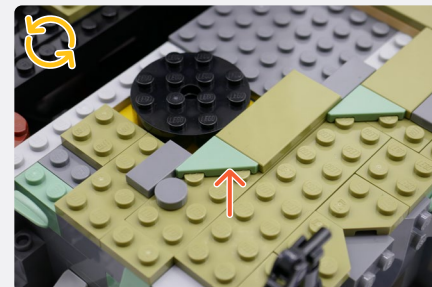




NOTE

Partially disconnect the black and grey technic bricks from the base.

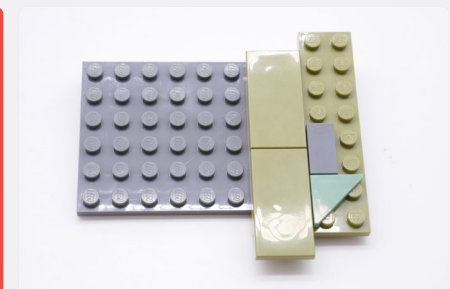
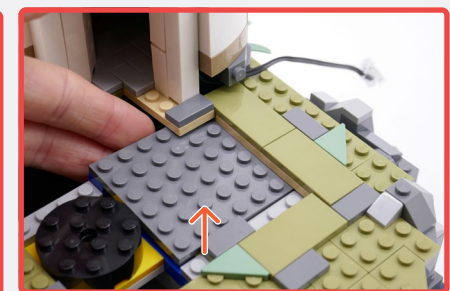


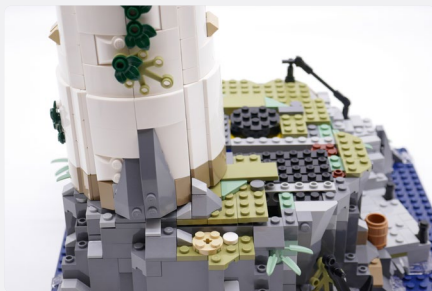
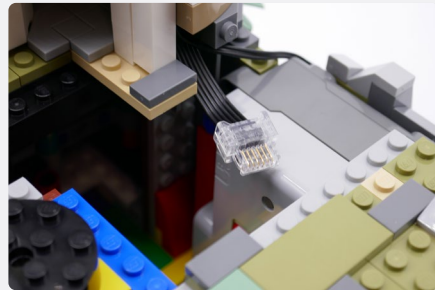
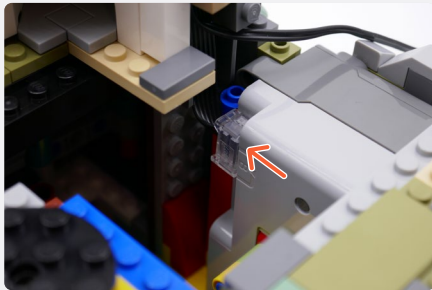
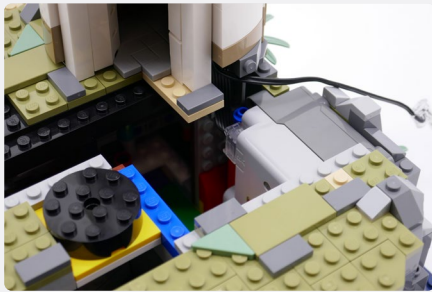
5

NOTE

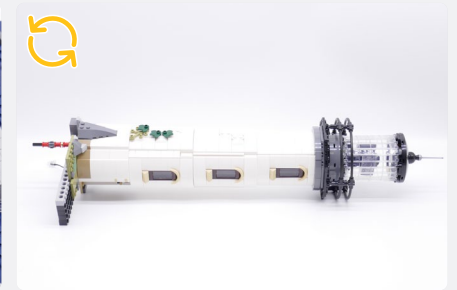
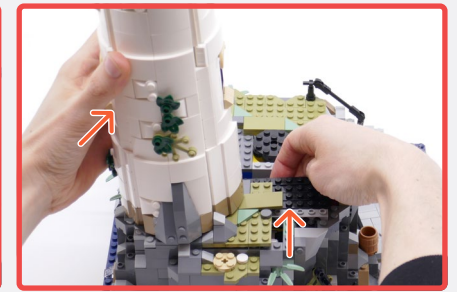
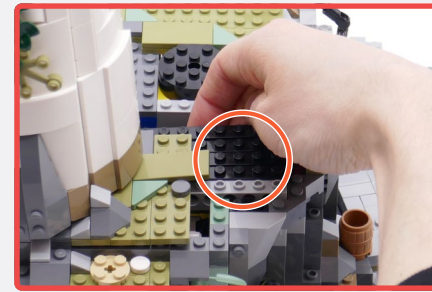
Remove this section by lifting up the large grey plate from underneath the tan coloured plate.



6


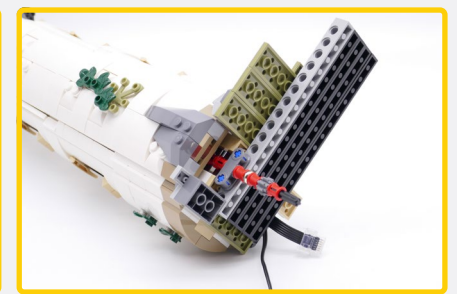
NOTE

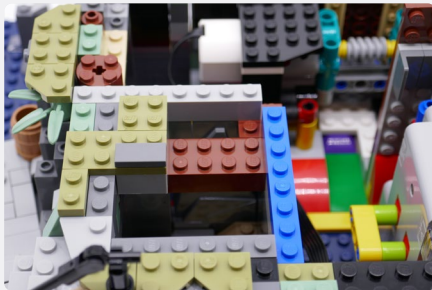
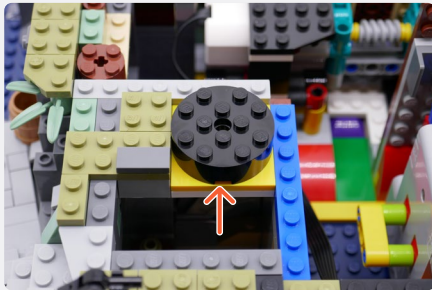
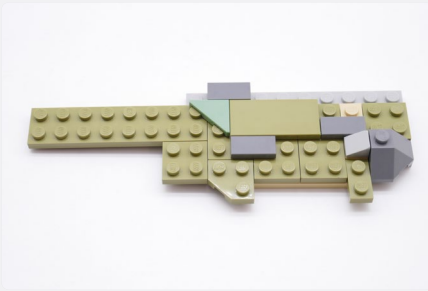
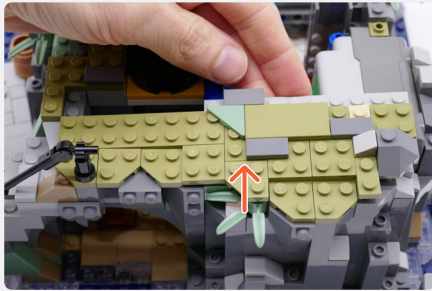
Remove the Lighthouse Tower by lifting up as shown. Ensure to lift from the long Black and Grey bricks while simultaneously lifting the lighthouse. Leave the axle attached to the lighthouse.



NOTE

The bottom of the lighthouse should look as shown


7

NOTE

These are the sections you should have removed in order.



8

Round Plate 1x1 Open Stud - Black

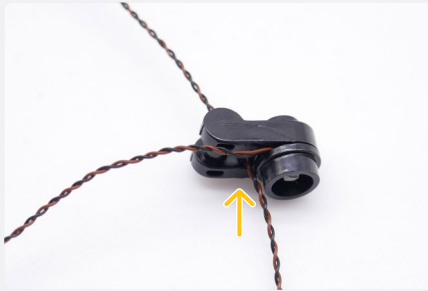


Blue 30cm Bit Light

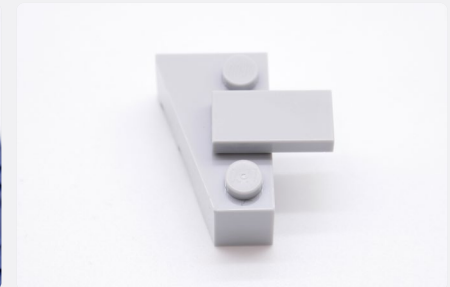
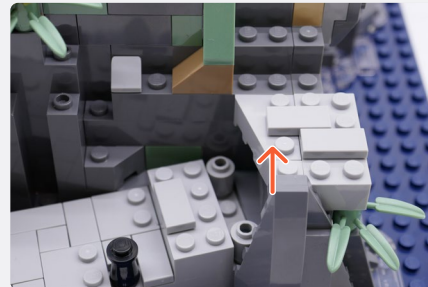
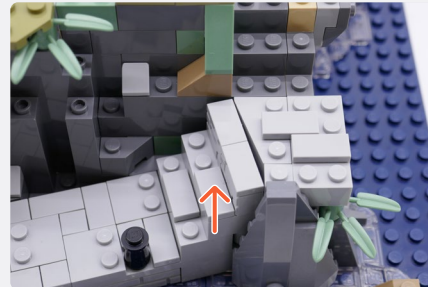
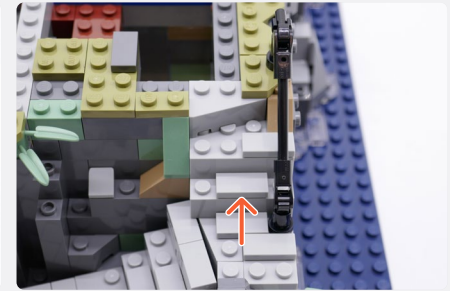


Plate 1x1 Mod Rounded W/ Handle - Black

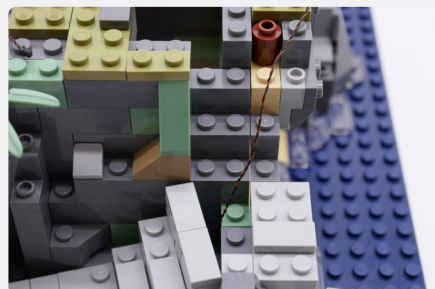
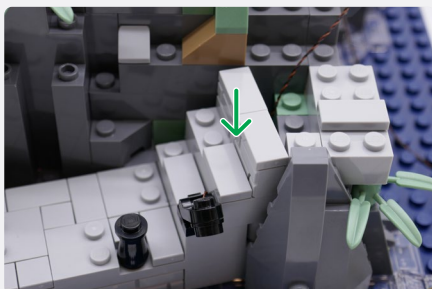
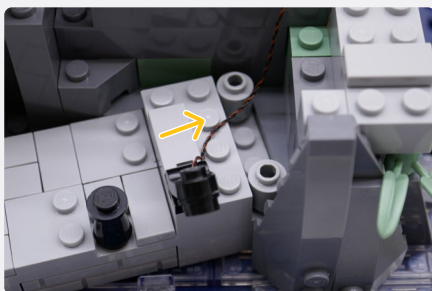
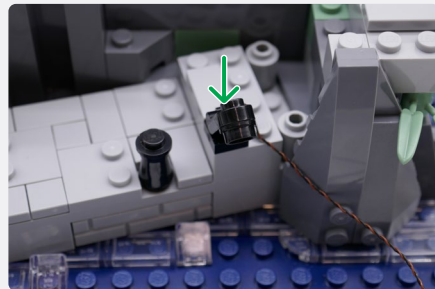
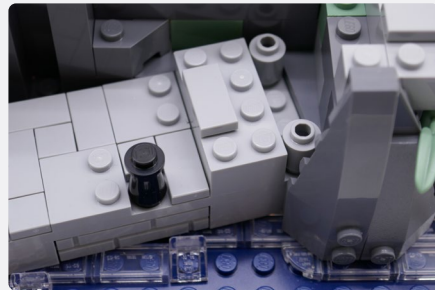





9

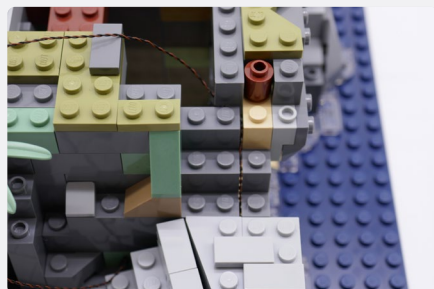
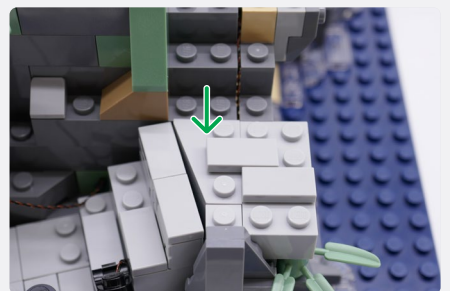
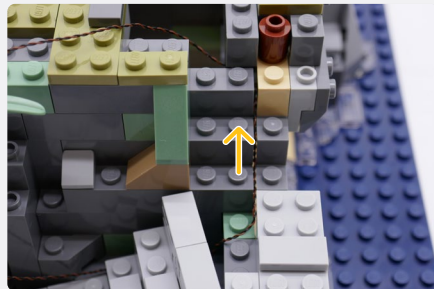
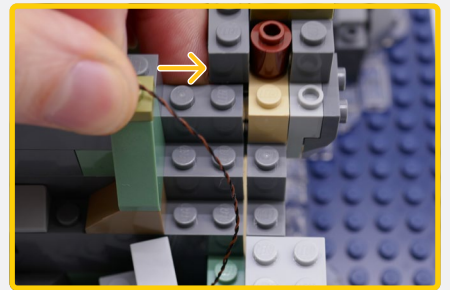


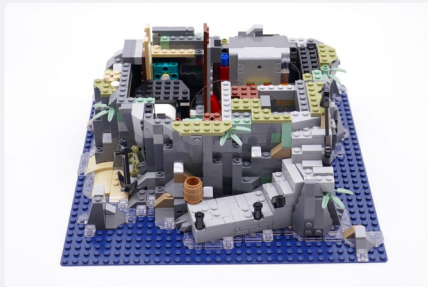
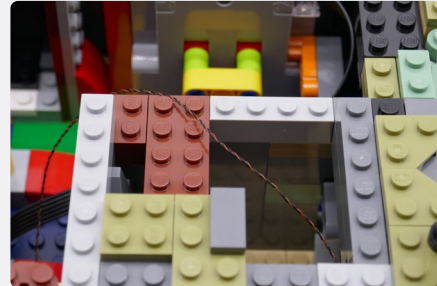
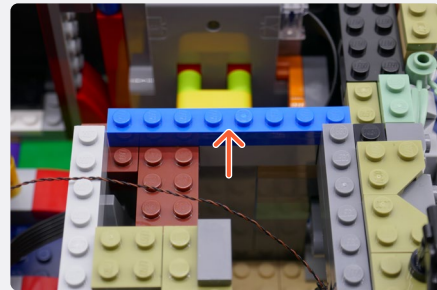
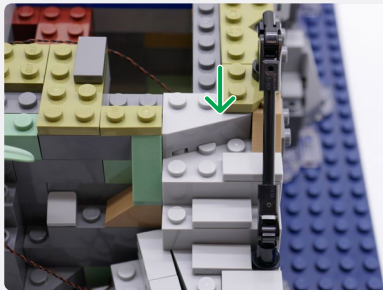
10



 **NOTE**

Pry apart the sections to make a gap and thread the cable through.

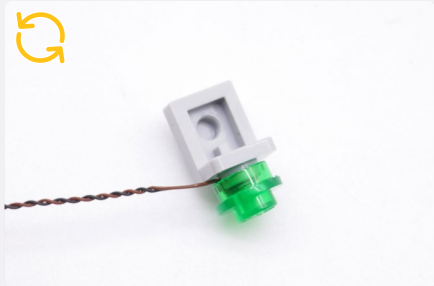
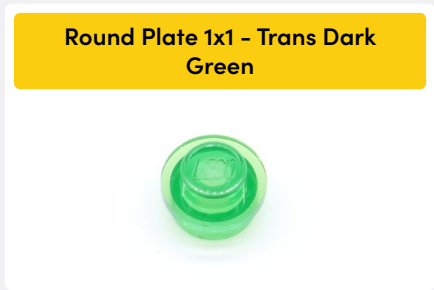




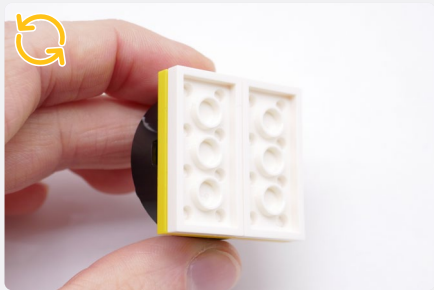
Cool White 15cm Bit Light



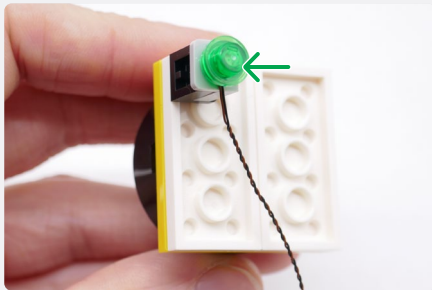
Bracket 1x1 - Any Colour



Bracket 1x1 Inverted - Any Colour

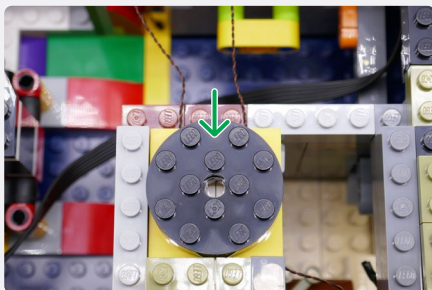
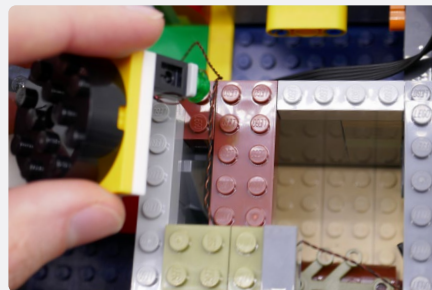
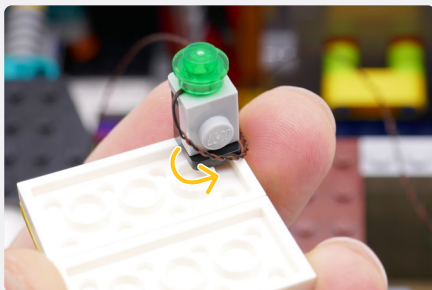
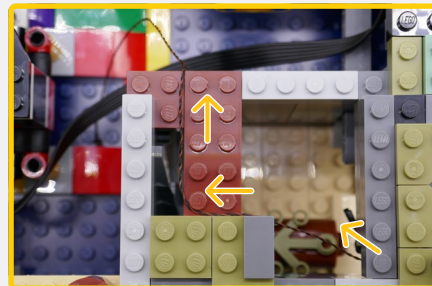


11

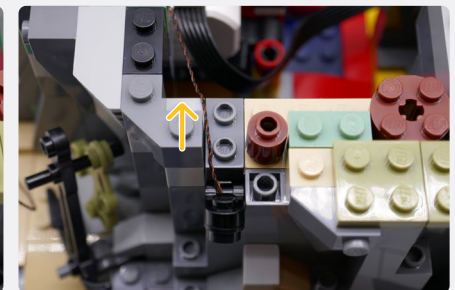
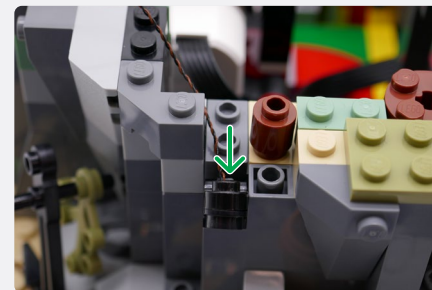
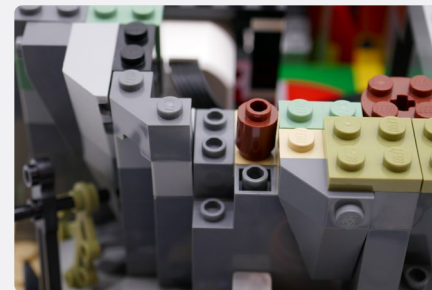
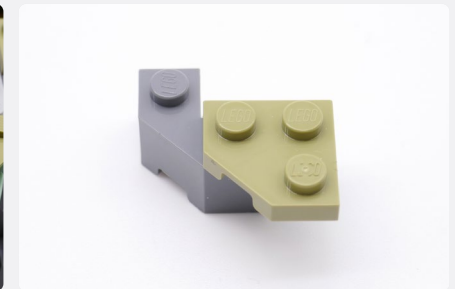
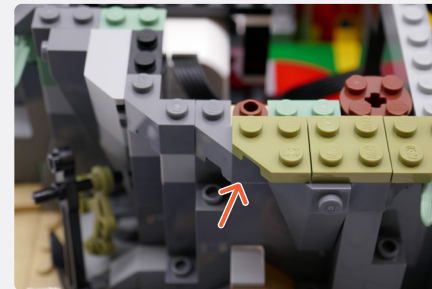
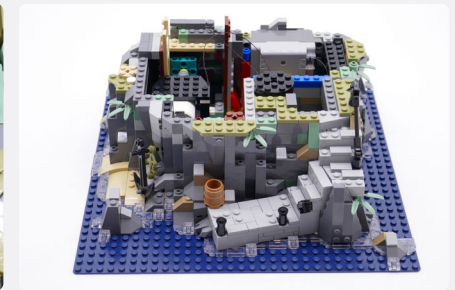
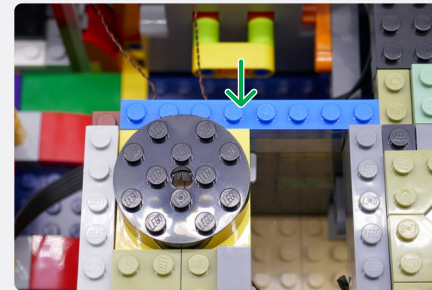


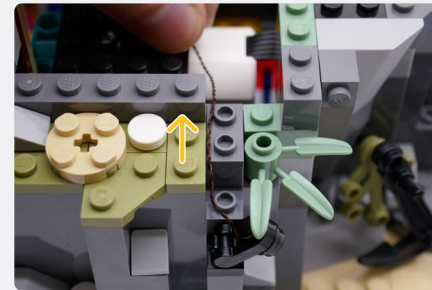
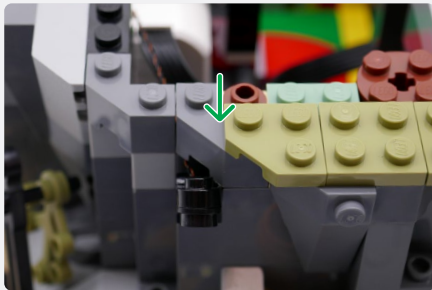
NOTE

Position the Blue 30cm Bit light cable from Step 10 as shown.

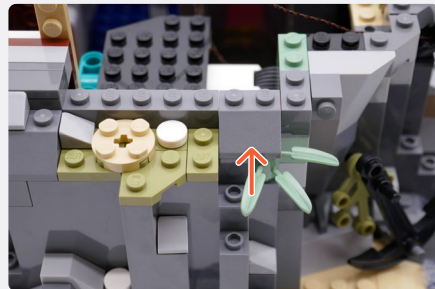


12

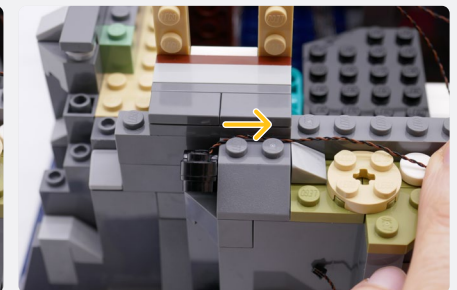
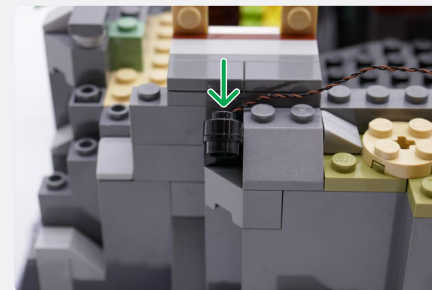
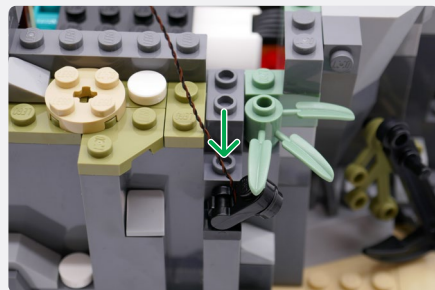
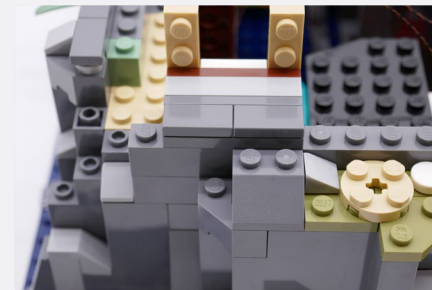
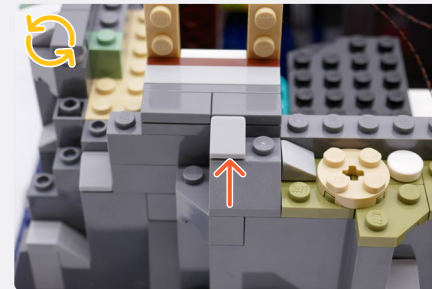


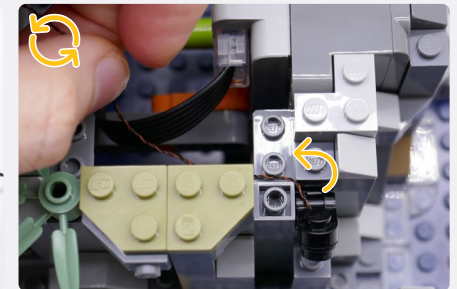
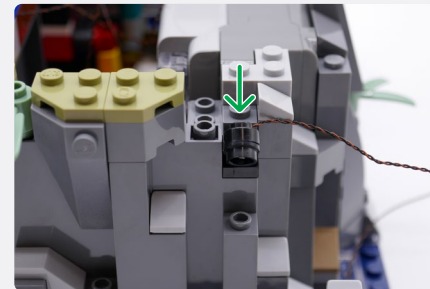
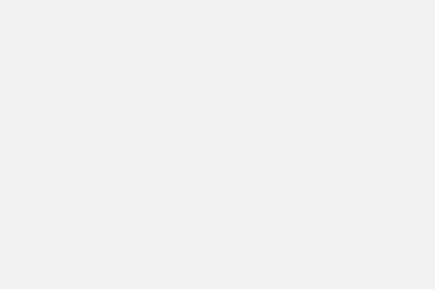
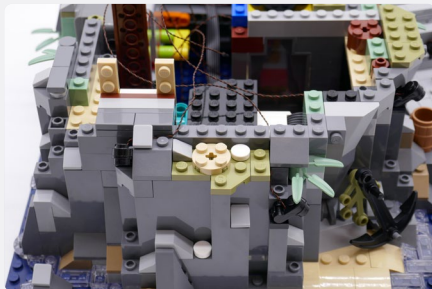
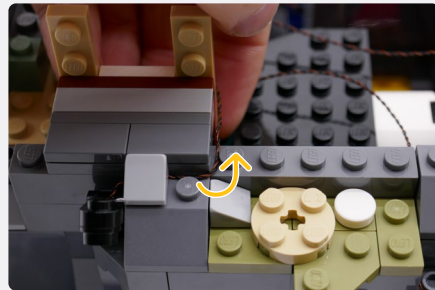
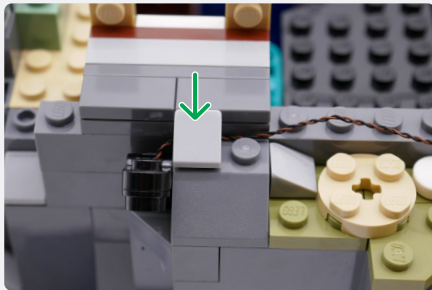


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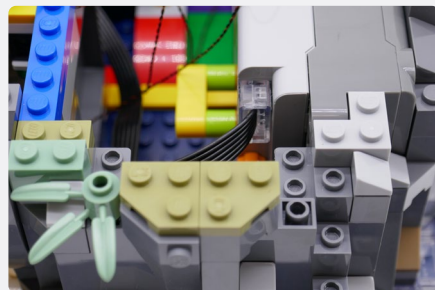
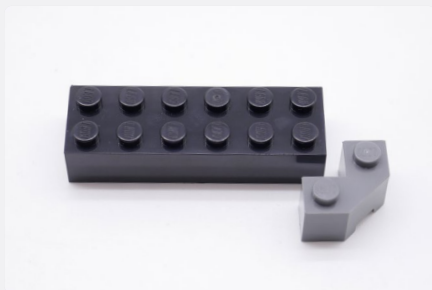
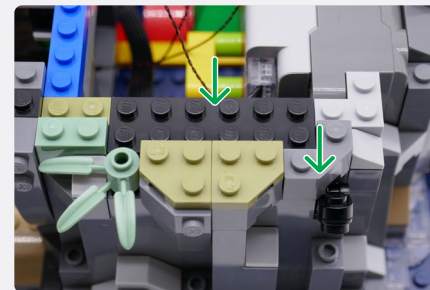
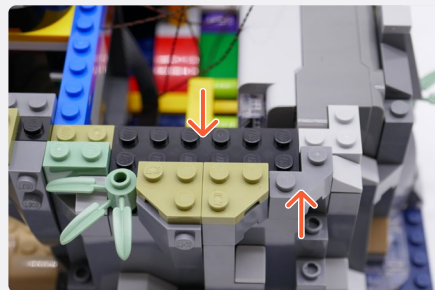


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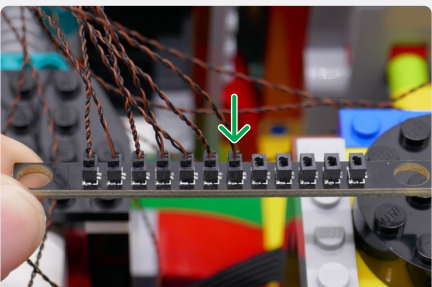
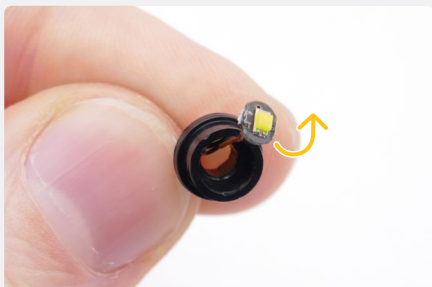
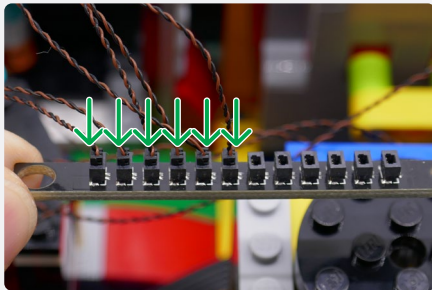




15

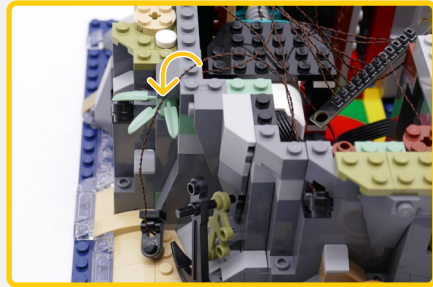


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NOTE

Leave the spotlight hanging over the edge like shown for later.

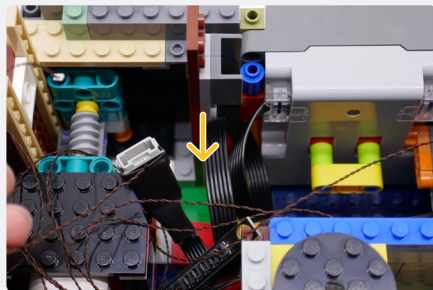
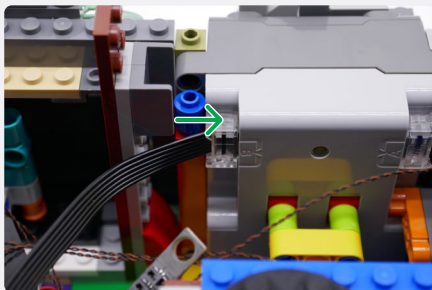
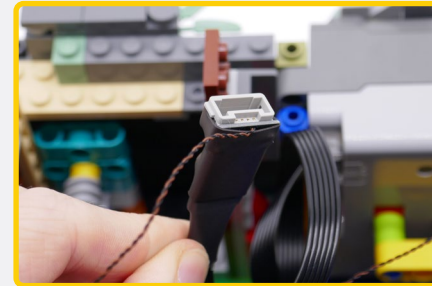
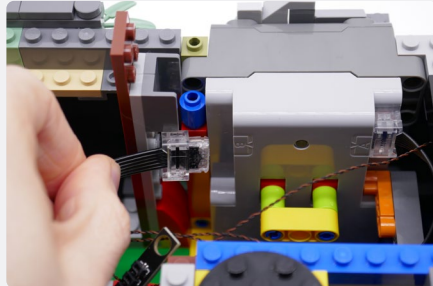


NOTE

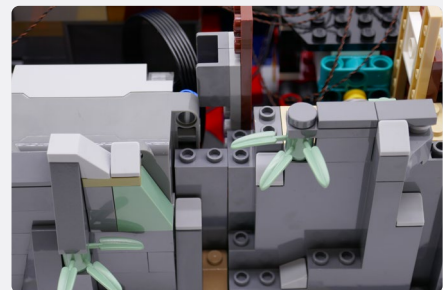
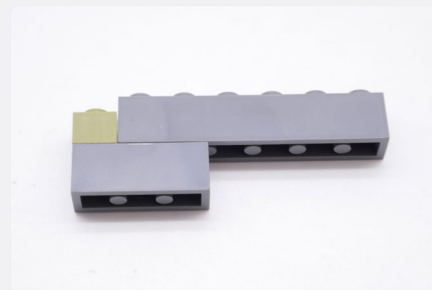
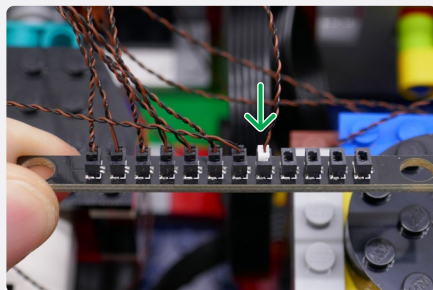
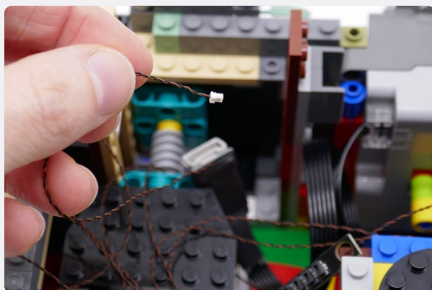
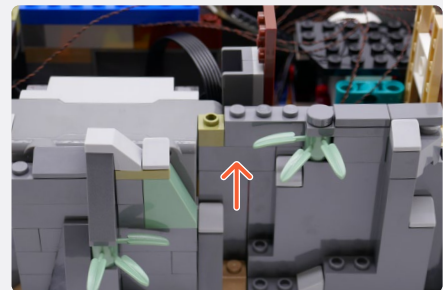
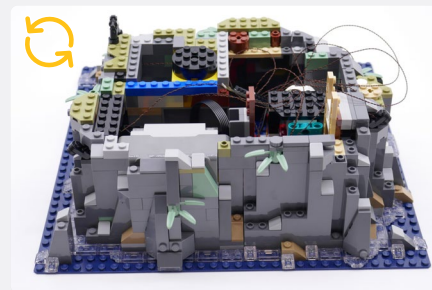
The Powered Up plug will not be used in this light kit. The included LEGO lights can be plugged into this if you wish.

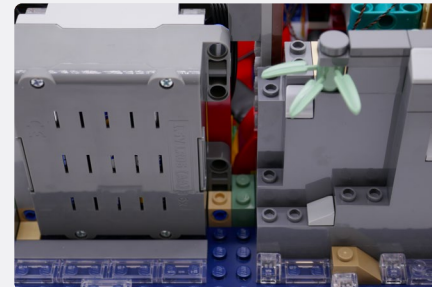
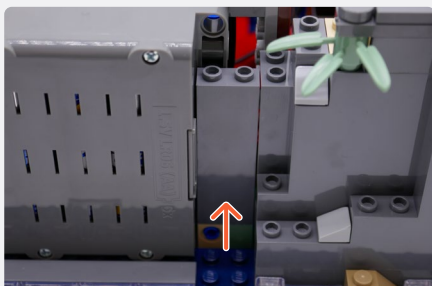
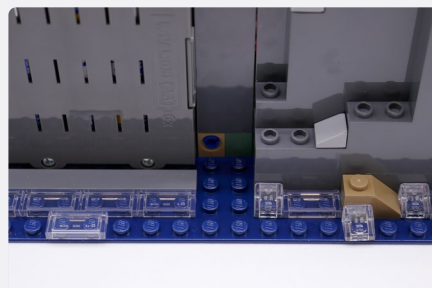
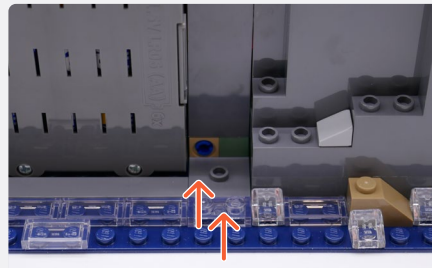
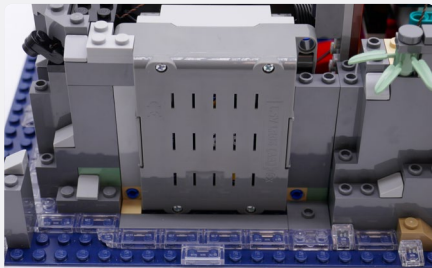
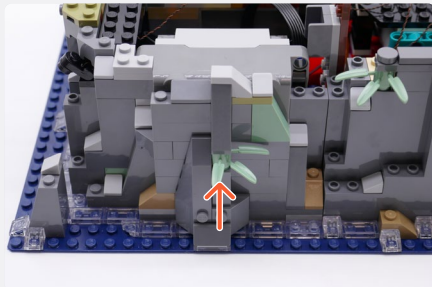
17

Powered Up Cable

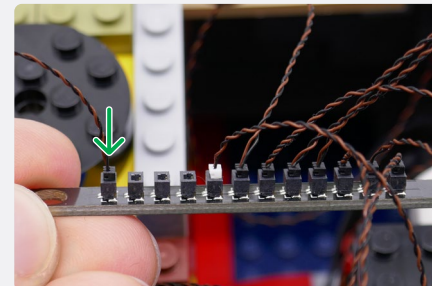


18

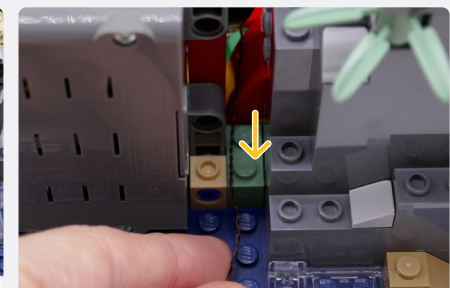
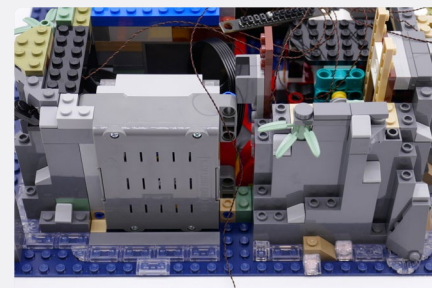




USB Power Cable

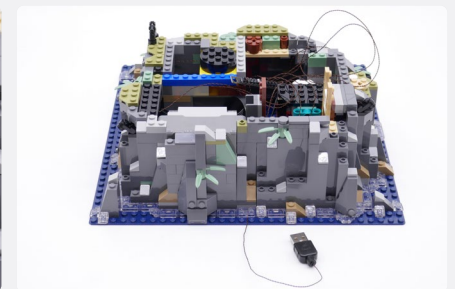
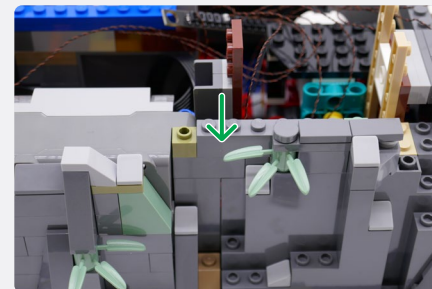
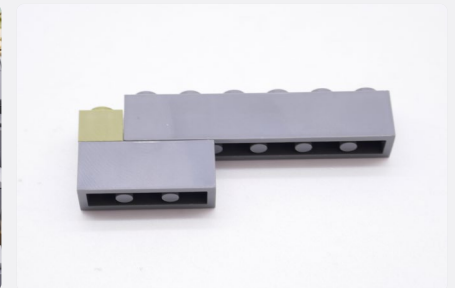
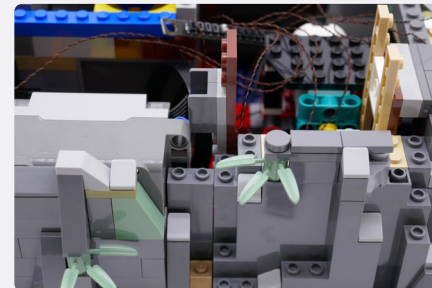
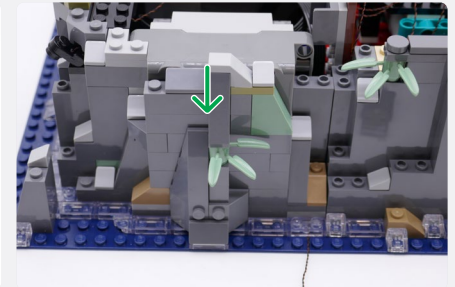
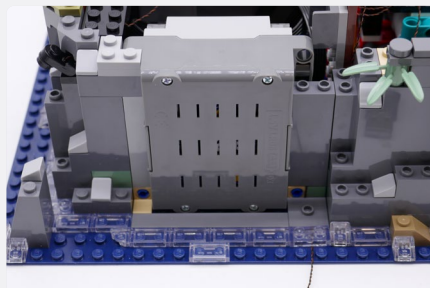
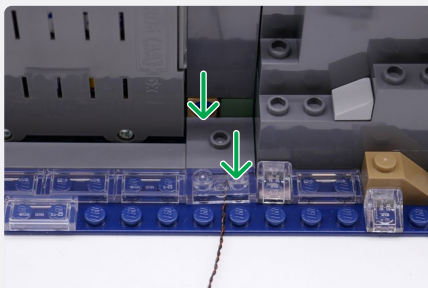
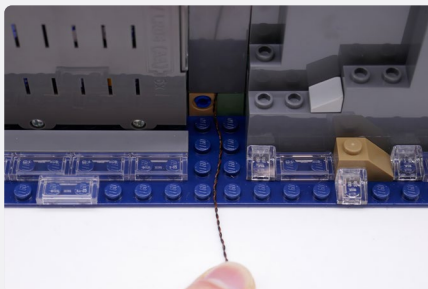
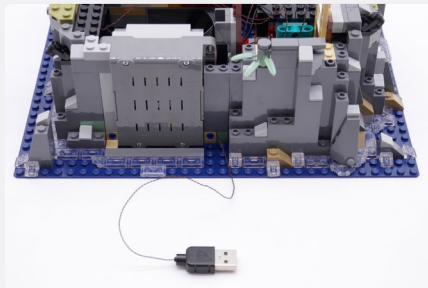
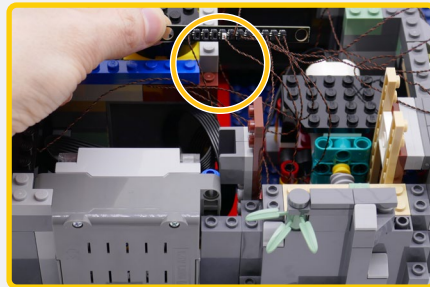
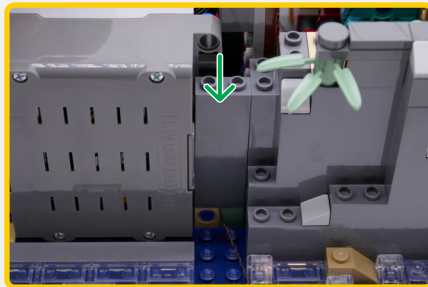


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NOTE

Allow around 10cm of length of the cable on the inside of the base before reconnecting section.



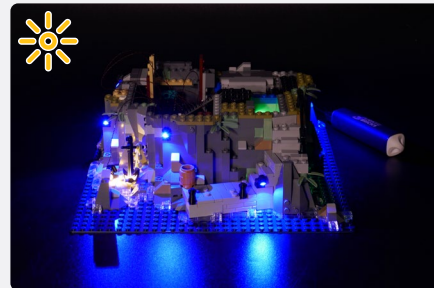
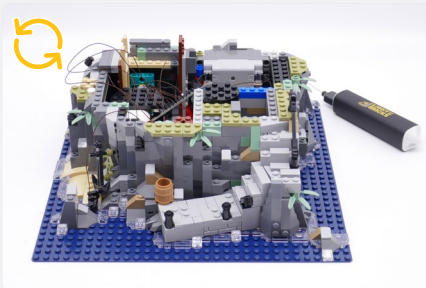
20



NOTE

Connect to a 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)





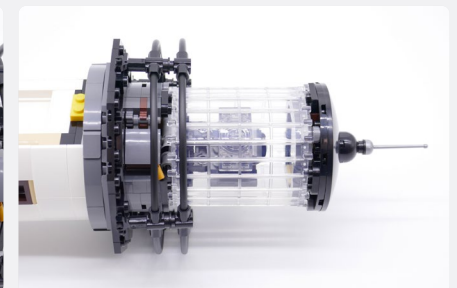
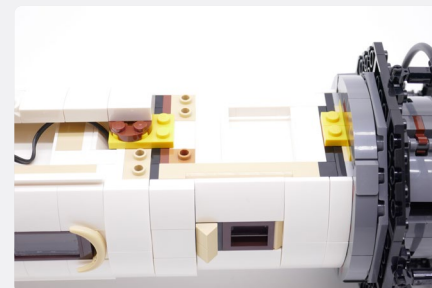
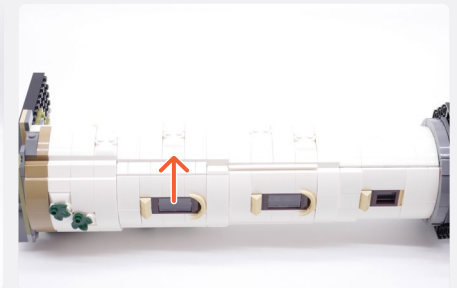
NOTE

Remove the Power Bank and test if the included LEGO battery box powers the lights and motor.




! If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion board issues in our troubleshooting section. i

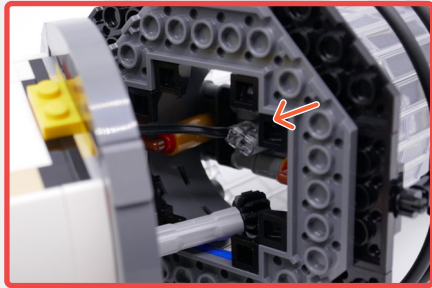
21






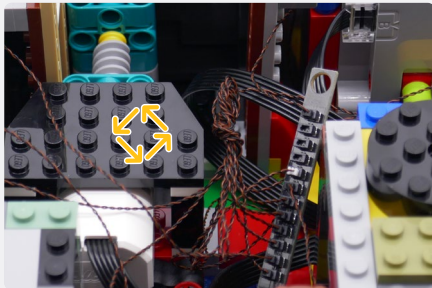
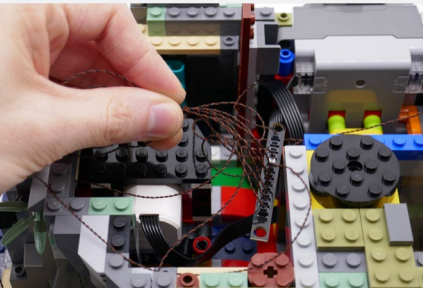
 **NOTE**


Disconnect the included LEGO LED from the top section.



 **NOTE**

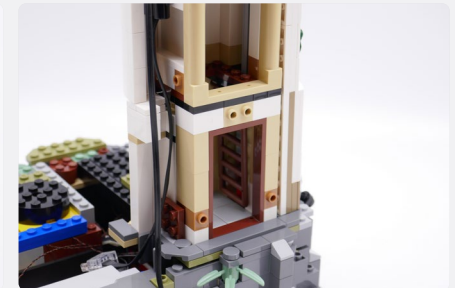
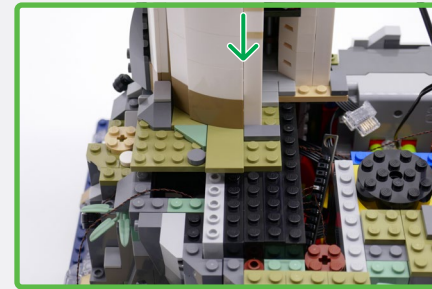
Exclude the White 30cm Bit Light from Step 10 from the twisting of cables.



 **NOTE**

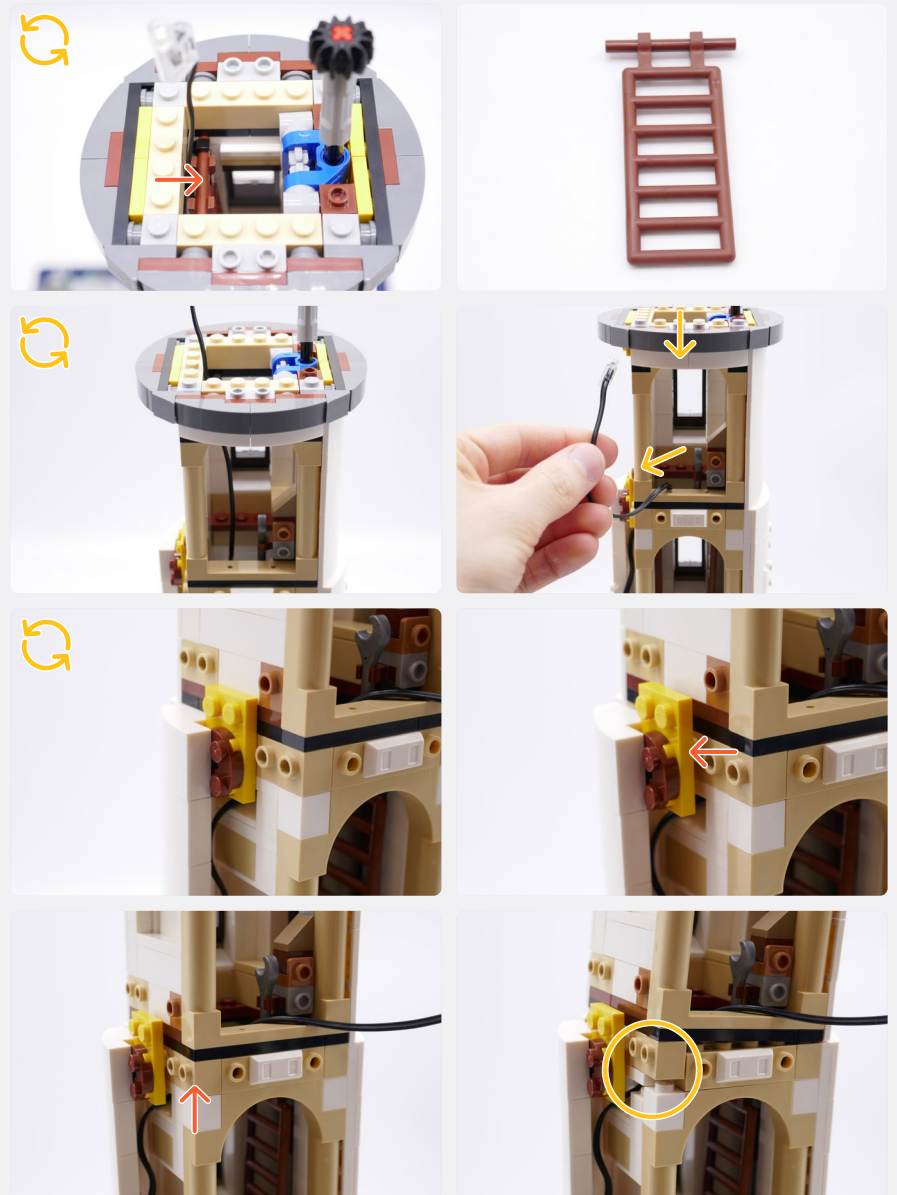
Partially reconnect the Lighthouse Tower by lining up the technic axle with the gear, and drop into place. Do not press firmly down.

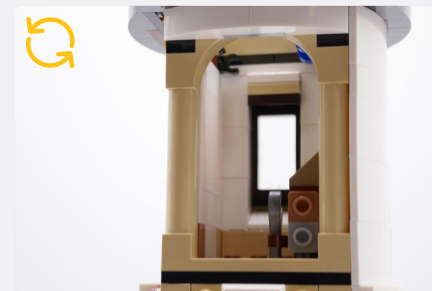
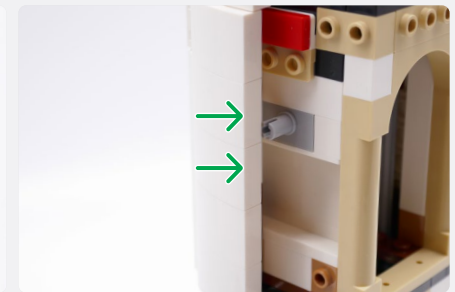
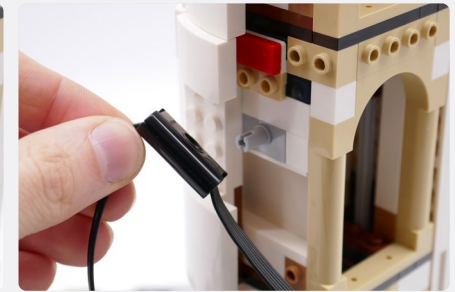
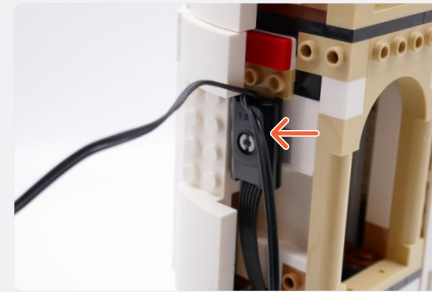
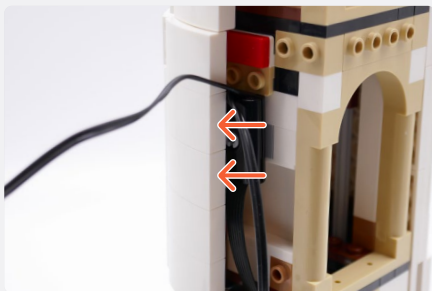
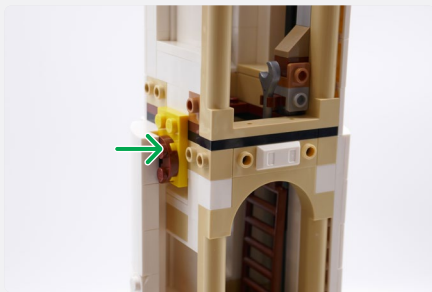
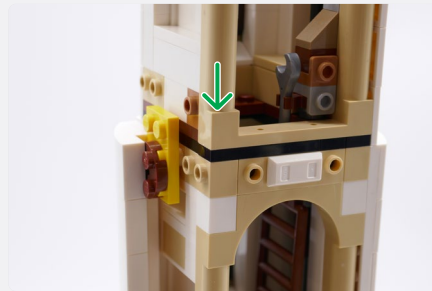
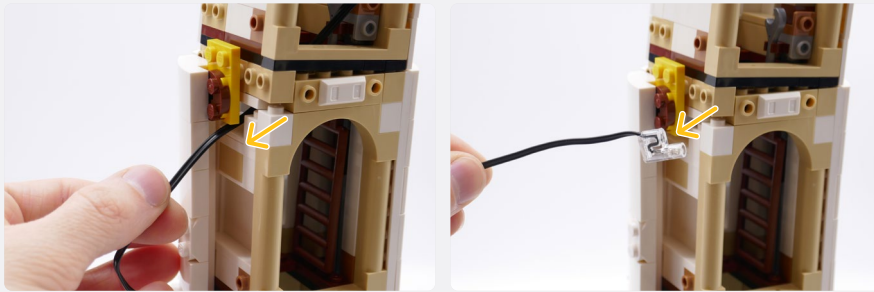
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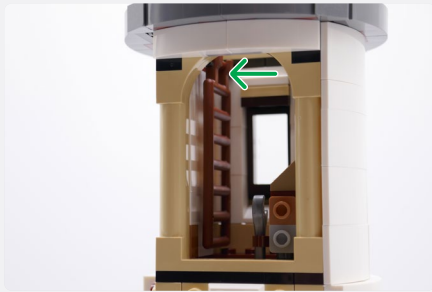


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Plate 1x1 Mod W/ Horizontal Clip - Black



White 30cm Bit Light



Round Plate 1x1 - Trans Clear

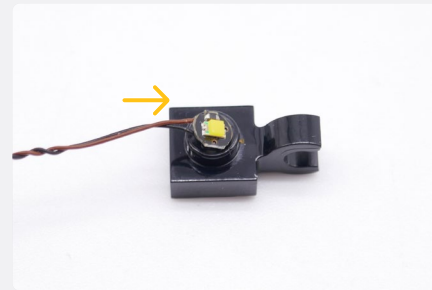


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Plate 1x1 Mod W/ Horizontal Clip - Black



White 30cm Bit Light



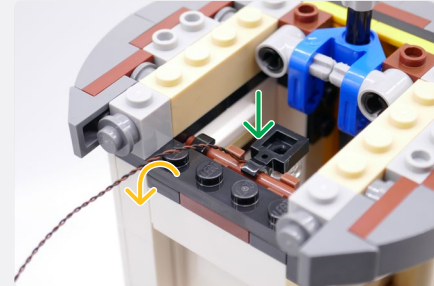
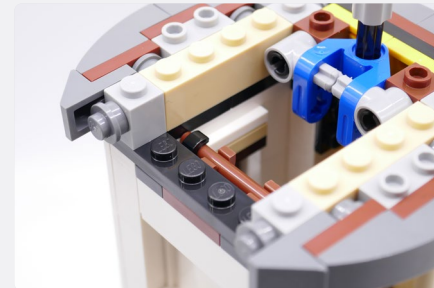
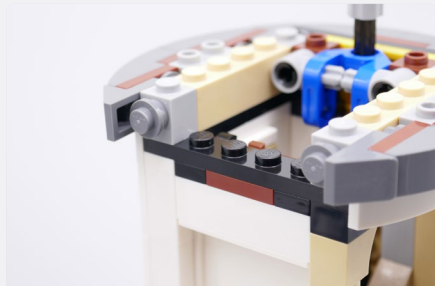
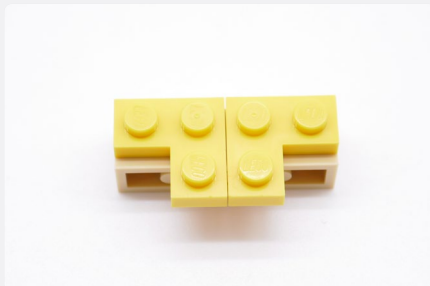
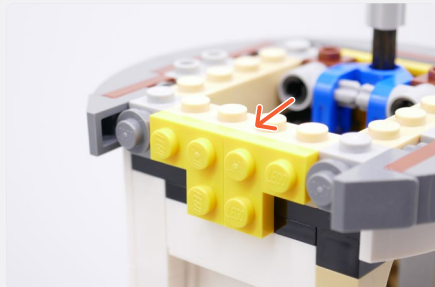
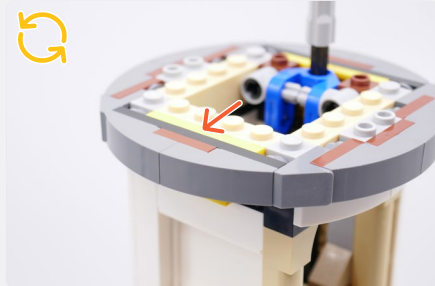
Round Plate 1x1 - Trans Clear



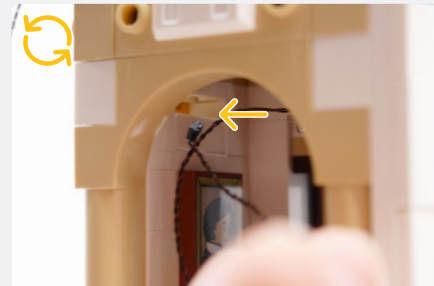
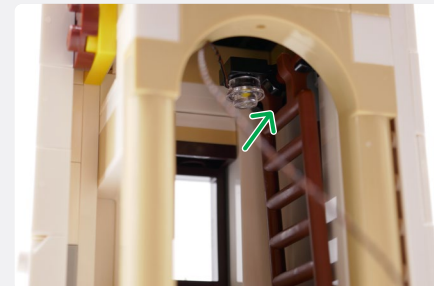
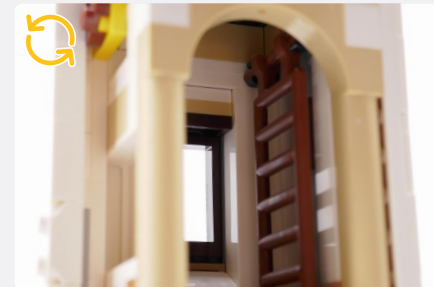
x2



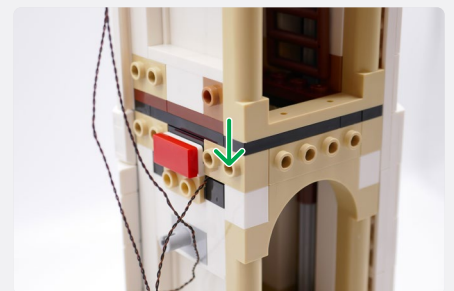
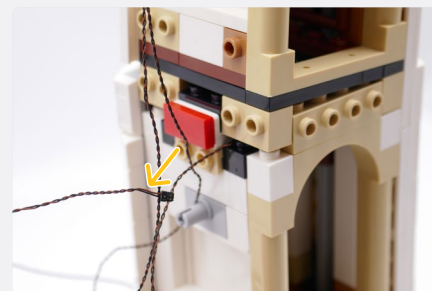
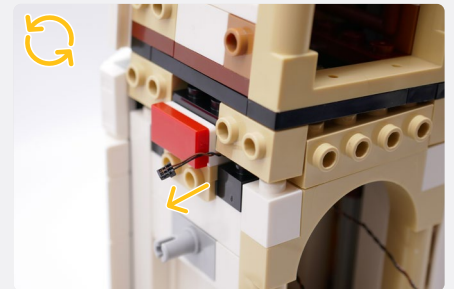
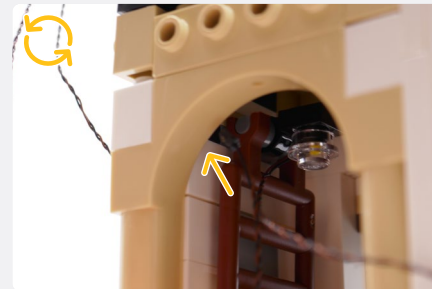
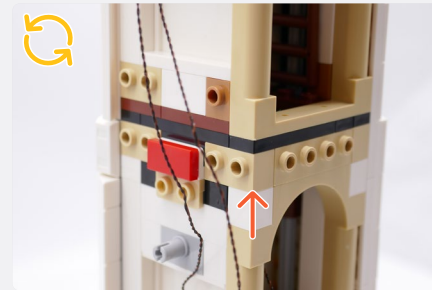
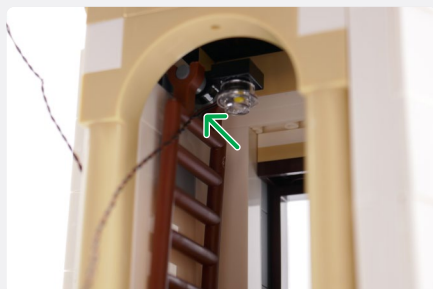
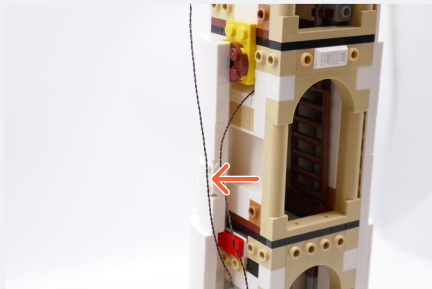
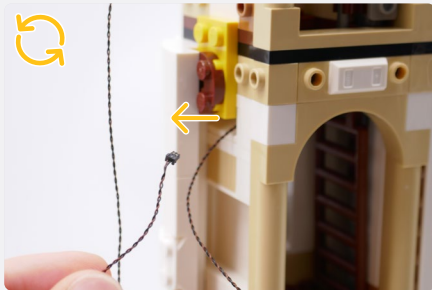
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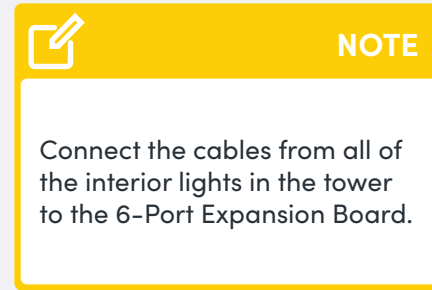
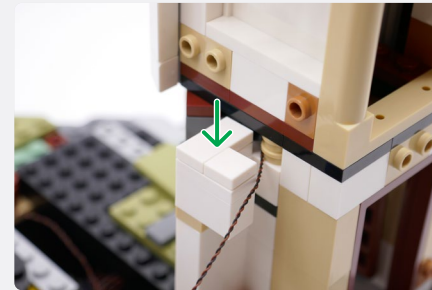
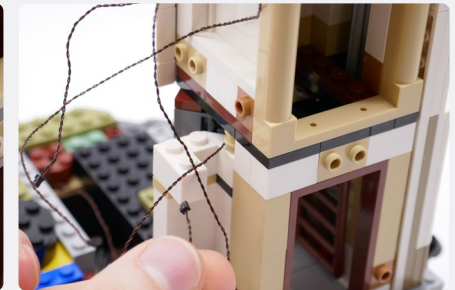
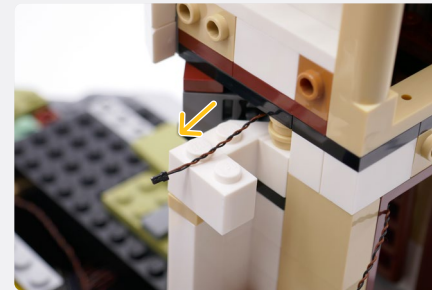
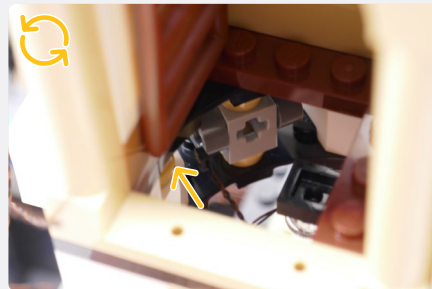
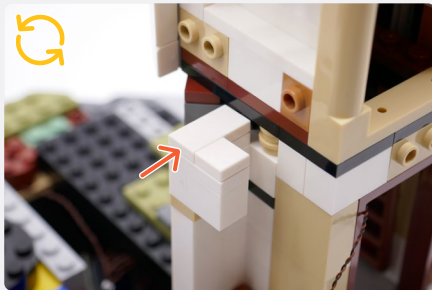
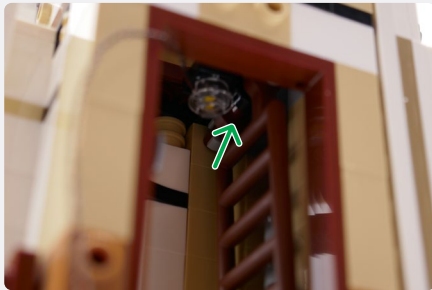
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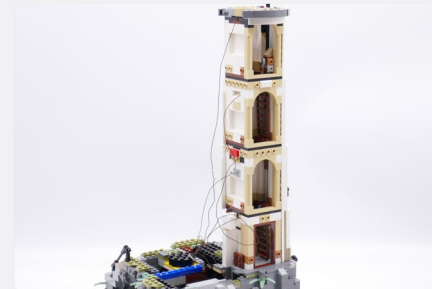
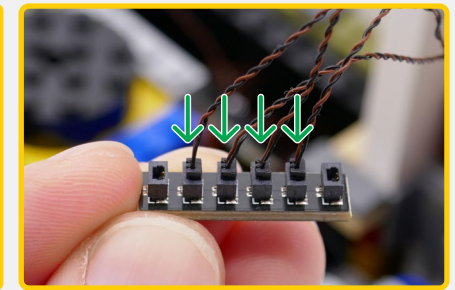
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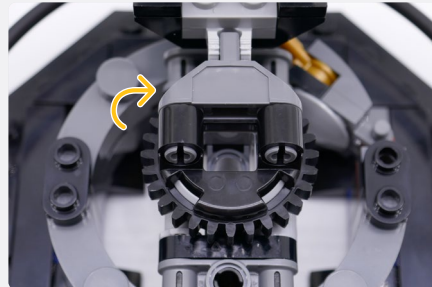
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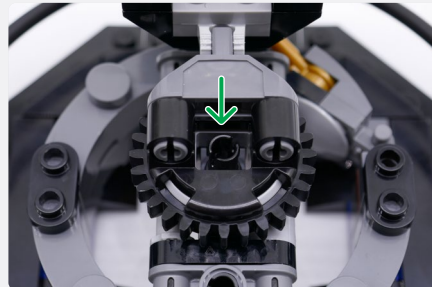
Connect the cables from all of the interior lights in the tower to the 6-Port Expansion Board.



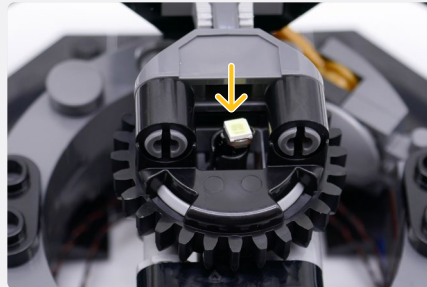
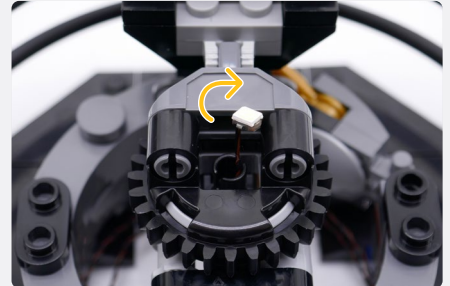
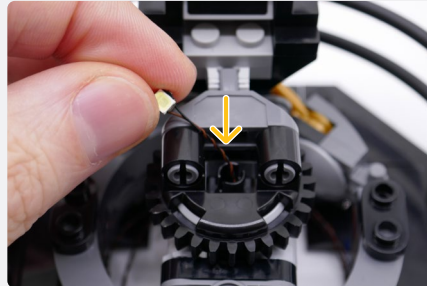
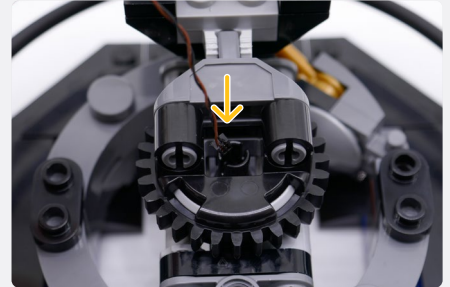
31



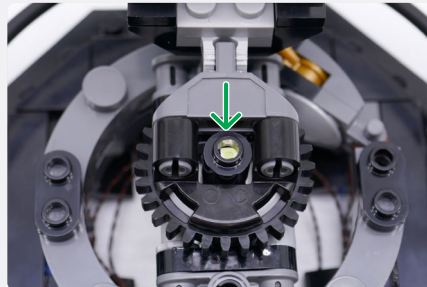
Technic Pin - Black



Cool White 30cm Large Bit Light




Brick Round 1x1 - Black

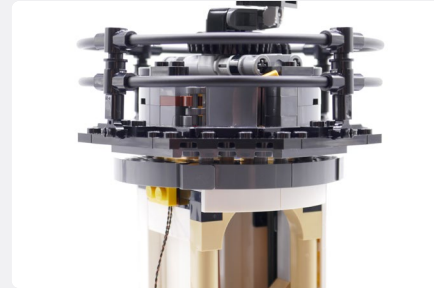
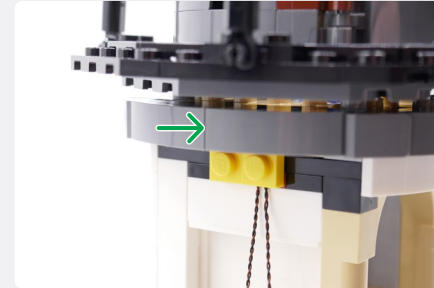
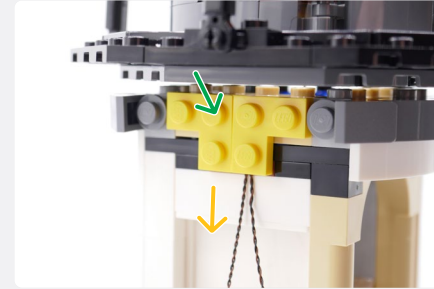
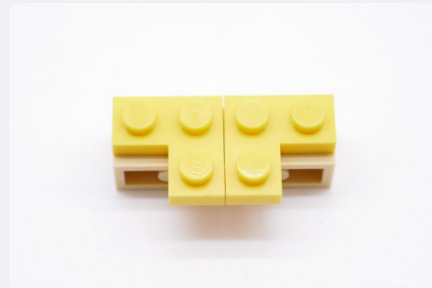
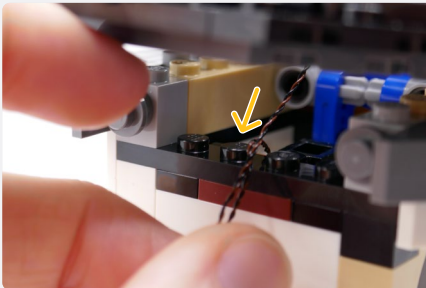
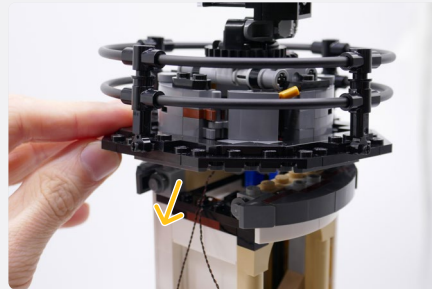
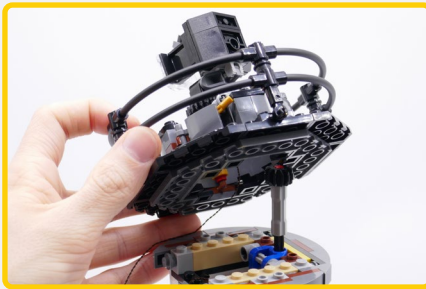


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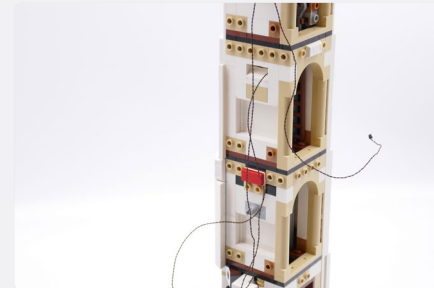


 **NOTE**

Ensure the beacon gear is lined up with the technic axle gear when connecting.

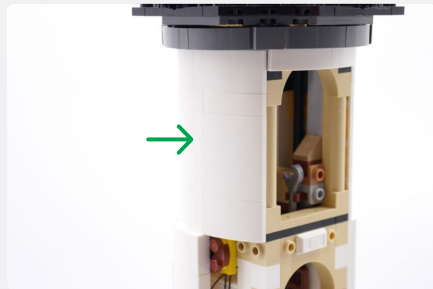
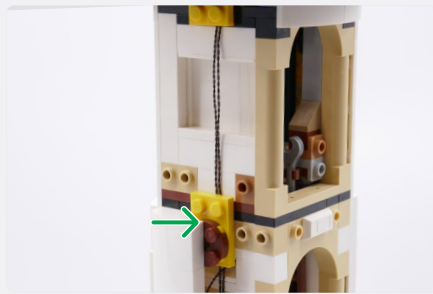
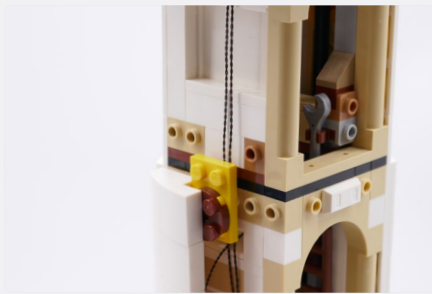
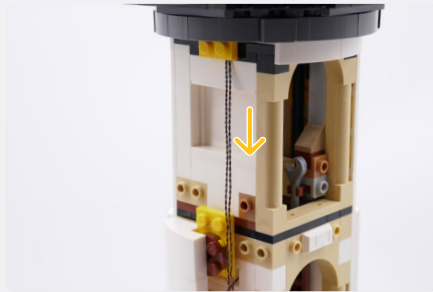
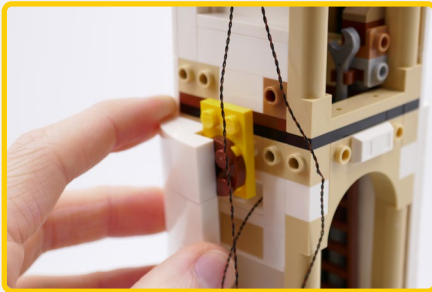
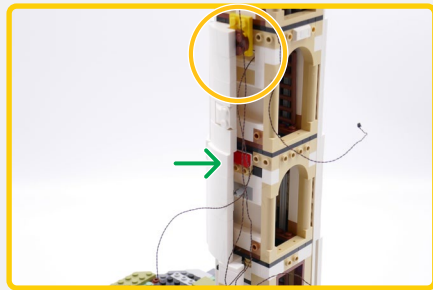


33

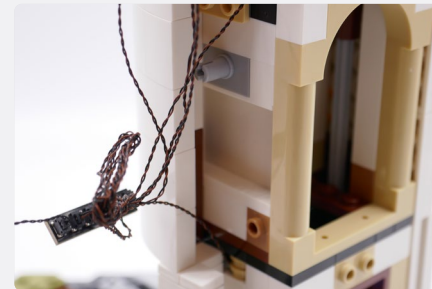
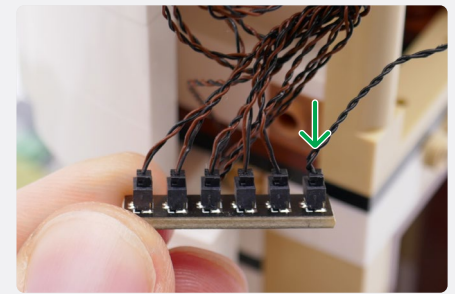
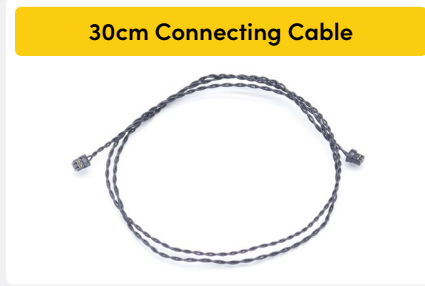
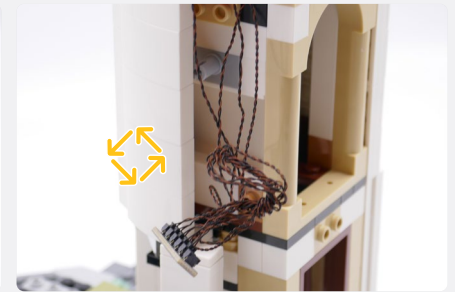
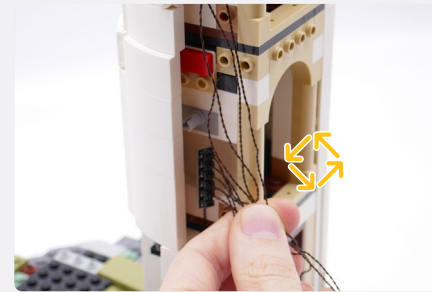
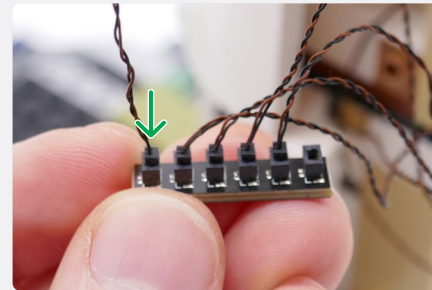


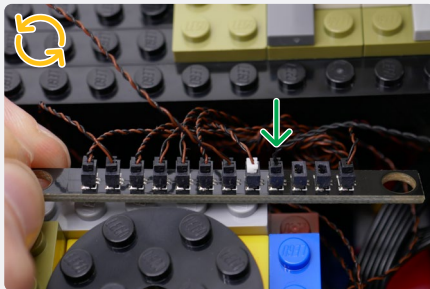
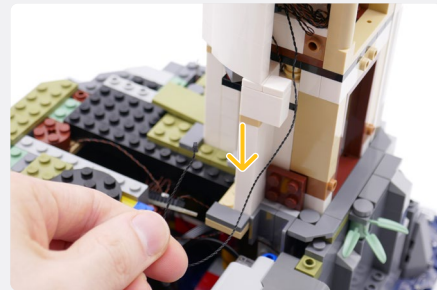
NOTE

Leave the circled yellow plate disconnected when connecting the tower piece.



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NOTE

Connect to a 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)



NOTE

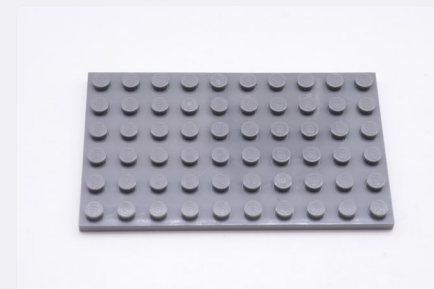
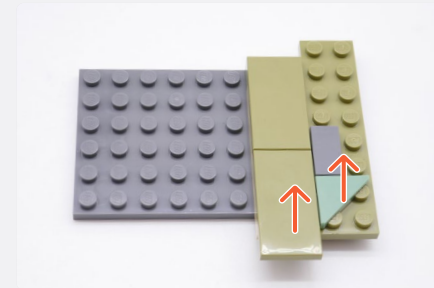
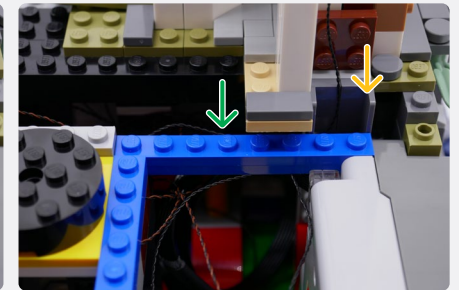
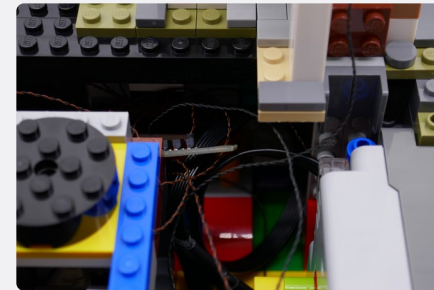
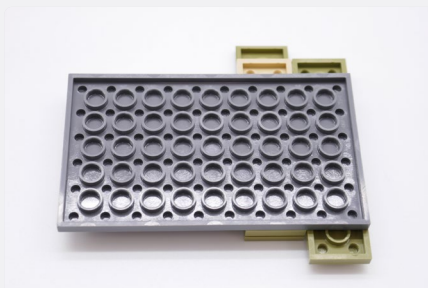
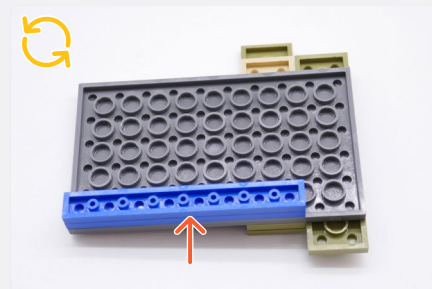
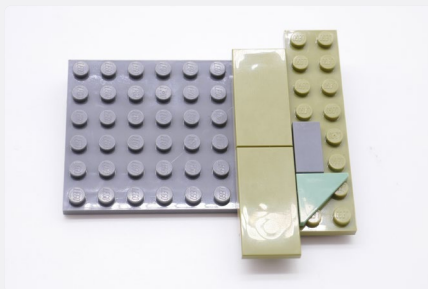
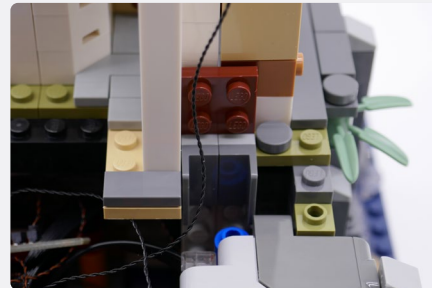
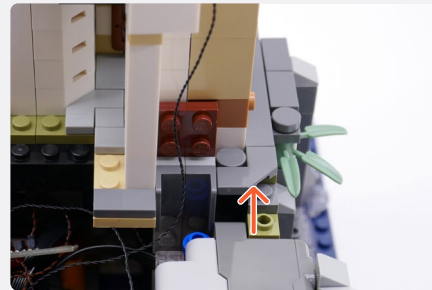
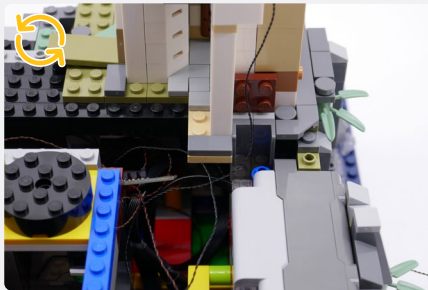
Switch on the LEGO motor to check if the beacon still rotates smoothly. If not, the gears may not be properly touching.



If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion board issues in our troubleshooting section.

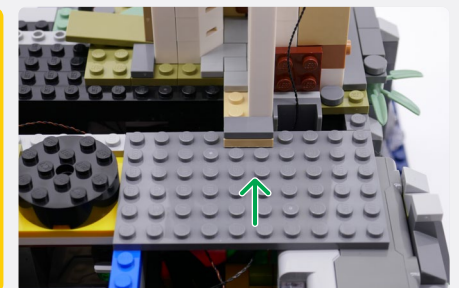
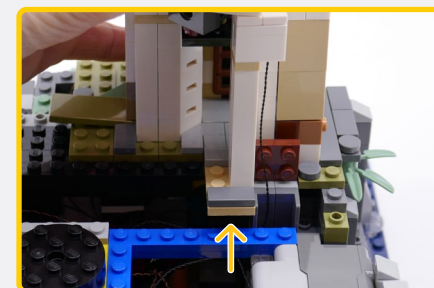


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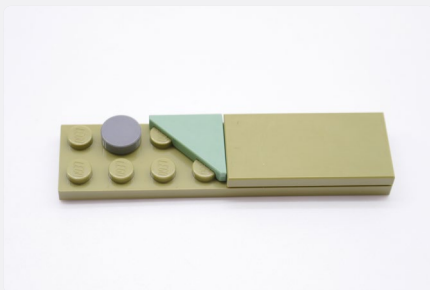
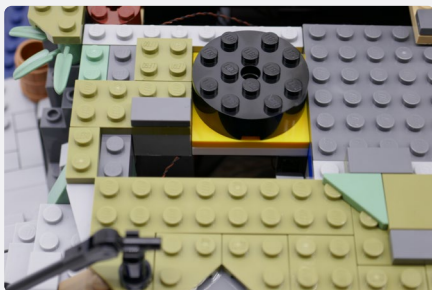
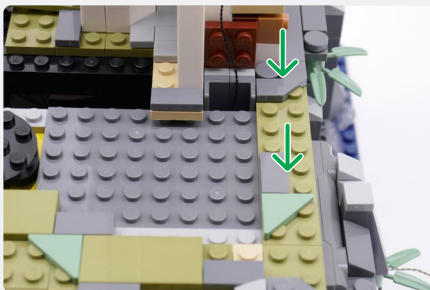
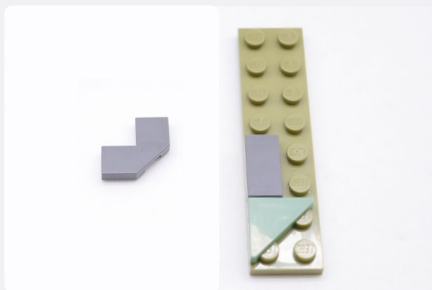
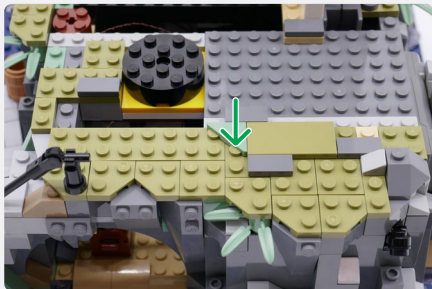
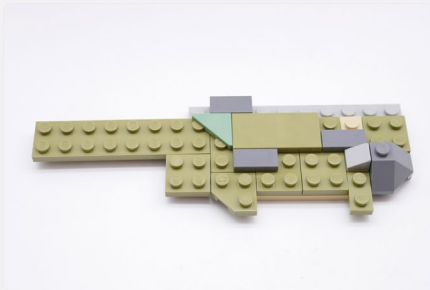


NOTE

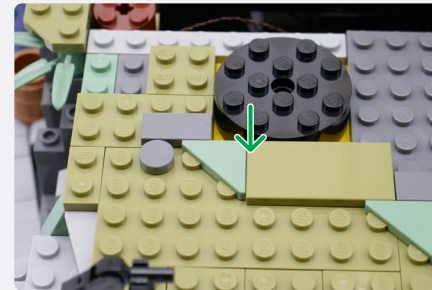
Slightly lift the tower so the large grey plate can fit under the tan plate and connect.



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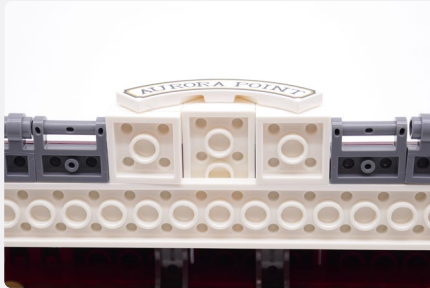
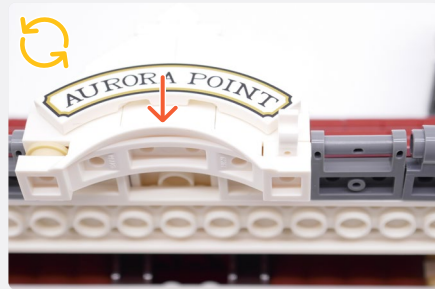


37

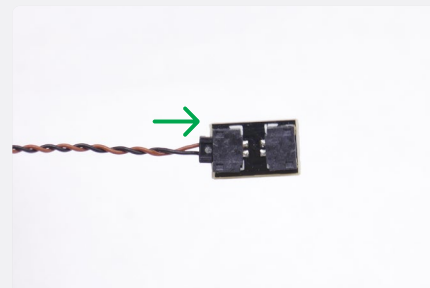
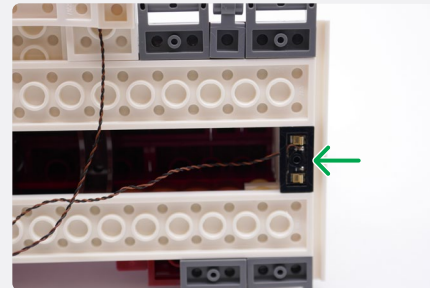
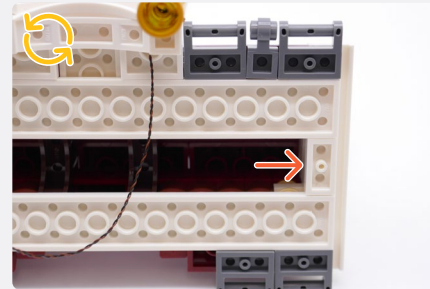


Yellow 30cm Bit Light





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Wireless Power Connector Stud

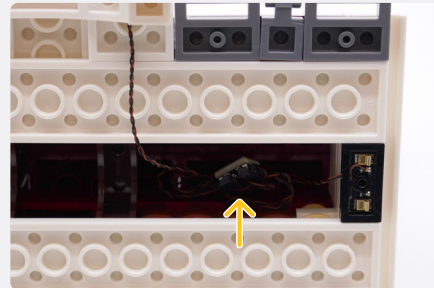
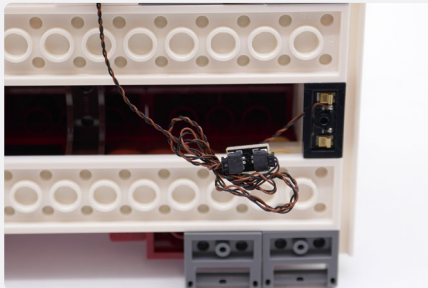
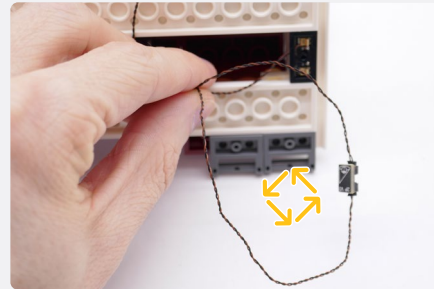
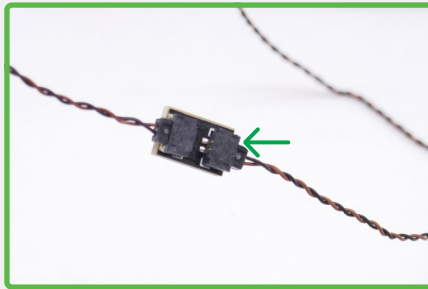


2-Port Expansion Board

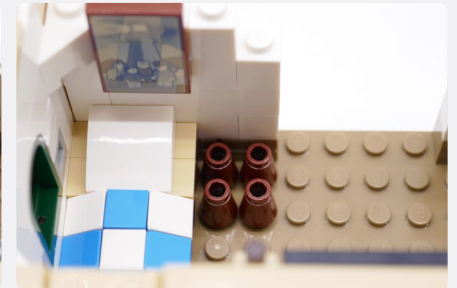


NOTE

Take the cable from the Yellow 30cm Bit Light and connect it into the 2-Port Expansion Board.



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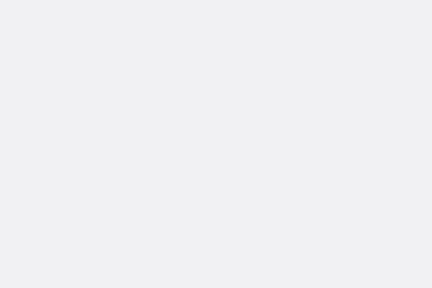


Round Plate 1x1 Open Stud - Gold

Orange 30cm Bit Light



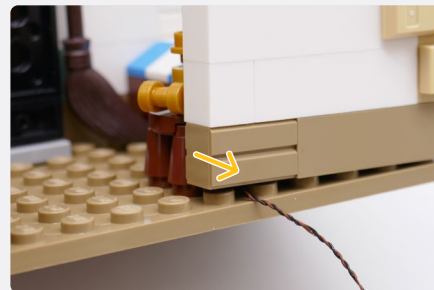
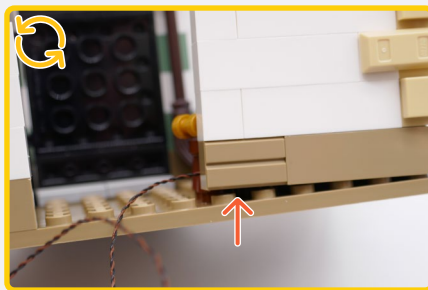
NOTE
Do not press the gold stud down far as the cable may break. Ensure the bit light is in this position when connecting.

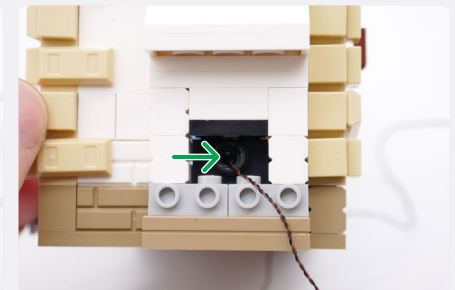


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NOTE

Partially lift up the wall section for the cable to fit underneath.

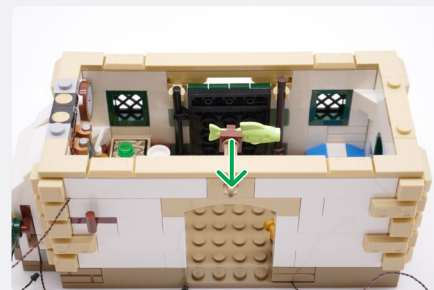
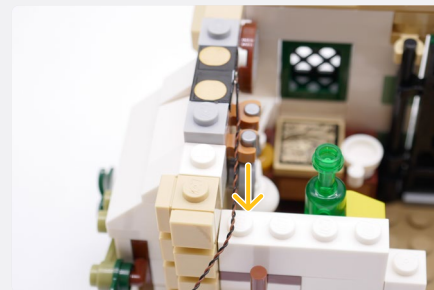
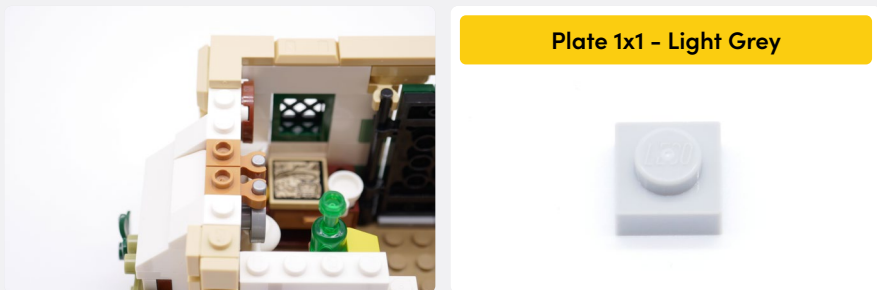
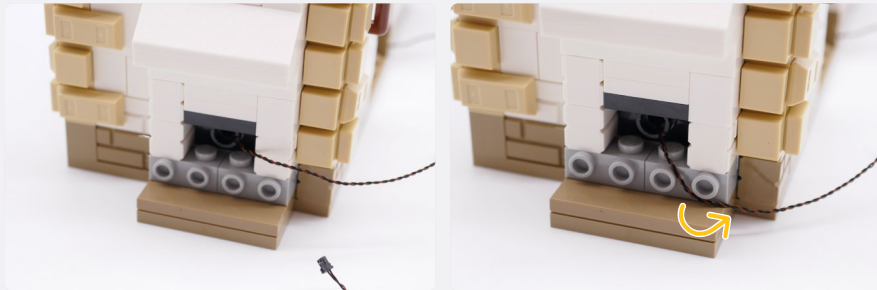

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Round Plate 1x1 Open Stud - Black

Orange 30cm Large Bit Light


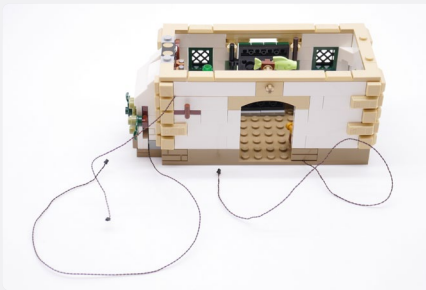
NOTE

If you have trouble connecting the black stud, press down with LEGO tool or similar.



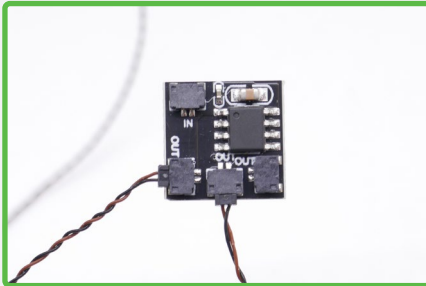


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NOTE

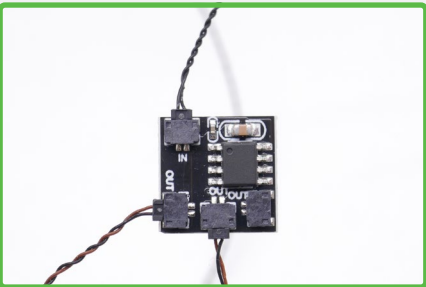
Connect the Large Orange Bit Light from the fireplace, and Orange Bit Light from the candle to the "OUT" ports of the Flicker Effects Board.



5cm Connecting Cable

NOTE

Connect the 5cm Connecting Cable into the "IN" port of the Flicker Effects Board

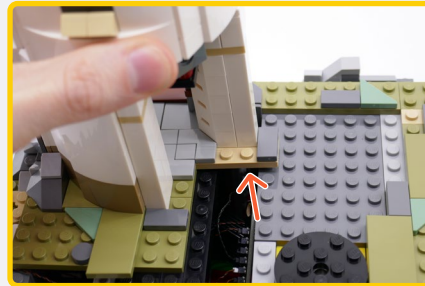


44



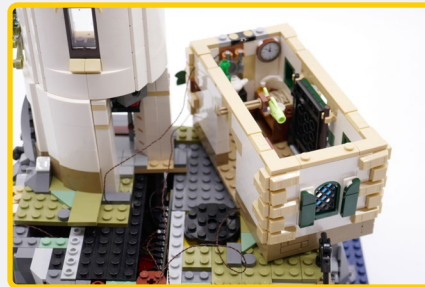
NOTE

Slightly lift up the tower to leave a small gap between the tan plate and large grey plate.



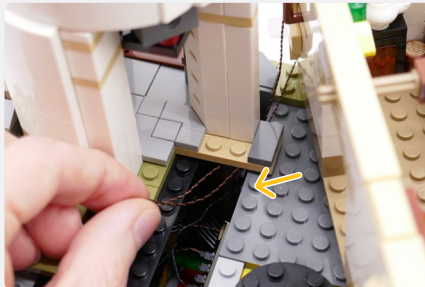
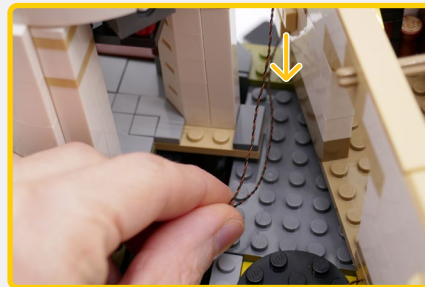
NOTE

Place the house on the base but do not connect it at all.



NOTE

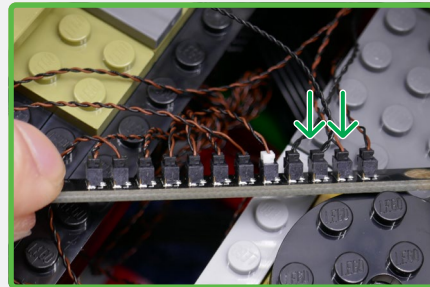
Take the two cables from the back of the house and run underneath the tan plate.



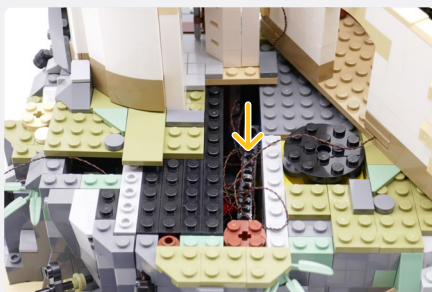


NOTE

Connect both loose cables from the house to the 12-Port Expansion Board.

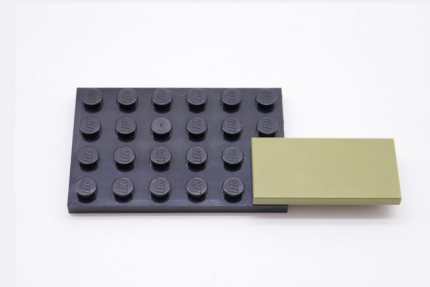
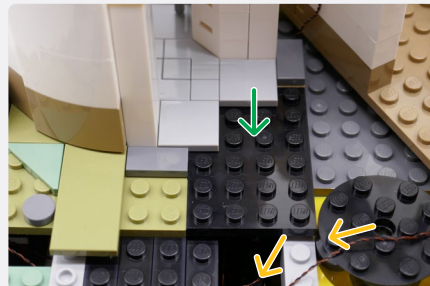


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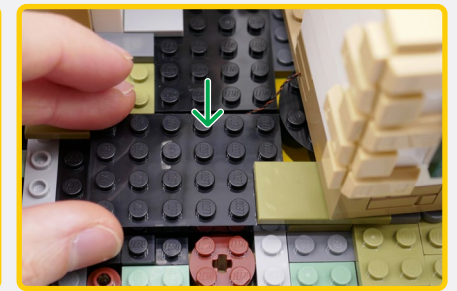
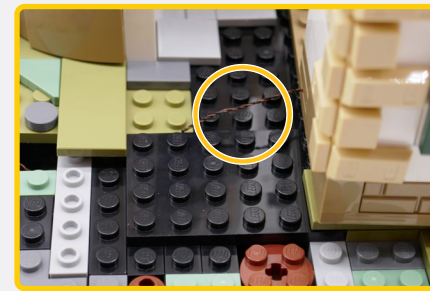
NOTE

Ensure the cable from the candle inside the house is positioned as shown.

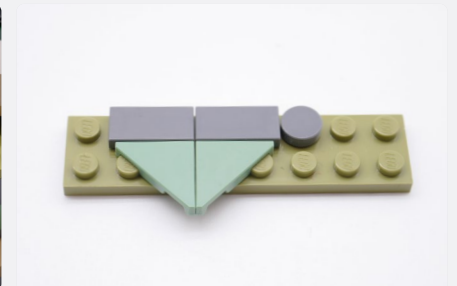
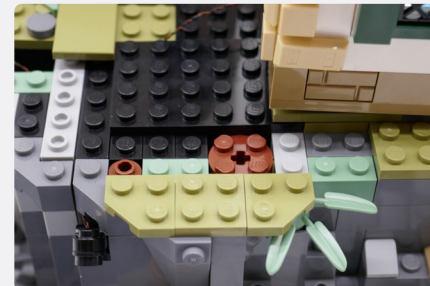


NOTE

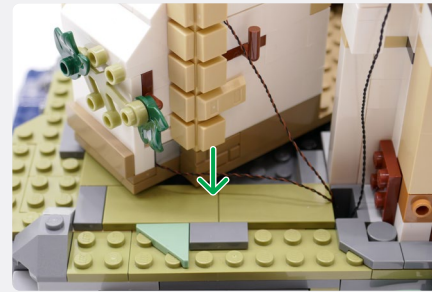
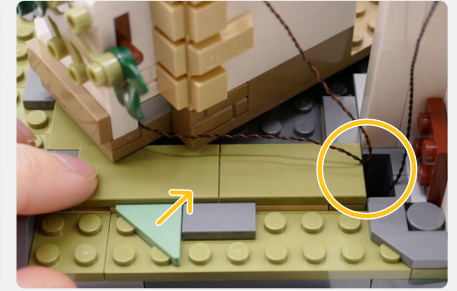
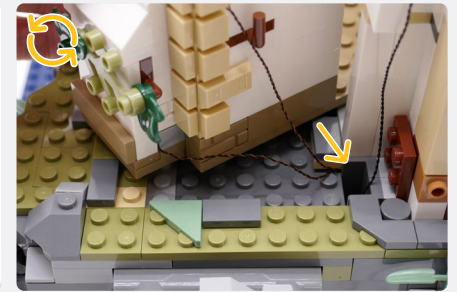
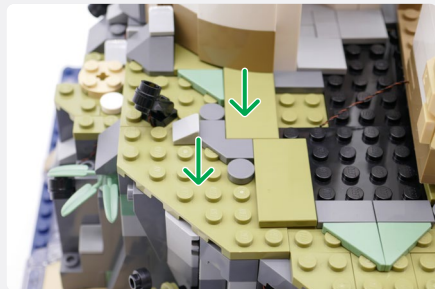
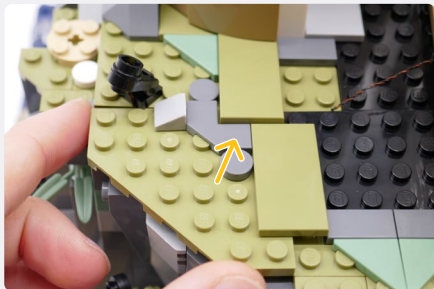
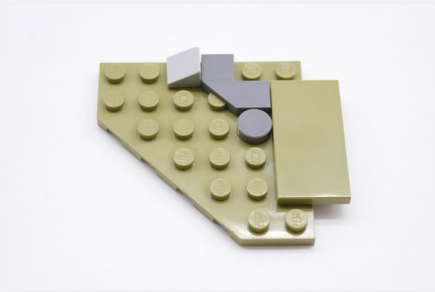
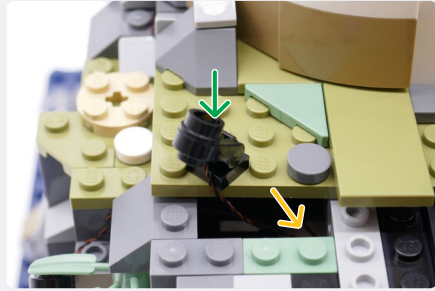
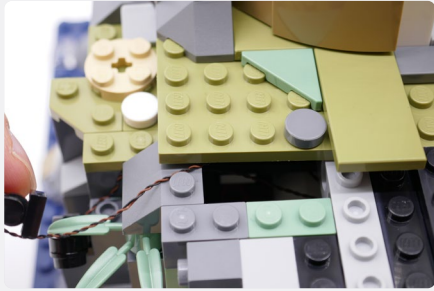
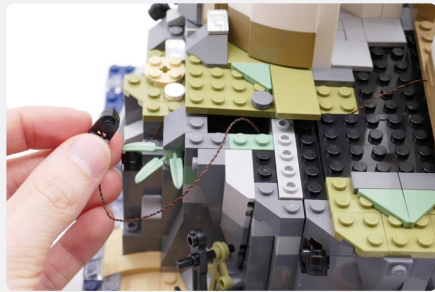
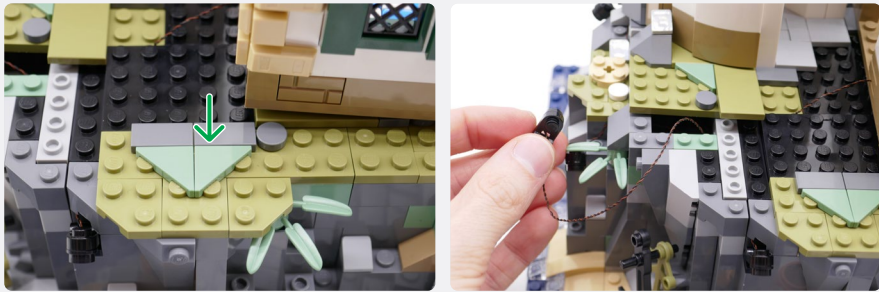
Ensure there is enough cable slack from the candle as shown (~ 5cm) before reconnecting the Black Plate.




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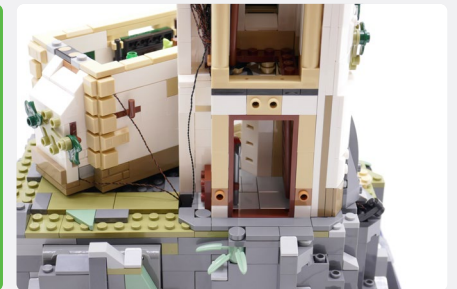


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 **NOTE**

Ensure to properly press down the lighthouse tower so all sides are connected to the base.

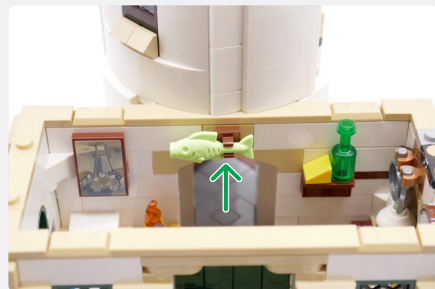


48

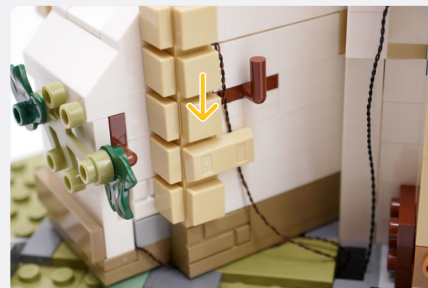
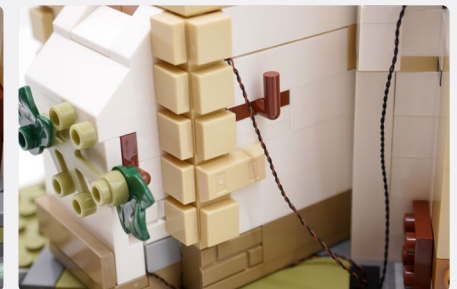
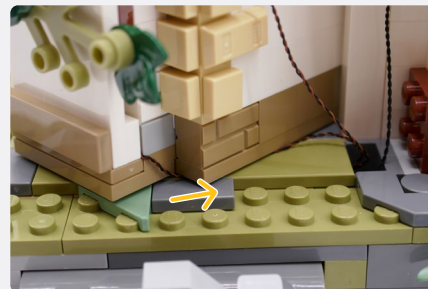
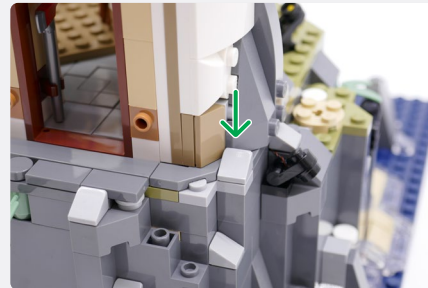


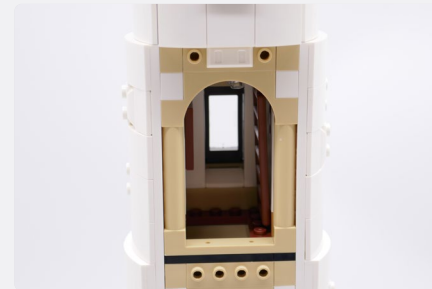
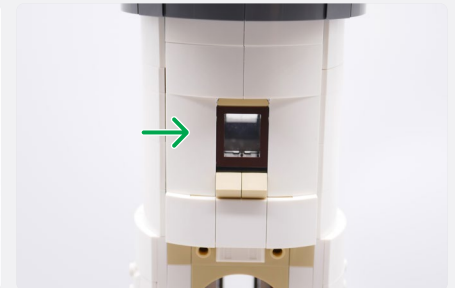
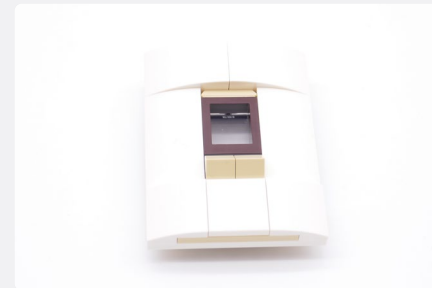
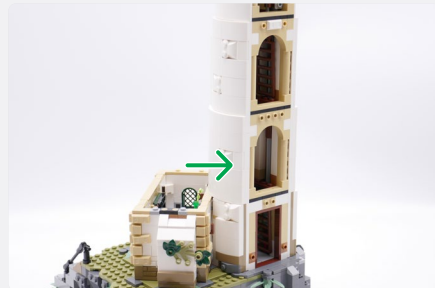
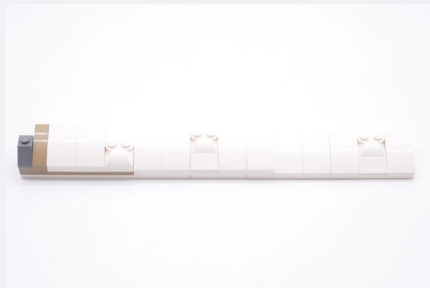
NOTE

If the house does not reconnect properly, ensure the studs on the black circle brick are lined up with the house base plate.

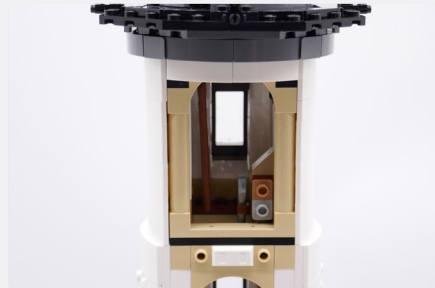
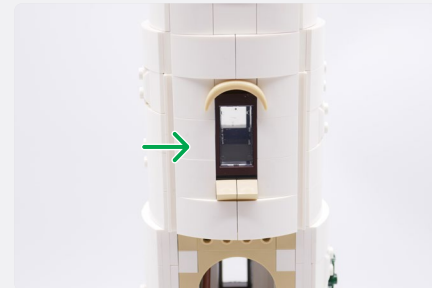


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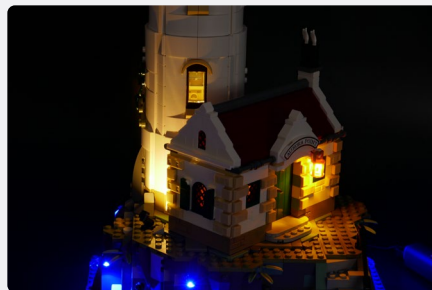
50





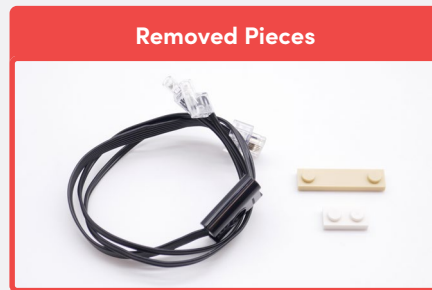
NOTE

Connect to a 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)



NOTE

You should have these parts left over that were removed from the LEGO set



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FINAL PRODUCT

This finally completes installation of the Light My Bricks

LEGO® Motorised Lighthouse 21335 Light Kit.





TROUBLESHOOTING

Light My Bricks lighting kits contain individual components that are very small and can be easily damaged if not handled correctly.

To prevent unnecessary damage to components, we highly recommend that the User Guide section, **“Important things to note”** is read carefully. Follow the handling procedures in the User Guide to help prevent faults and damages to your Light My Bricks components.

If you are experiencing issues with your Light My Bricks set, watch our troubleshooting video [here](#) or read on for a list of common causes to help you troubleshoot.

Troubleshooting

Firstly, ensure that the batteries have power using a battery charge gauge.

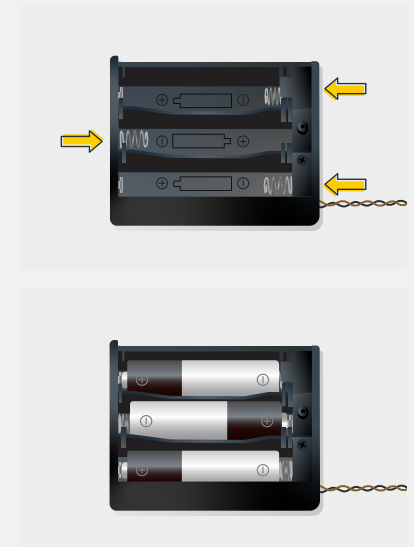
If the batteries have no power, replace the batteries.

If the batteries still have power, check to see if the batteries have been inserted correctly into the battery pack.

Check for AA batteries using the AA battery pack

Inside the battery pack are symbols indicating which direction the AA battery should be inserted. The flat side of the battery should be paired with the spring side of the battery pack.

If the batteries have been installed correctly and your kit still isn't operating correctly, the next step is to check the wiring.



Troubleshooting

Check Your Wires

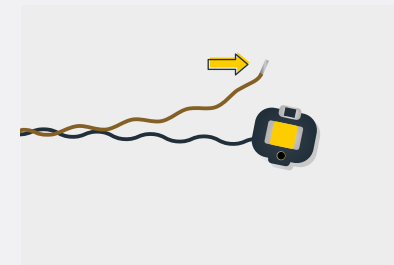
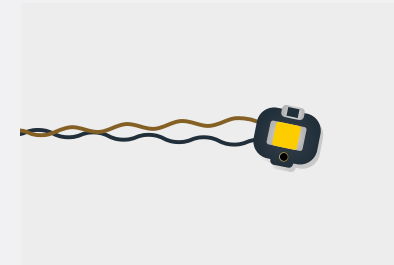
In order for Light My Bricks components to fit in between and underneath LEGO® bricks, the components need to be very small. Due to this nature, Light My Bricks components can be easily damaged when not handled correctly.

Be careful when removing unpacked components out of the packaging and ensure not to forcibly pull at the wires as this can damage the soldering that attach the wires to the LEDs.

If the wiring is detached from the LED itself, the light will not operate.

When connecting lights to your LEGO® set, check that there are no pinched wires underneath or in between bricks and plates.

When the wires are pinched and the exposed wires are touching each other, this can cause a crosswire and the lights to not function correctly.



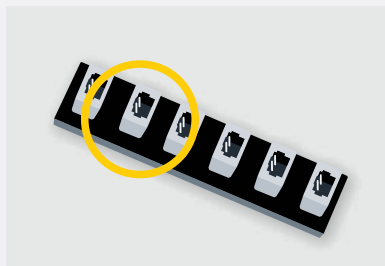
Troubleshooting

Check Your Expansion Board Ports/ Strip Light Ports / Effects Board Ports

It is important to note that connectors can only be inserted to the expansion board, strip light, or effects board ports in one direction.

Forcibly inserting connectors in the incorrect direction will result in damaging the pins inside each of the ports on your component board.

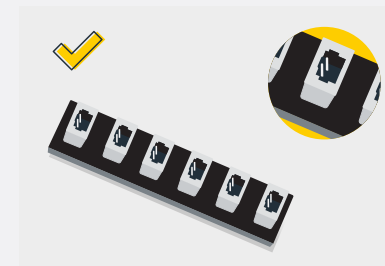
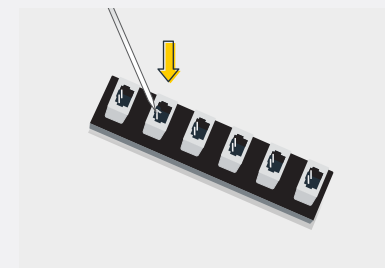
Not only will a light connected to the damaged port not work, but if the pins inside the port are bent to a point they are touching each other, this can result in all other lights in the system to stop working. This is a short circuit.



A short circuit can also result in overheating of the board, cable or batteries. If you suspect a short circuit, **DISCONNECT POWER IMMEDIATELY**. Batteries can fail, catch fire, or even explode if left connected to a short circuit for too long.

If you suspect you have a faulty component due to a bent pin, try the following steps:

If you look carefully inside each of the ports, each port contains 2 small pins that should be straight. You will be able to identify a faulty port if it has any bent pins.





CONTACT US

If you have an enquiry regarding the online shop, our products or a general enquiry please refer to our Frequently Asked Questions webpage here.

Alternatively, you can contact our Customer Services team by visiting our online support portal here.

support.lightmybricks.com

We thank you for purchasing this product and hope you enjoy!



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