

LEGO® DISNEY CASTLE #43222 LIGHT KIT INSTALLATION GUIDE



Light My Bricks



Hi There!

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

Disney Castle 43222 Light Kit.

This PDF details the instructions for the LED light kit only. If you are wishing to purchase this product, please <u>click here</u> 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:

Individual Bags



- 12 x White 30cm Bit Light *
- 17 x Warm White 30cm Micro Bit Light *
- 1 x Yellow 15cm Bit Light
- 3 x Yellow 30cm Bit Light
- 4 x Cool White 30cm Bit Light
- 12 x White 15cm Bit Light
- 1 x Green 30cm Bit Light
- 1 x Pink 30cm Bit Light
- 3 x Warm White 15cm Micro Bit Light
- 1 x Blue 15cm Micro Bit Light
- 1 x Warm White 30cm Headlight
- 2 x Wireless Power Connectors (Pairs)

USB Power Cable



2x USB Power Cable (Power Source not Included)

Connecting Cables



- 6 x 5cm Connecting Cable
- 4 x 15cm Connecting Cable
- 4 x 30cm Connecting Cable *
- 2 x 50cm Connecting Cable

Mixed Components 1



- 2 x 6-Port Expansion Board
- 3 x 8-Port Expansion Board
- 2 x 12–Port Expansion Board
- 4 x 2-Port Expansion Boards
- 10 x Adhesive Squares*

Mixed Components 2



- 2 x 4-Port Micro Expansion Board
- 2 x 8-Port Micro Expansion Board
- 2 x Flicker Effects Board

^{*} Indicates components which include spares





PACKAGE CONTENTS:

Mixed Components 3



- 1 x Brick 1x4 Light Bluish Gray
- 1 x Brick 1x2 without Bottom Tube Trans-Clear
- 2 x Brick, Modified 1x1 with Stud on Side Light Bluish Gray

Mixed Components 4



- 6 x Tile, Modified 1x1 with Open O Clip Black
- 1 x Slope 30 1x1 x 2/3 Trans-Clear
- 1 x Brick, Round 1x1 Open Stud Black
- 1 x Brick, Round 1x1 Open Stud Trans-Clear

Mixed Components 5



- 13 x Plate, Round 1x1 with Open Stud Black
- 6 x Plate, Round 1x1 with Open Stud White
- 1 x Plate, Round 1x1 with Open Stud Pearl Gold
- 2 x Plate, Round 1x1 Trans-Light Blue
- 1 x Tile, Round 1x1 Trans-Clear

Mixed Components 6



9 x Plate, Round 2x2 with Rounded Bottom (Boat Stud) - Trans-Clear

Mixed Components 7



- 7 x Plate 1x2 Light Bluish Gray
- 4 x Plate, Round 1x1 with Bar Handle Black
- 2 x Plate, Modified 1x2 with Bar Handle on Side Closed Ends Black
- 1 x Plate 1x2 Trans-Clear

Mixed Components 8



- 4 x Plate 1x6 Black
- 1 x Plate 1x6 Light Bluish Gray
- 1 x Plate 2x4 Black

RGB Components



- 2 x RGB 15cm Connecting Cable
- 2 x RGB IR Control Board 2.0
- 1 x RGB Remote Control
- 2x RGB Strip Light 2.0
- 2x RGB String Light 50cm

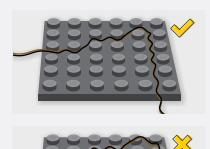
PACKAGE CONTENTS



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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.





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.



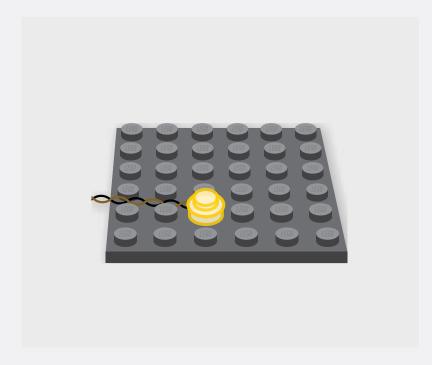
Connecting Micro Cable Connectors To Micro Expansion Board Ports

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.



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.









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.



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.





Repeat Step

Repeat the previous step eg.

Make a spotlight, then make a second spotlight.



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

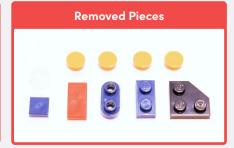
Connect to a 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)



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NOTE

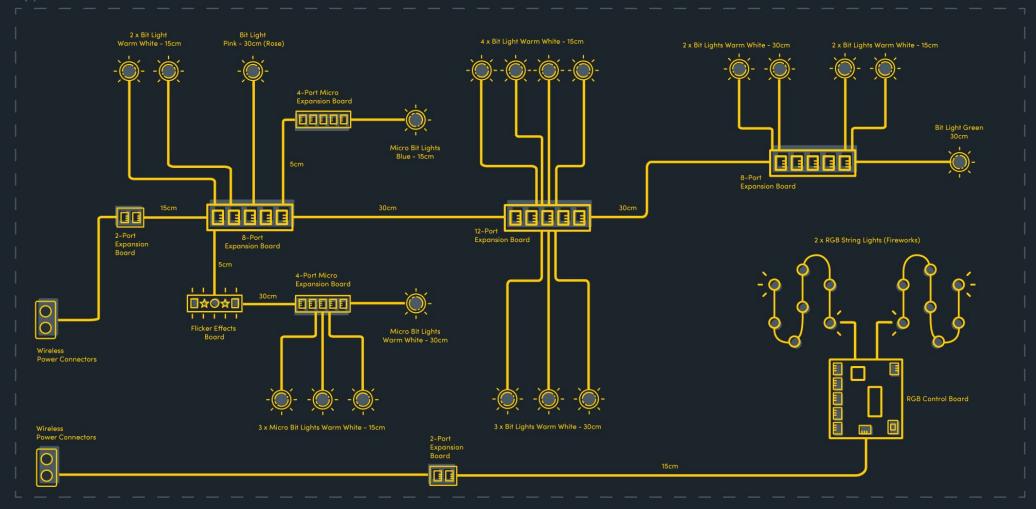
You should have these parts left over that were removed from the LEGO set





BLUEPRINT

Upper Section of Castle

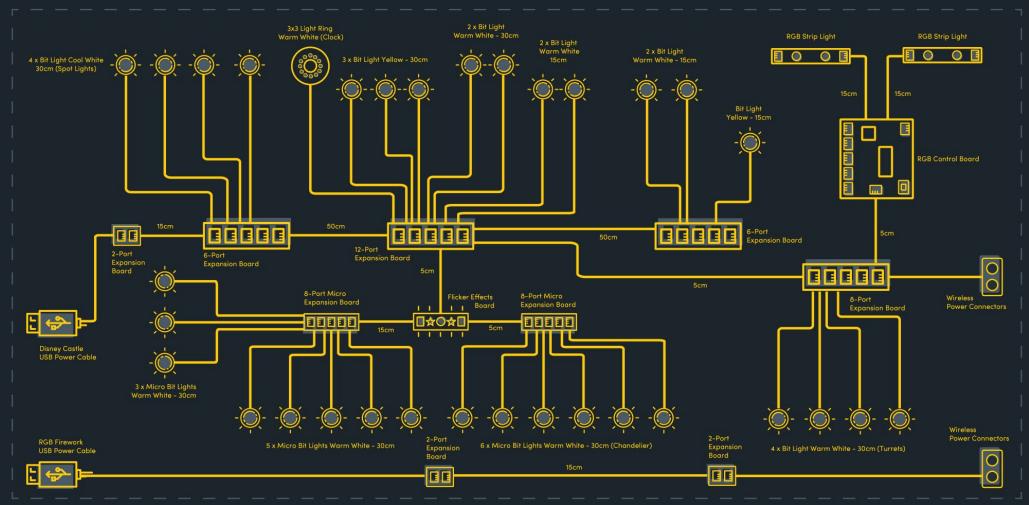


BLUEPRINT





Lower Section of Castle





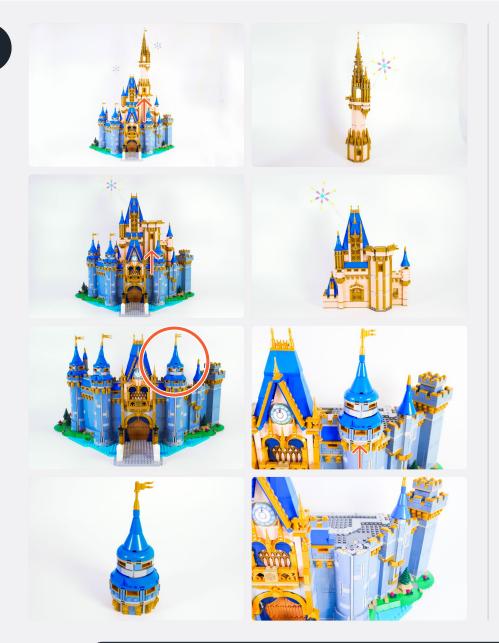


INSTRUCTIONS

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.

INSTRUCTIONS







INSTRUCTIONS







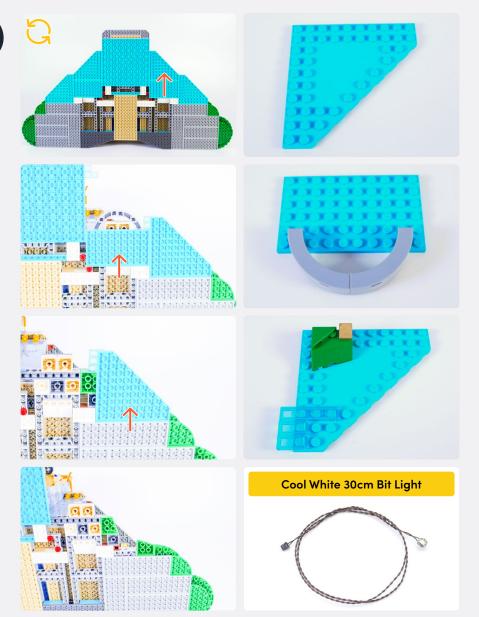


















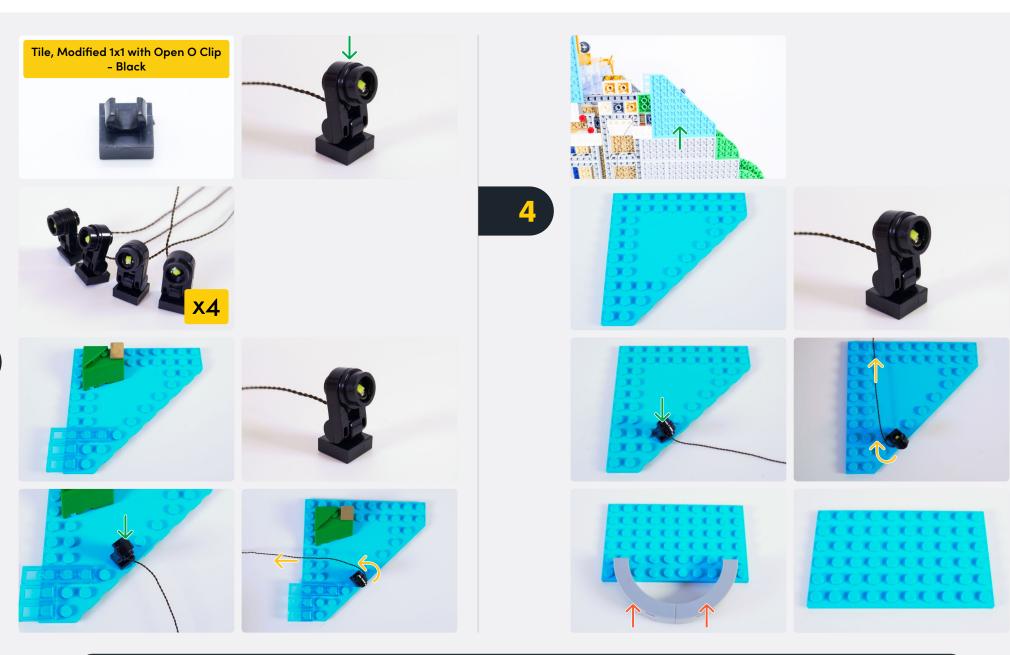










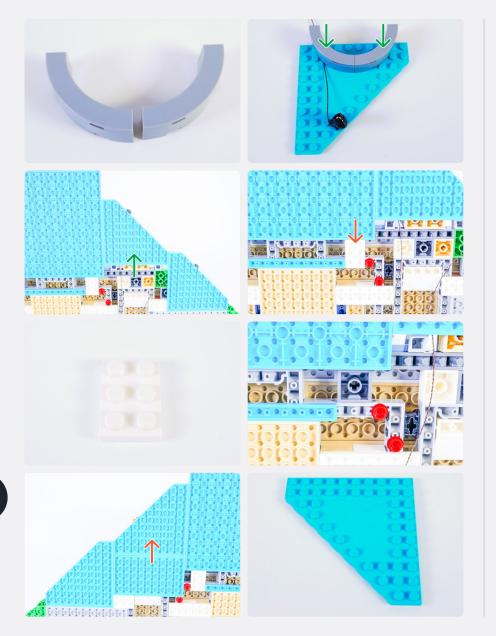


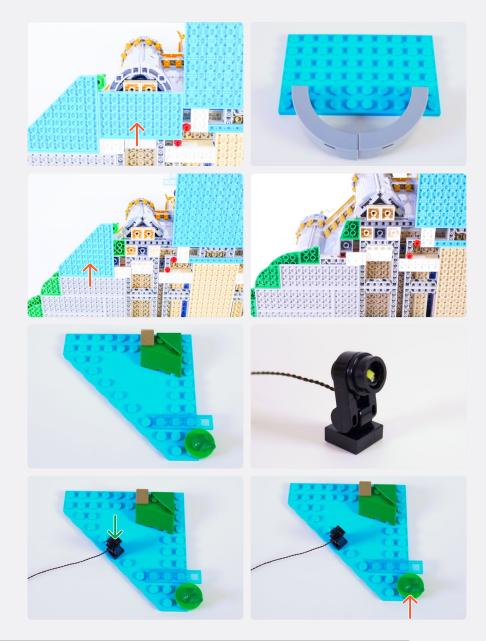


















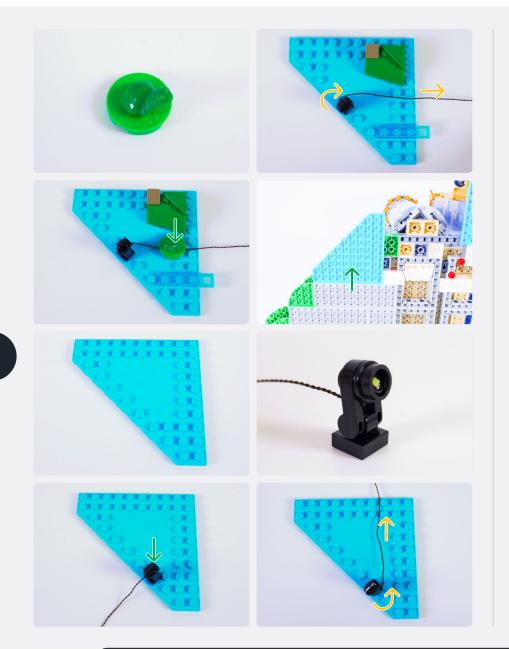


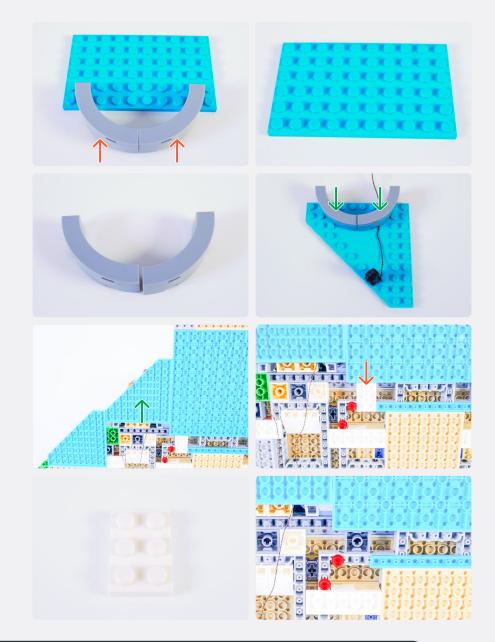










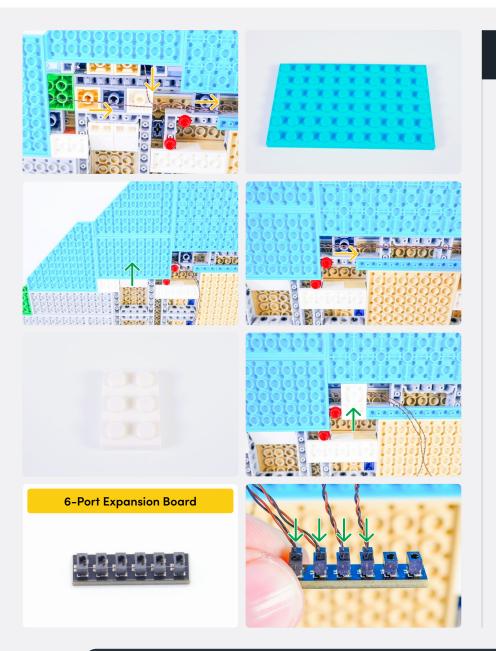




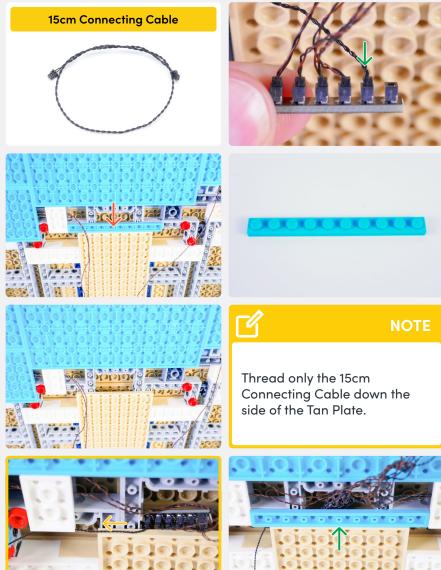


















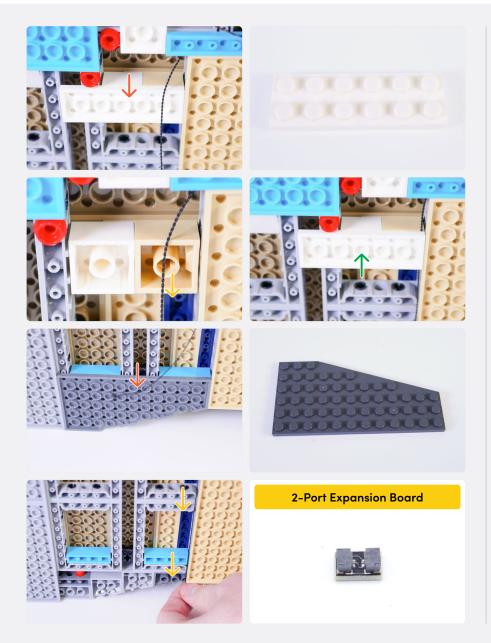










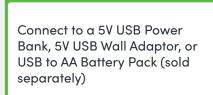


















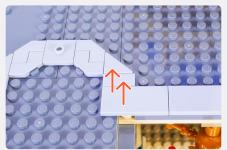


NOTE



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.

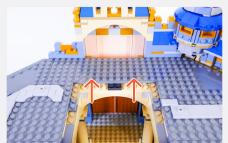


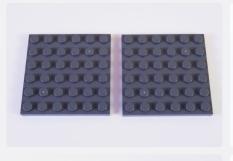




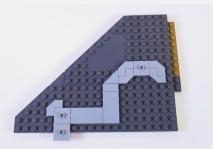






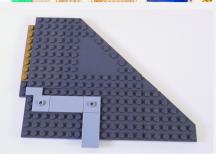
















































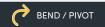


Ensure the LED side of the Bit Light is facing up.









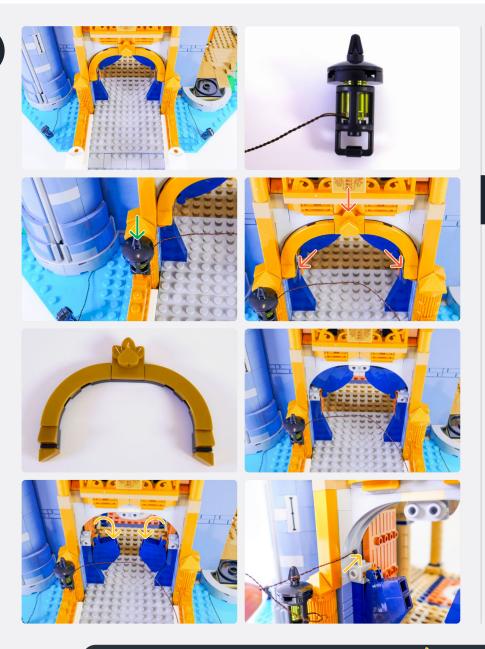


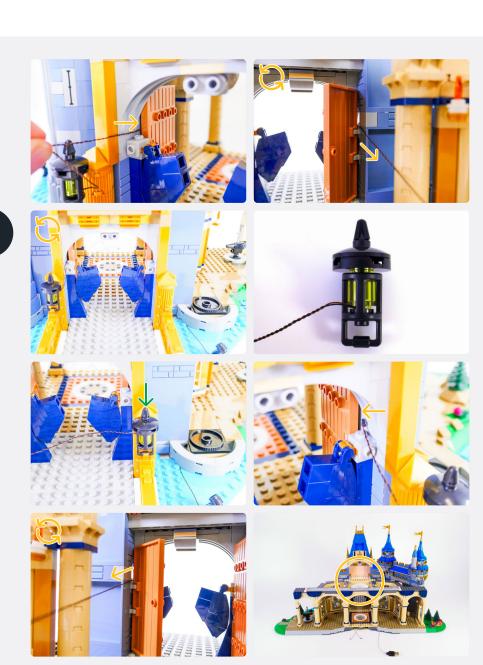








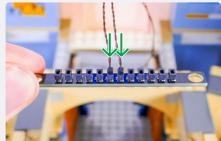




























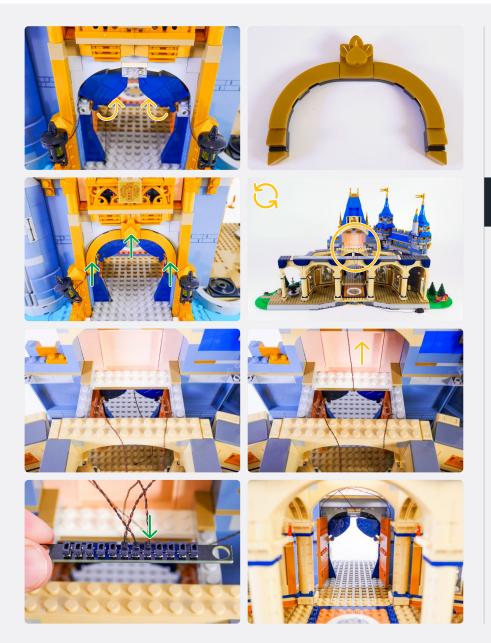




















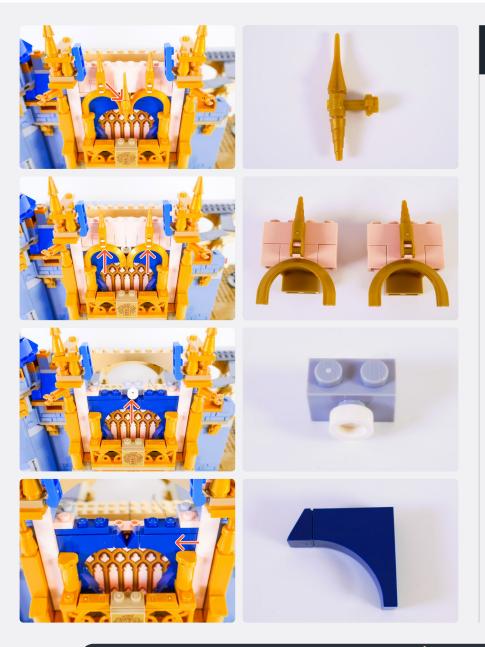


















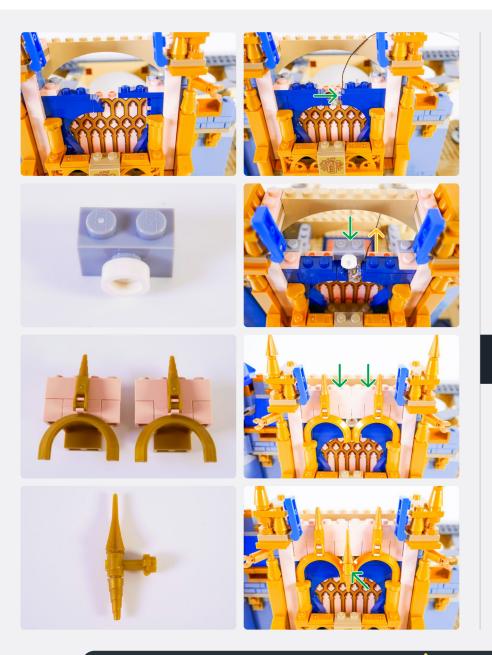




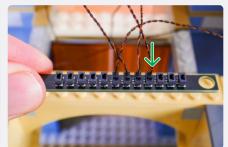
















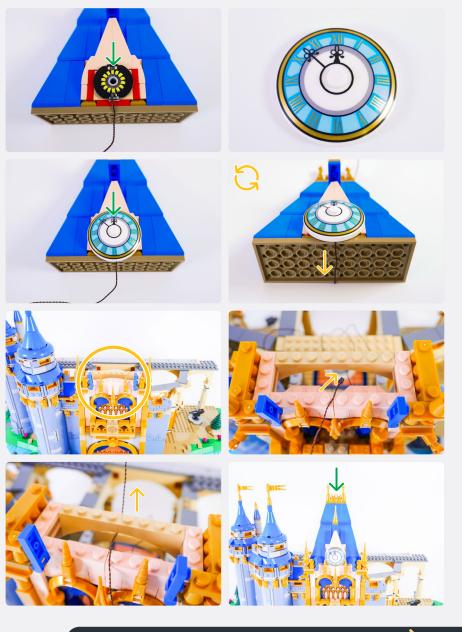


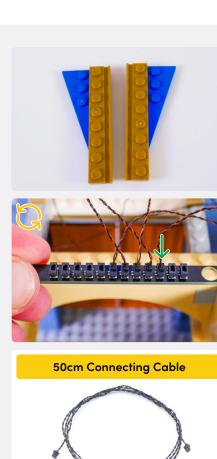




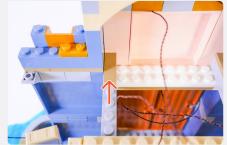








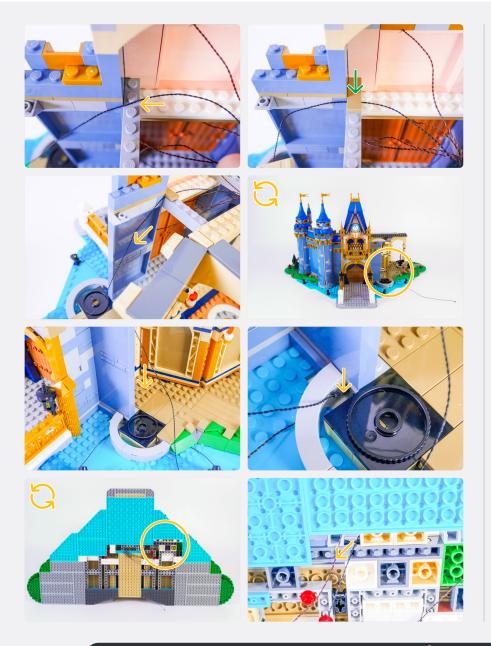


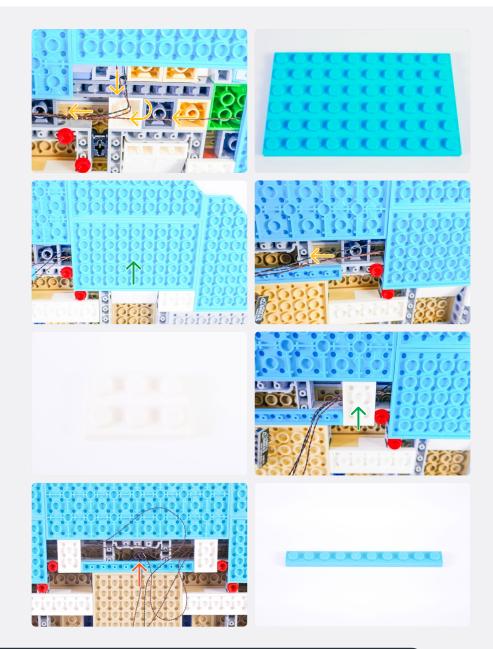




Stringering)











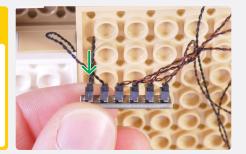


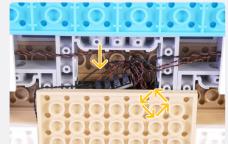




NOTE

Connect the 50cm Connecting Cable to the 6-Port Expansion Board from Step 6.





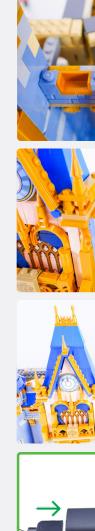


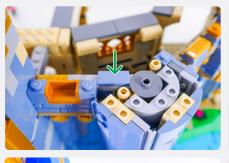
















































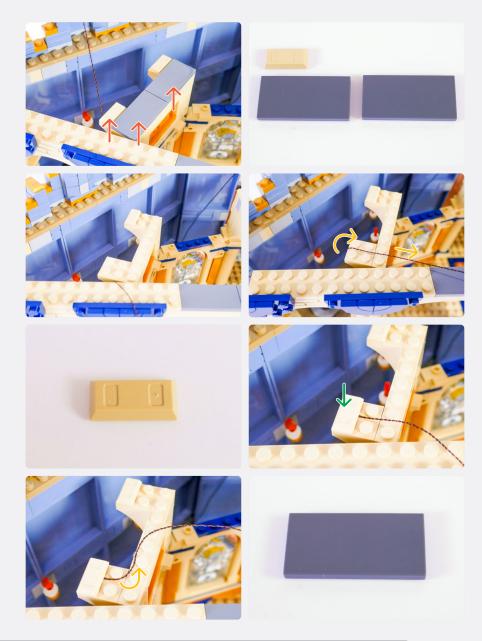


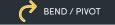


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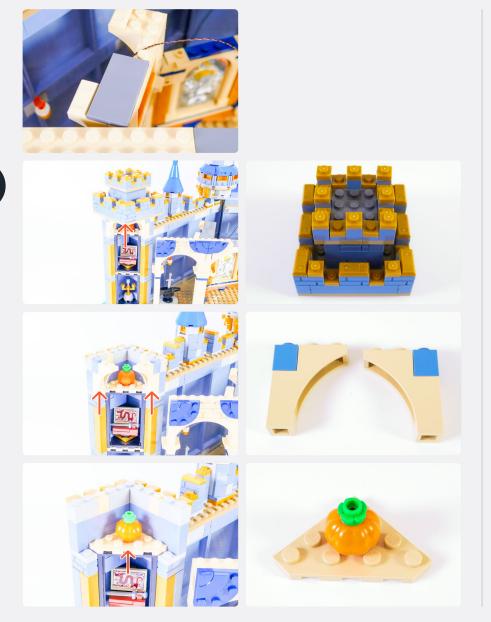


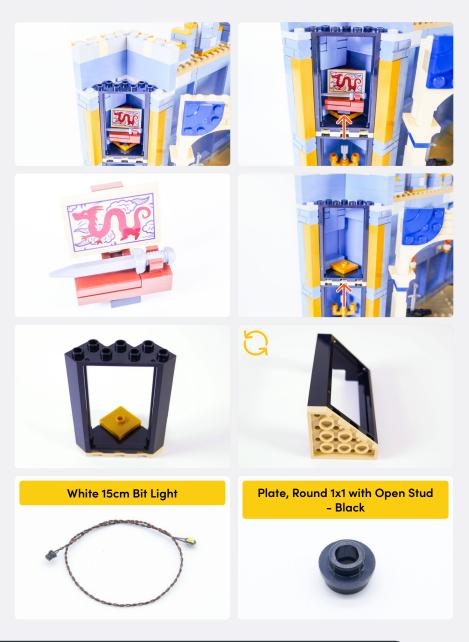












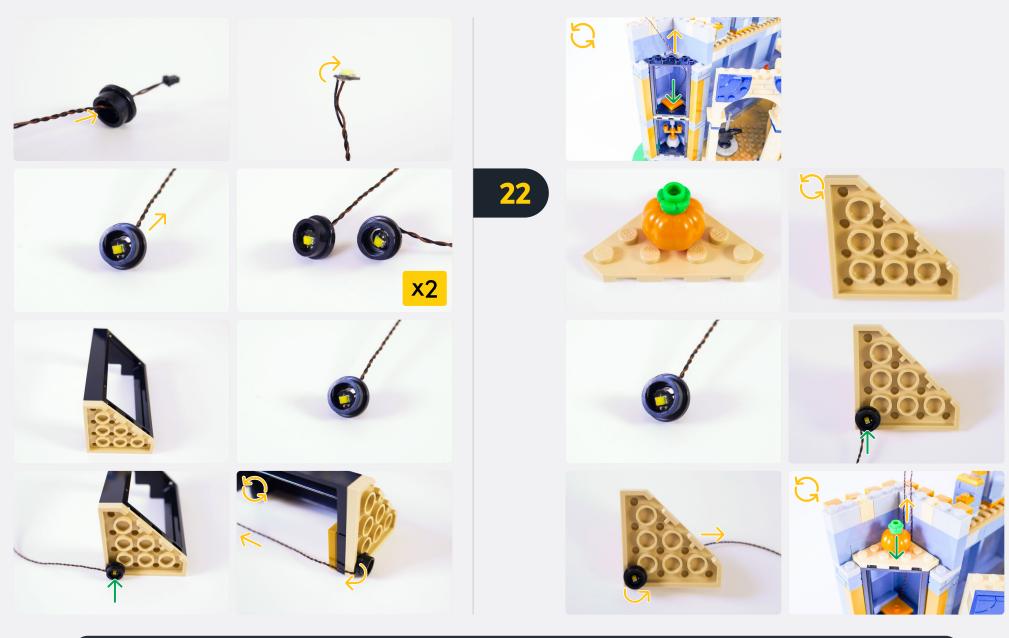












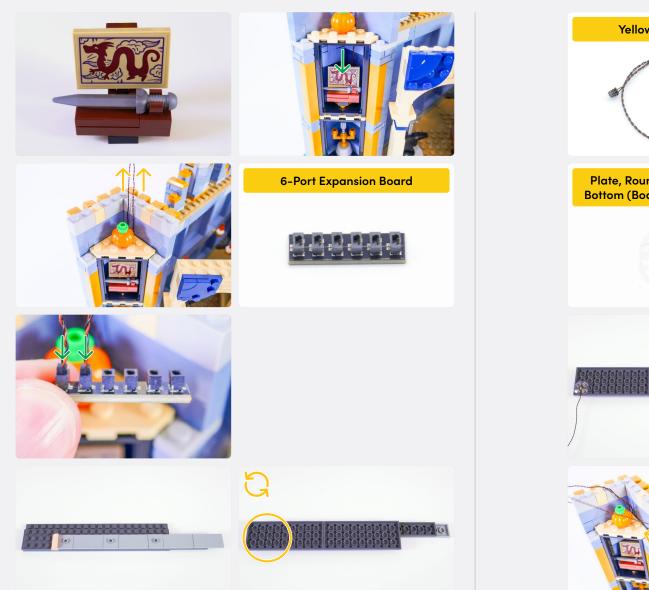


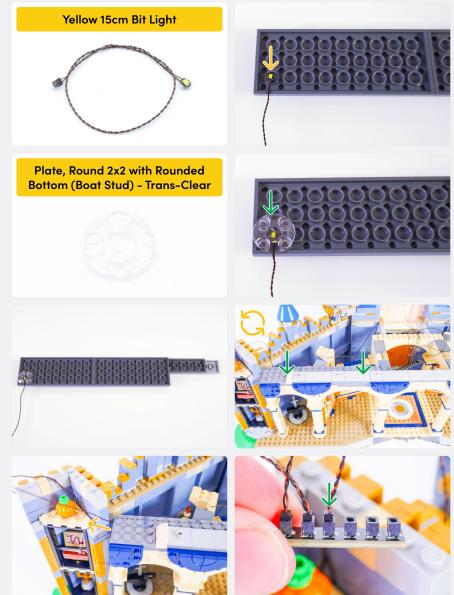










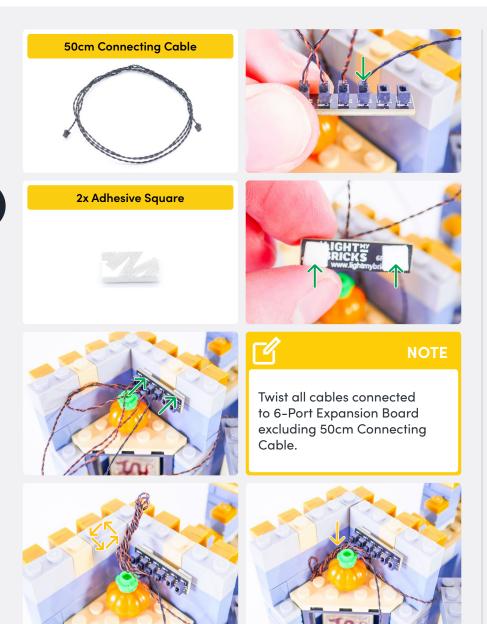


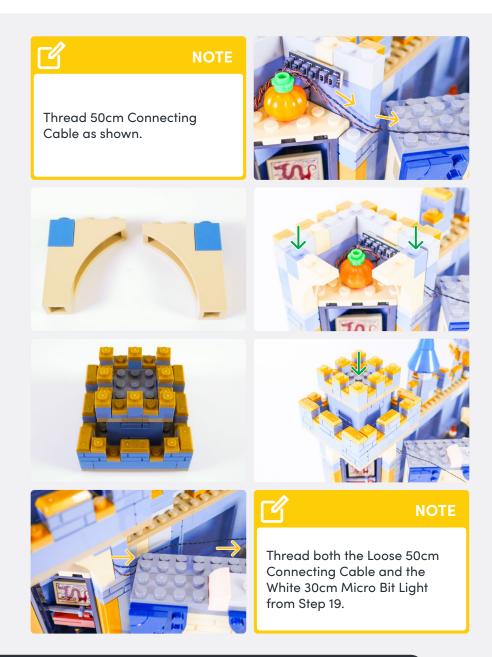
INSTRUCTIONS







































Thread the first candle from this step along with the 50cm Connecting Cable and candle that was just installed.















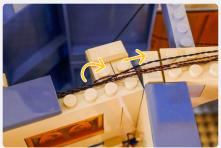


Thread the second candle from this step along with the cables from the previous images.







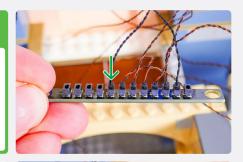






NOTE

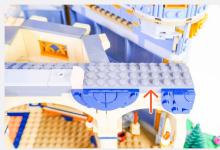
Connect the 50cm Connecting Cable to the 12-Port Expansion Board. Then connect the 3x Micro Bit Lights into a 8-Port Micro Expansion Board.



8-Port Micro Expansion Board













NOTE









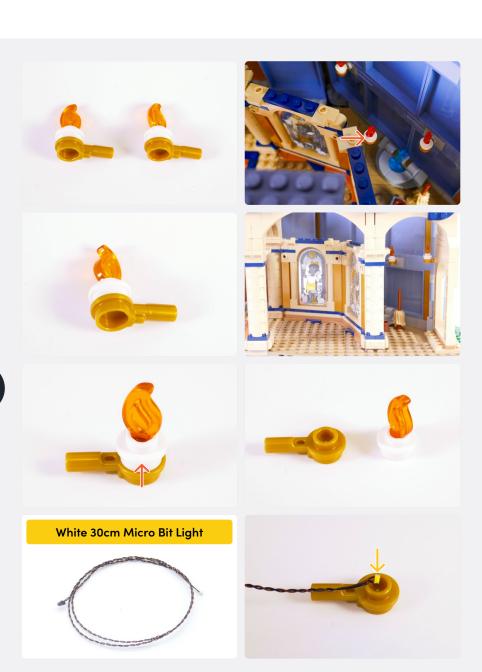












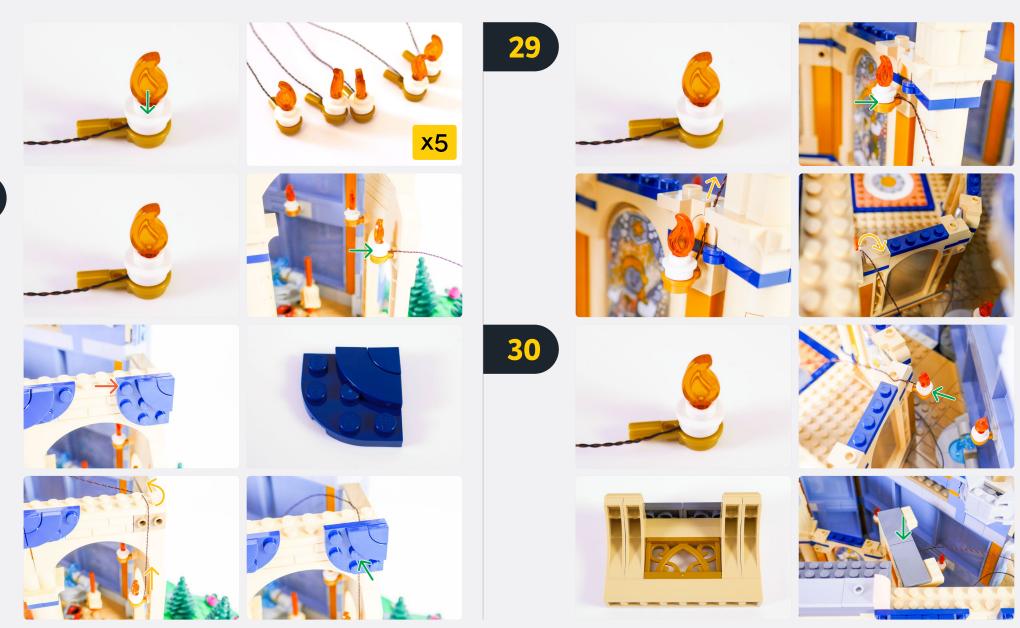










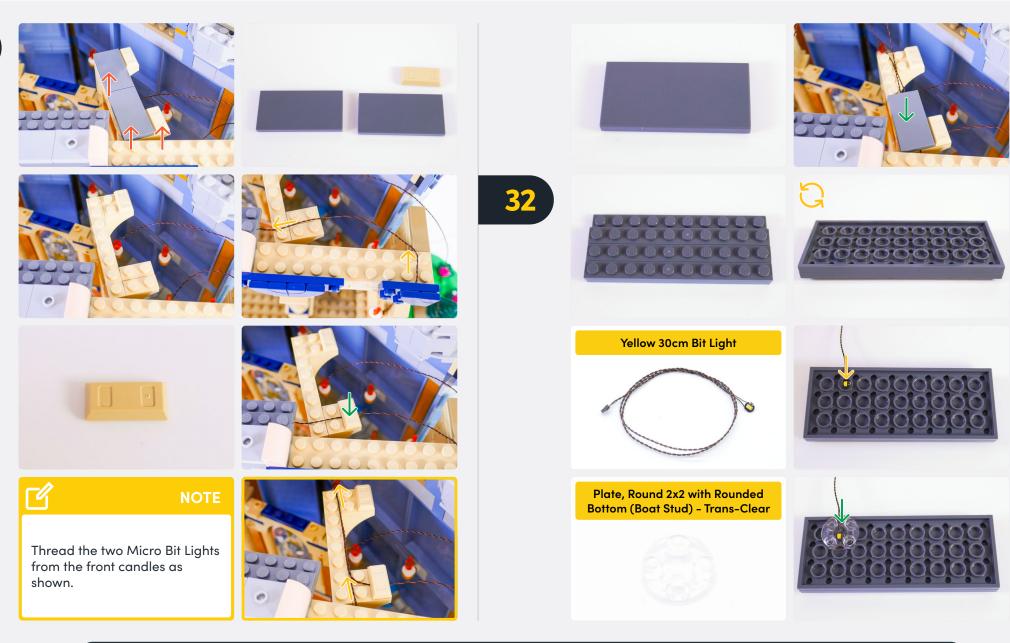


















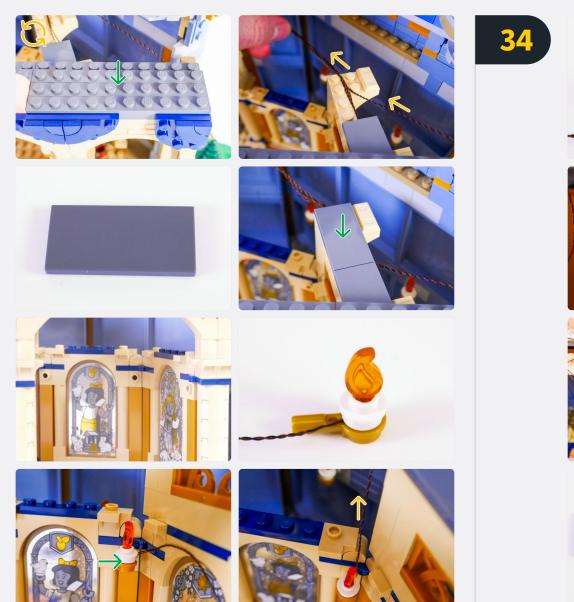


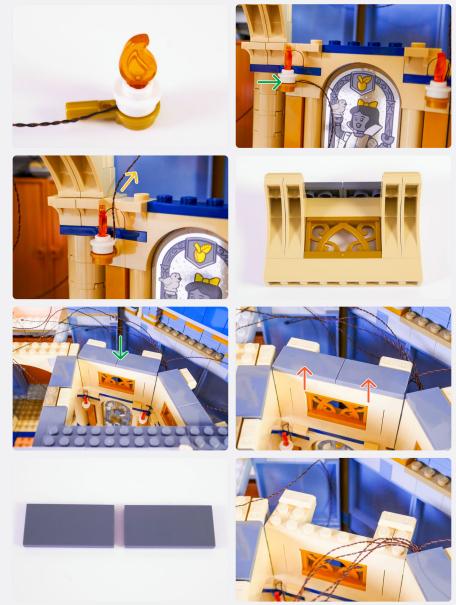














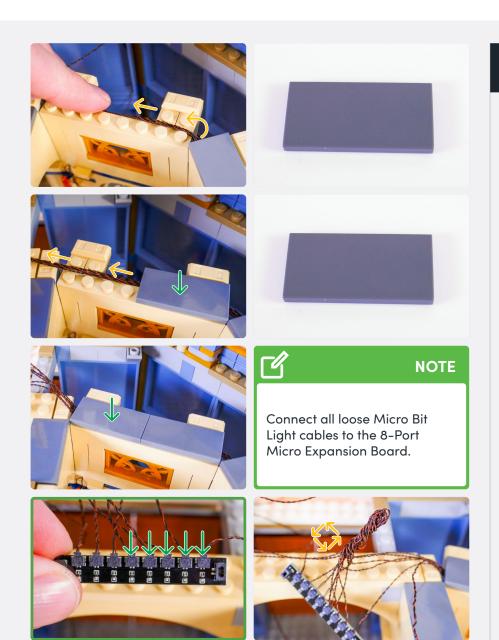


















Flicker Effects Board





Connect the "+5V" Port of the Flicker Effects Board to the 12-Port Expansion Board using a 5cm Connecting Cable.

















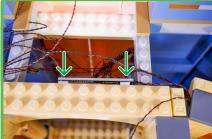


Attach the Micro 8-Port Expansion Board to the back of the Tan arch pieces using Adhesive Squares.





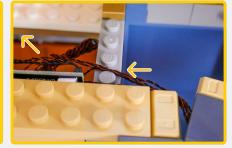


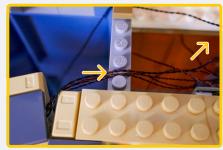




NOTE

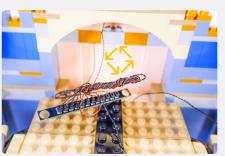
Thread the cables from both sides between the studs as shown and towards the front of the castle.













NOTE

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

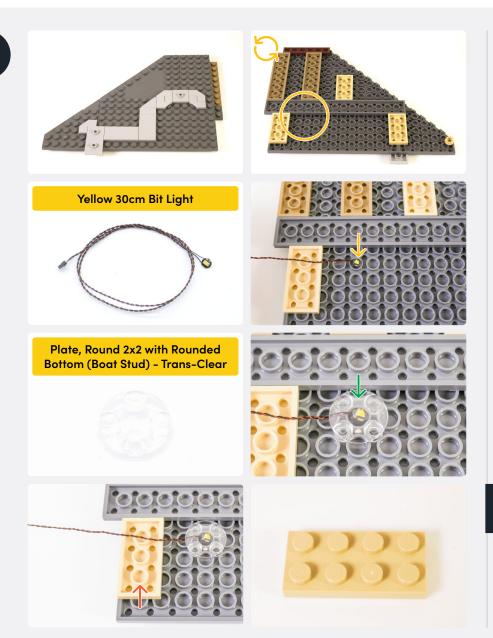


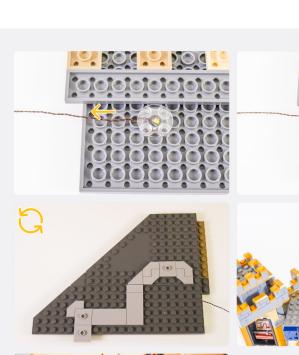




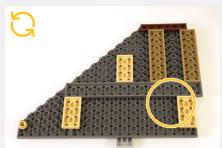
If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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





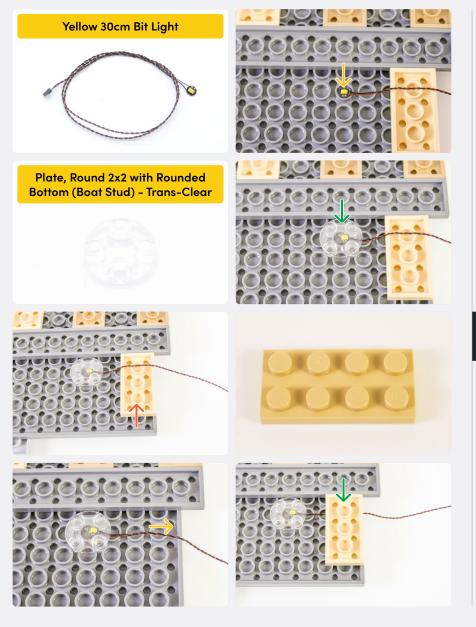


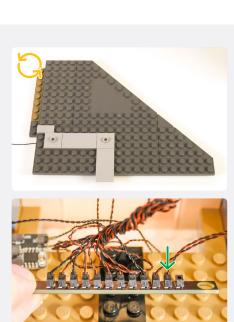




DISCONNECT





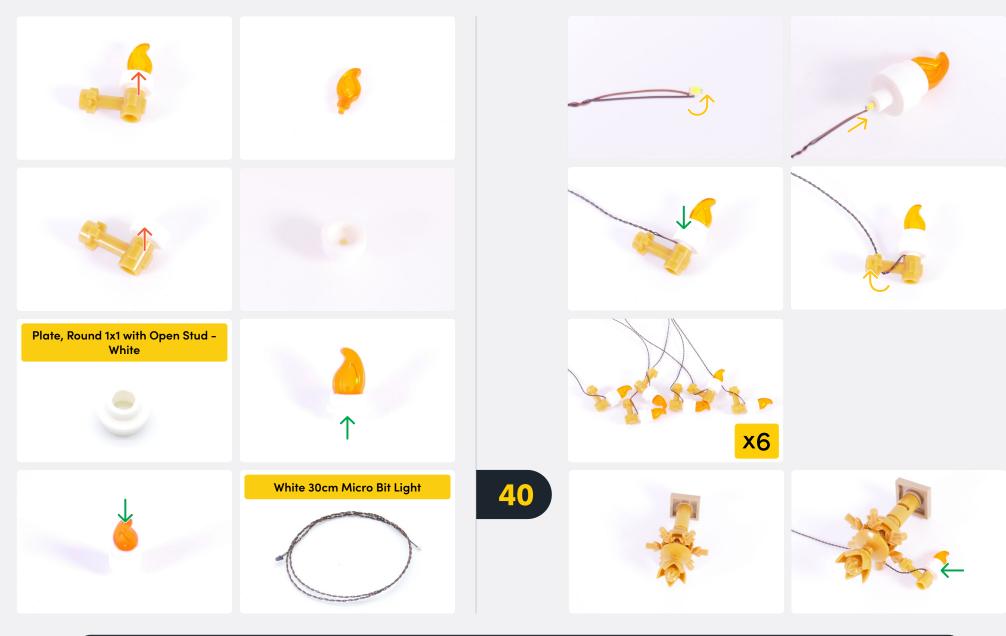














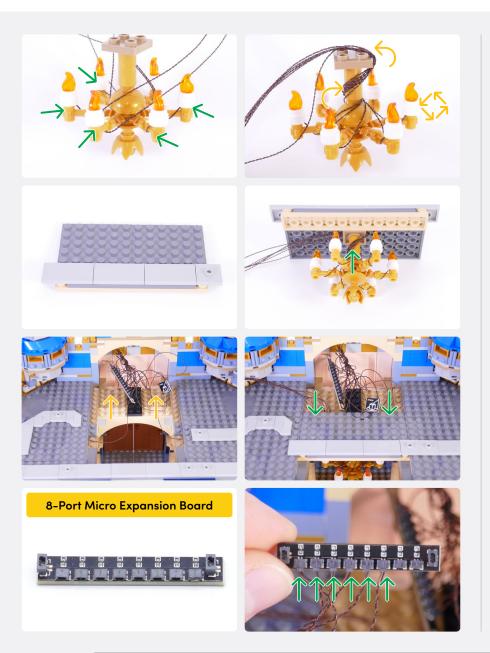




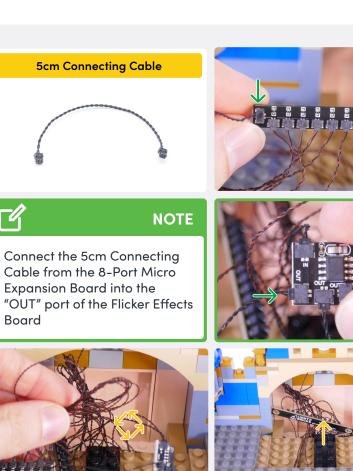




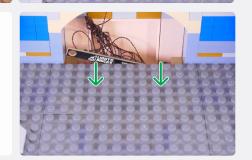












BEND / PIVOT

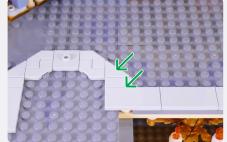




















separately)





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.

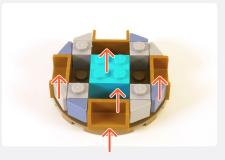












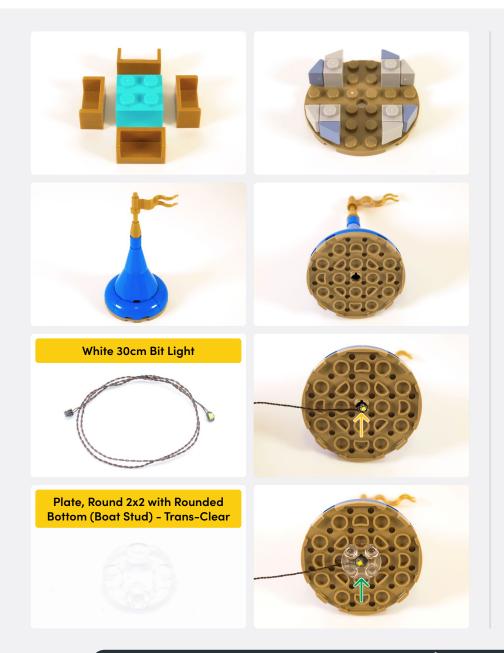


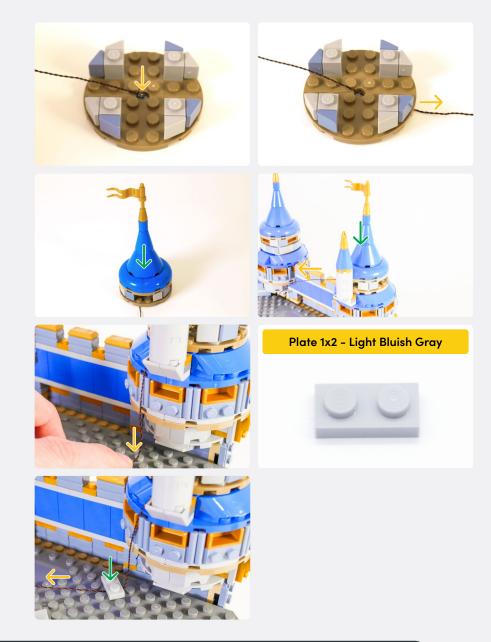










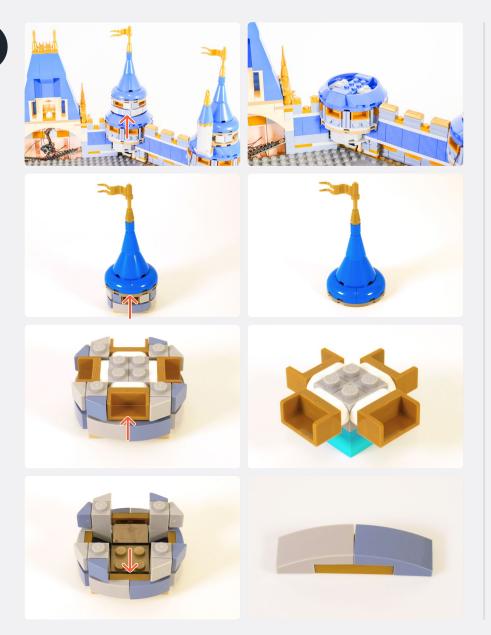


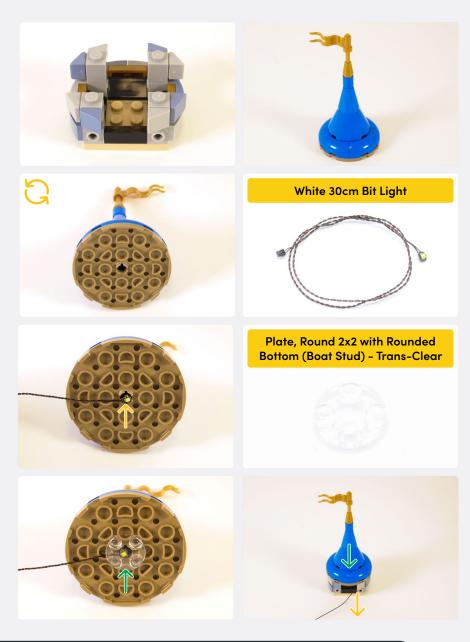












INSTRUCTIONS

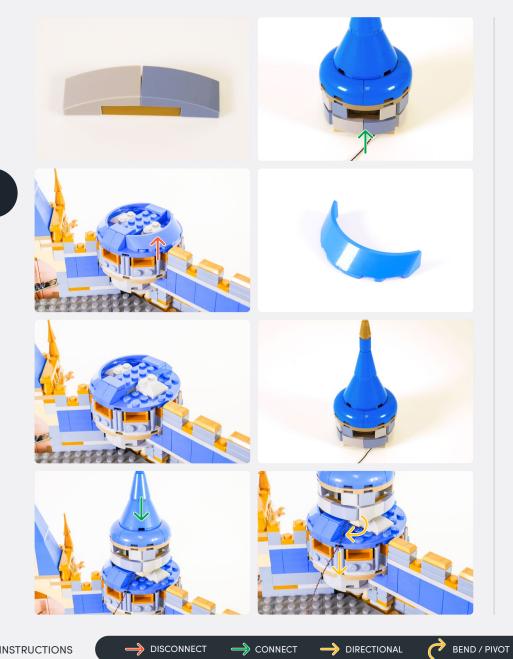












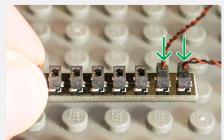
→ CONNECT

→ DIRECTIONAL









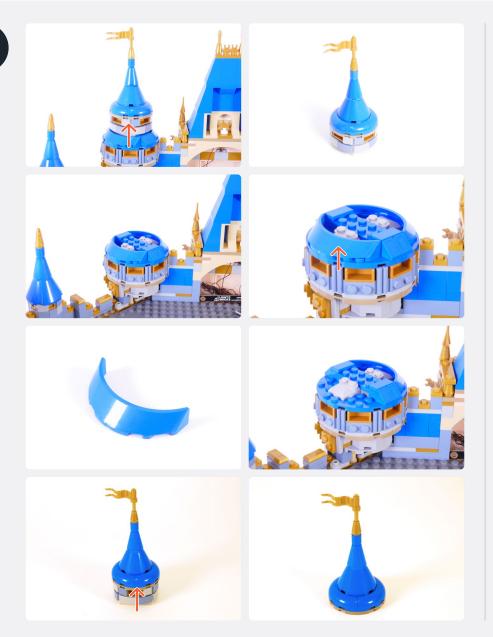


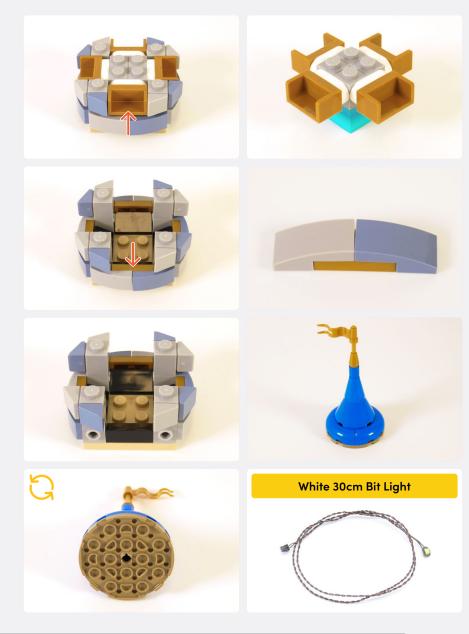
8-Port Expansion Board



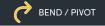
→ DISCONNECT









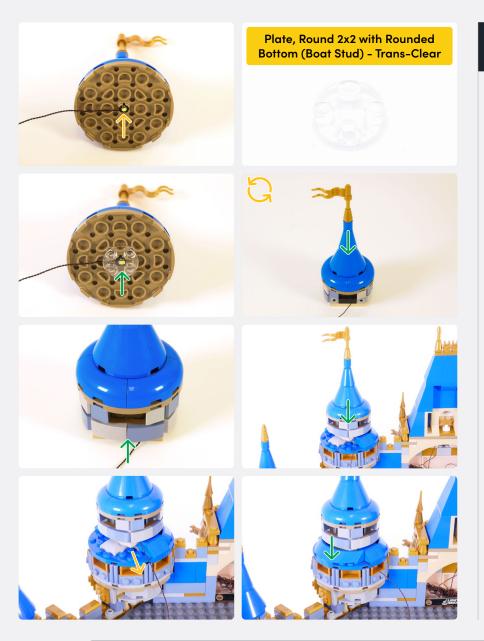




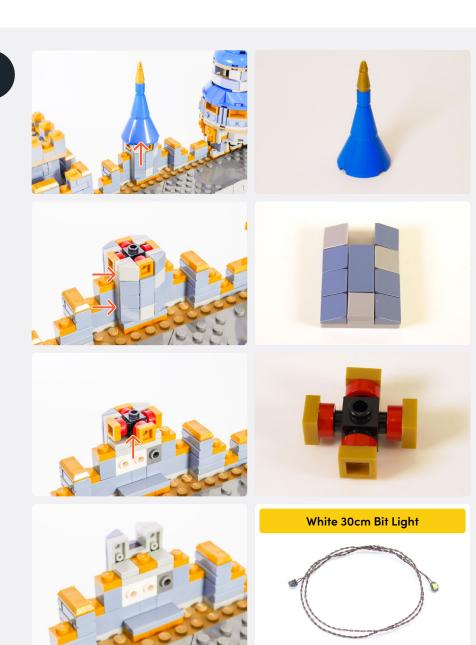








→ CONNECT



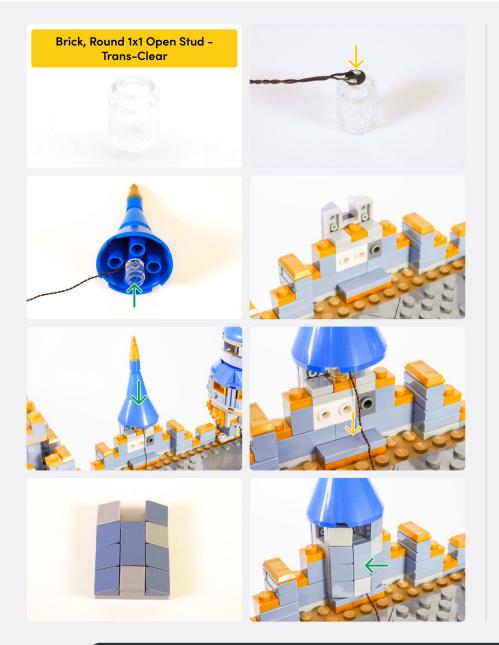
→ DIRECTIONAL

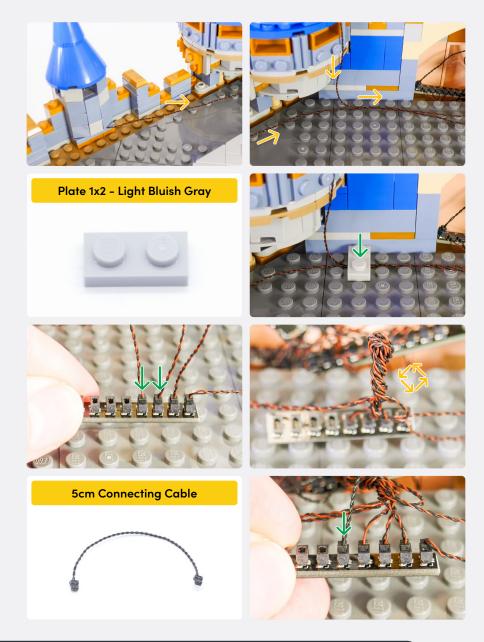




→ DISCONNECT











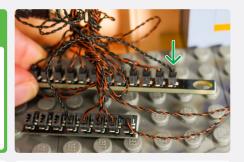






NOTE

Connect the other end of the 5cm Connecting Cable into the 12-Port Expansion Board.



Plate, Modified 1x2 with Bar Handle on Side Closed Ends - Black



Tile, Modified 1x1 with Open O Clip - Black



Plate 1x6 - Black







RGB Strip Light 2.0





RGB 15cm Connecting Cable







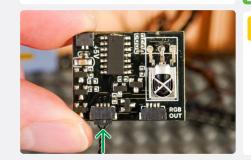
RGBIR Control Board





NOTE

Connect the RGB 15cm Connecting Cable to the "OUT" port on the RGB IR Control Board.



RGB 15cm Connecting Cable



















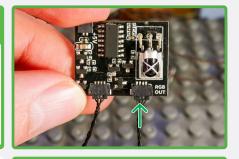








Connect the RGB 15cm Connecting Cable to the second "OUT" port on the RGB IR Control Board.







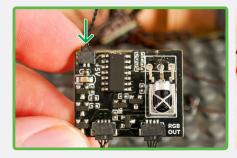


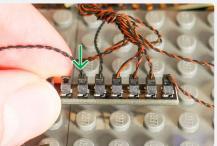
NOTE

Connect the 5cm Connecting Cable to the "+5V" port of the RGB IR Control Board, then to the 8-Port Expansion Board.



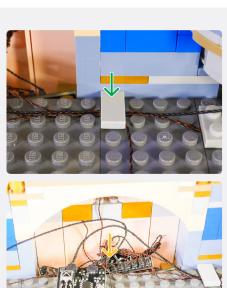






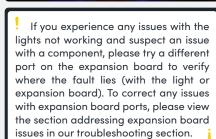








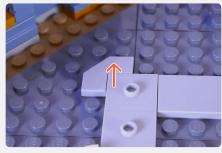










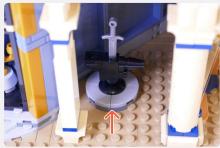




















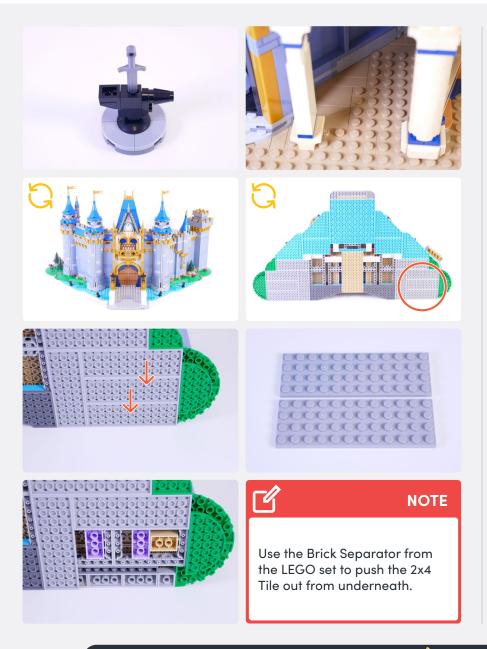












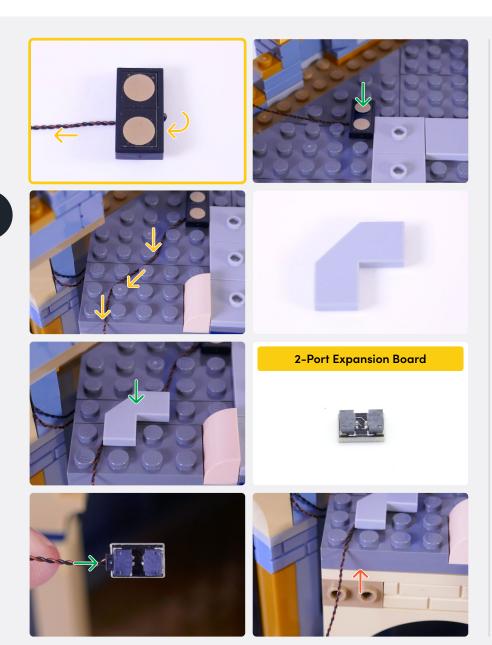


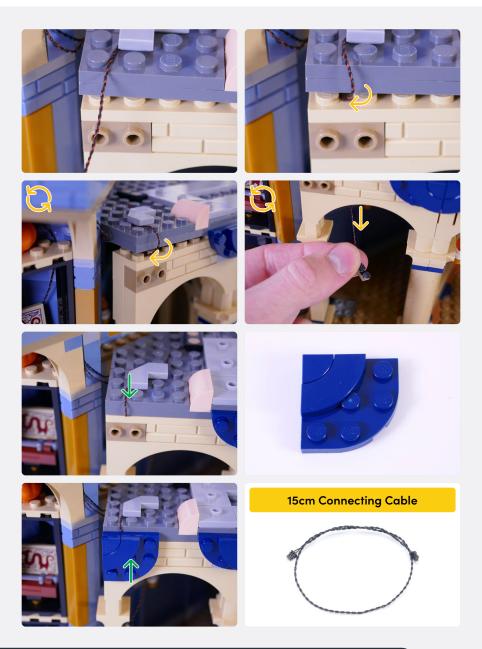








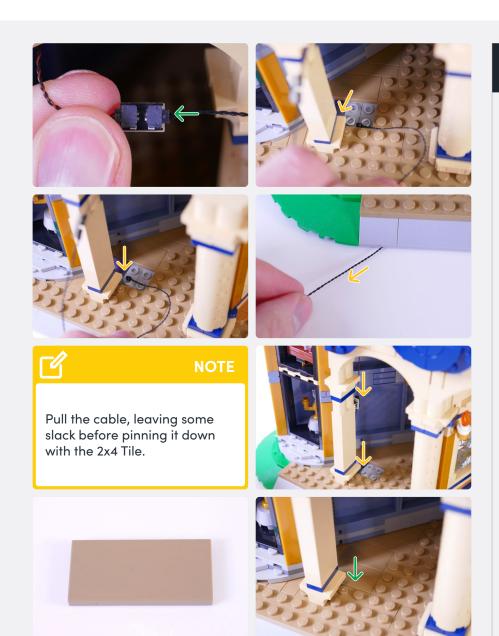


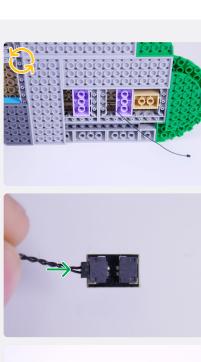


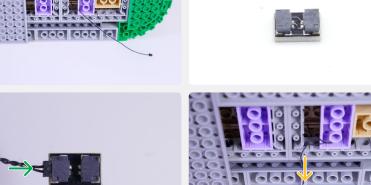
INSTRUCTIONS

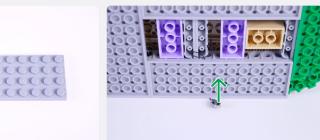
2-Port Expansion Board

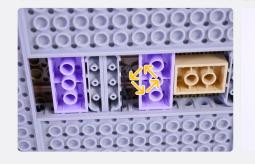












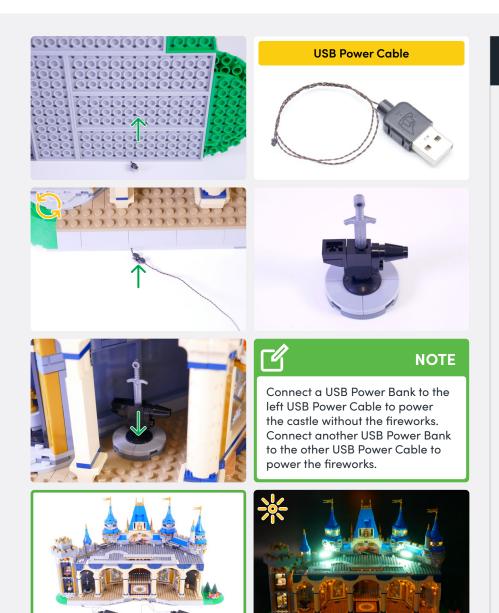


50























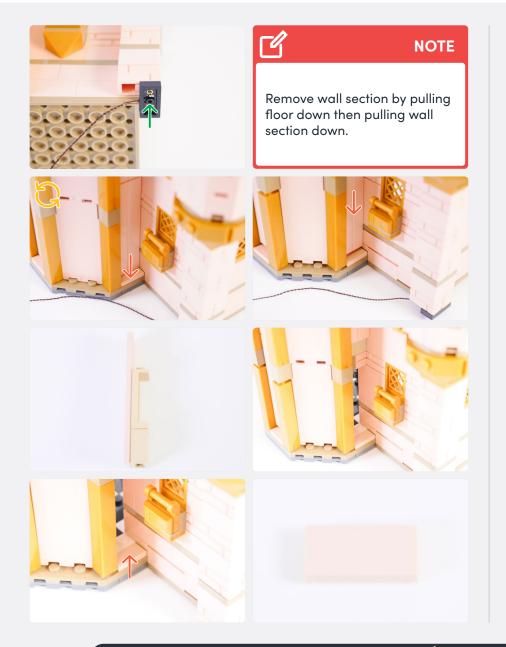


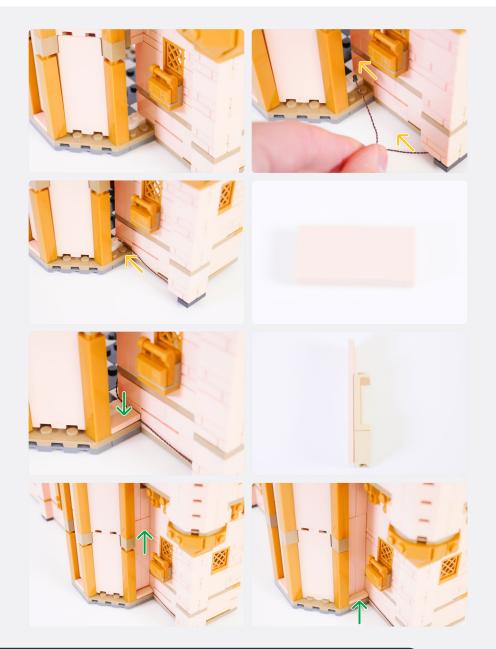


















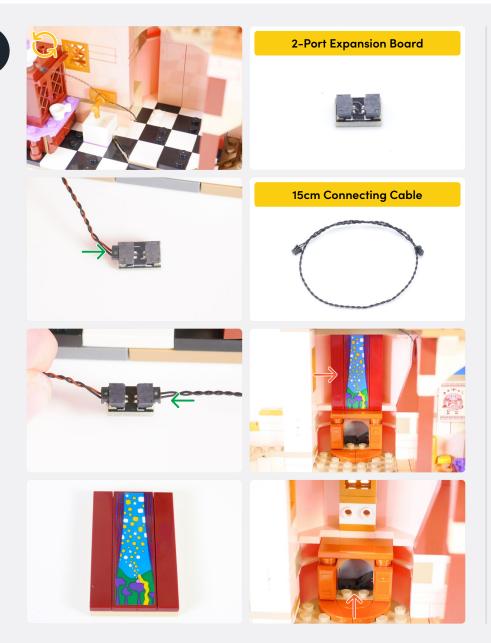






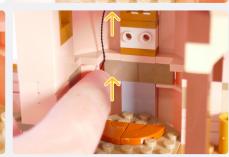










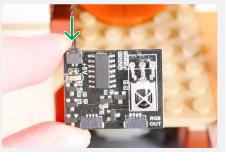






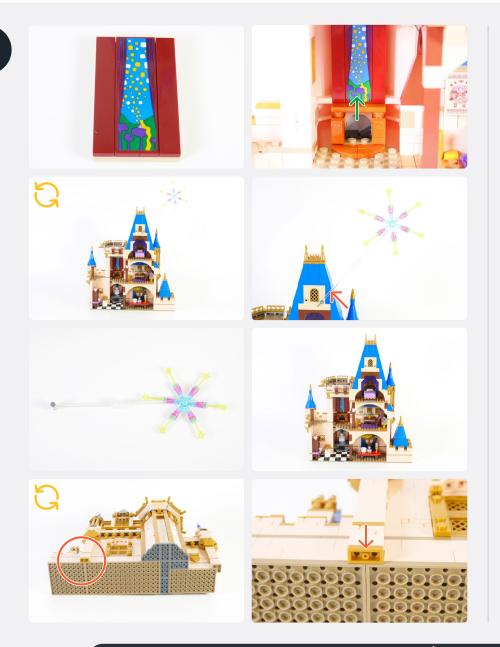


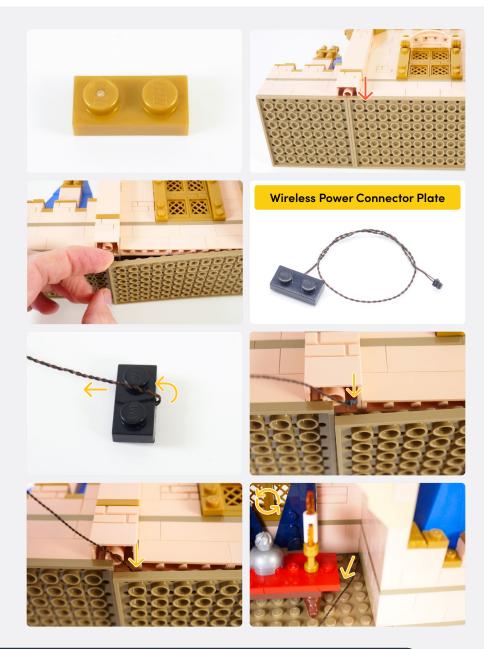
Connect the 15cm Connecting Cable to the "+5V" port of the RGB IR Control Board. This will be used in later for the Fireworks.











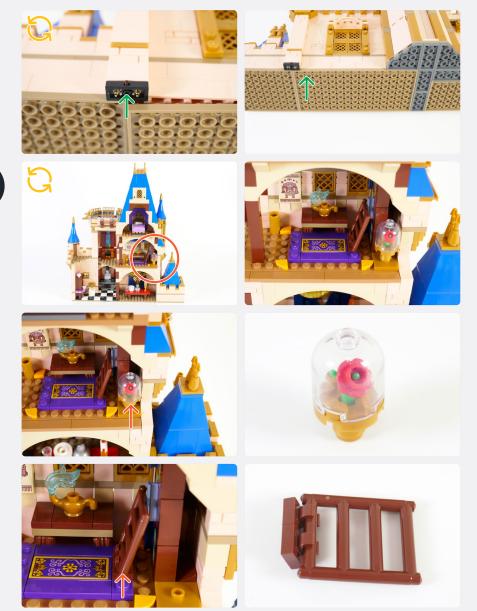






























Pull Wireless Connecting Cable from Step 53 up through the floor.



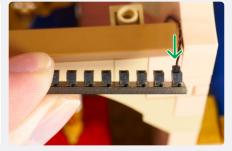
























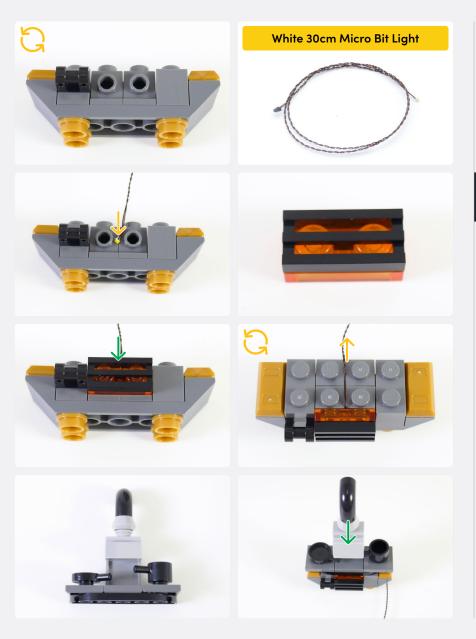




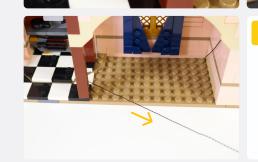














4-Port Micro Expansion Board

TURN / FLIP











INSTRUCTIONS











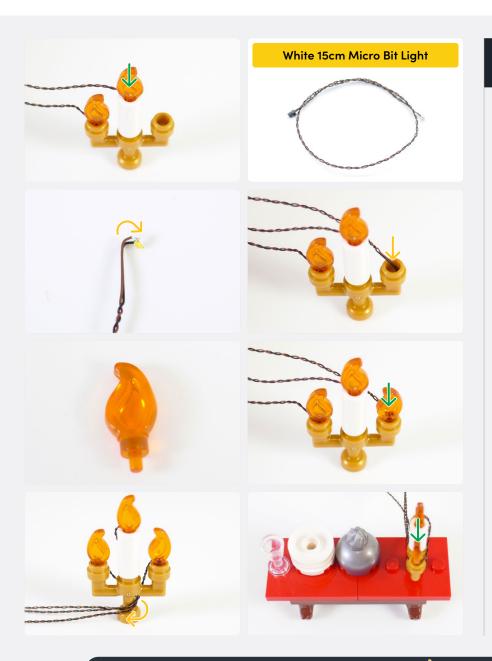


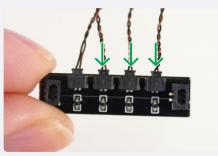




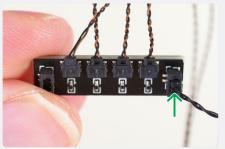
















Connect the 30cm Connecting Cable to any "OUT" port on the Flicker Effects Board then pull only the effects board to the next floor.













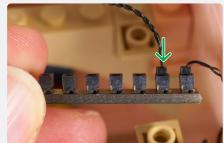
5cm Connecting Cable



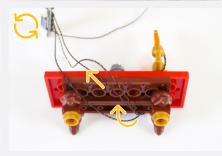
NOTE

Connect the 5cm Connecting Cable to the "IN" port of the Flicker Effects Board then to the 8-Port Expansion Board.





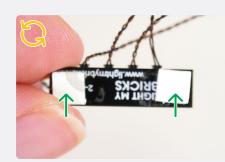


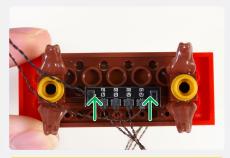














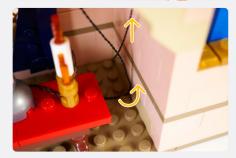


NOTE

Exclude the Connecting Cable when twisting the cables together.

















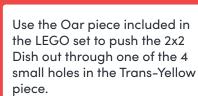


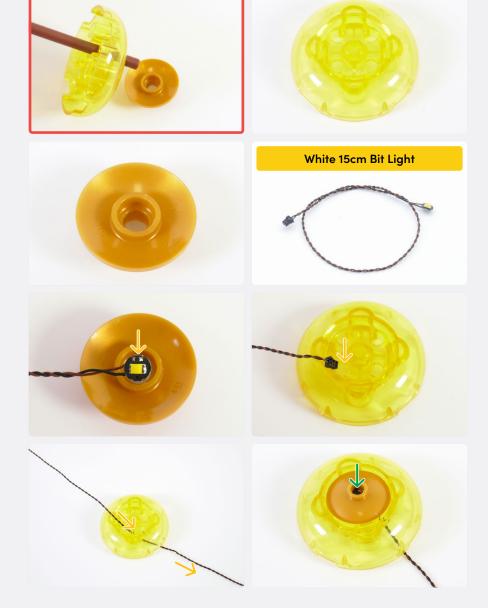












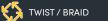




NOTE







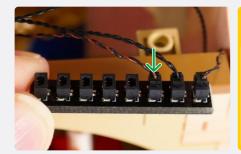




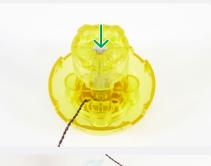












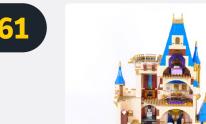




Place the floor piece in place ensuring the 8-Port Expansion Board and Flicker Effects

Board are pulled through.





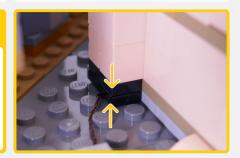


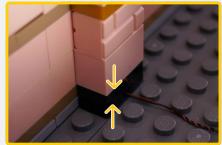




NOTE

When reconnecting the sections, ensure the Wireless Power Connectors are aligned, touching and orientated in the same direction.











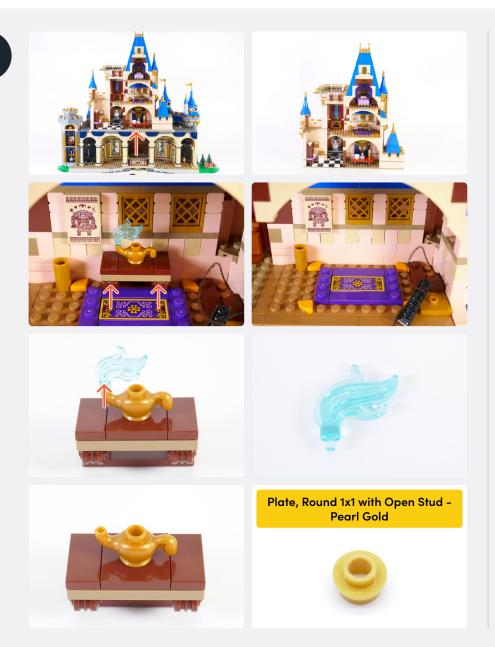
NOTE

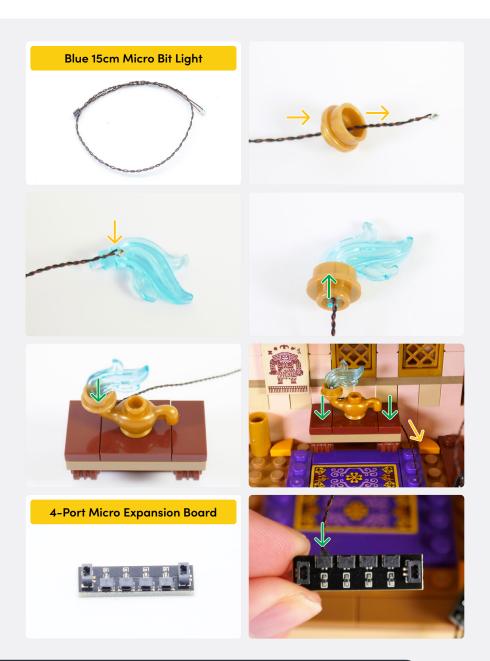




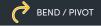








INSTRUCTIONS



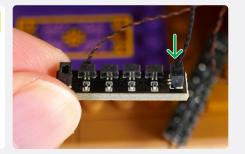






5cm Connecting Cable



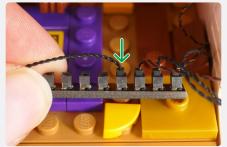


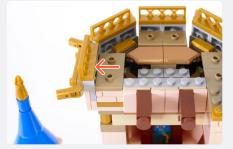


63

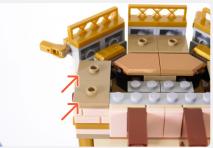
NOTE

Connect the other end of the 5cm Connecting Cable to the 8-Port Expansion Board.

















































Connect the other end of the 30cm Connecting Cable to the 8-Port Expansion Board.











NOTE

Thread the 30cm Connecting Cable from the previous Step along the roof next to the White 15cm Bit Light.

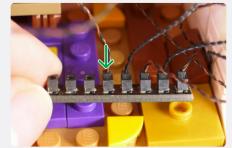


Plate, Round 2x2 with Rounded Bottom (Boat Stud) - Trans-Clear



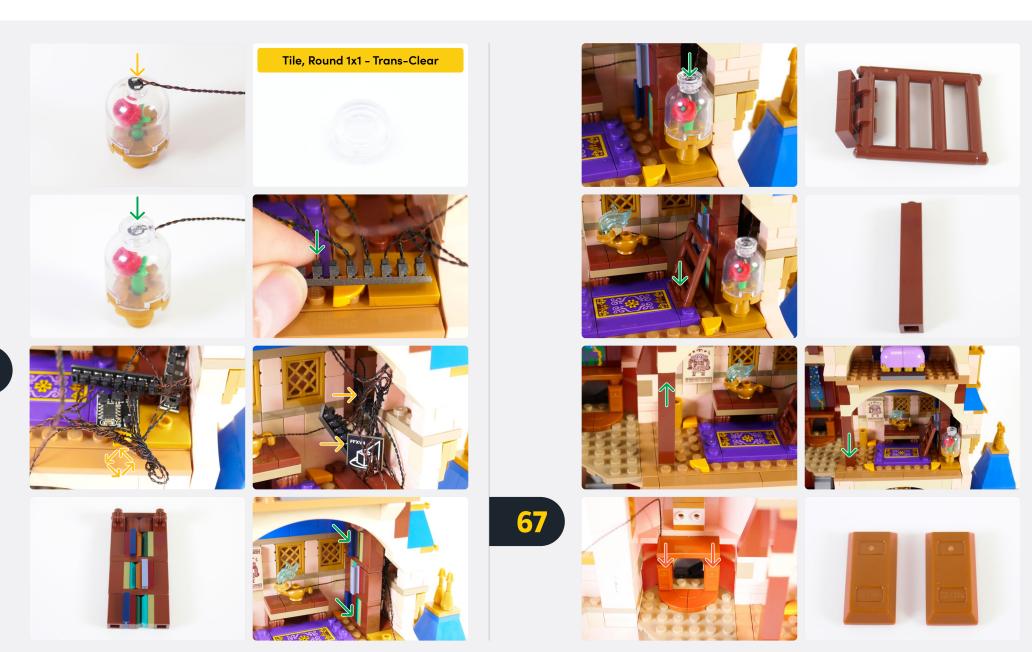










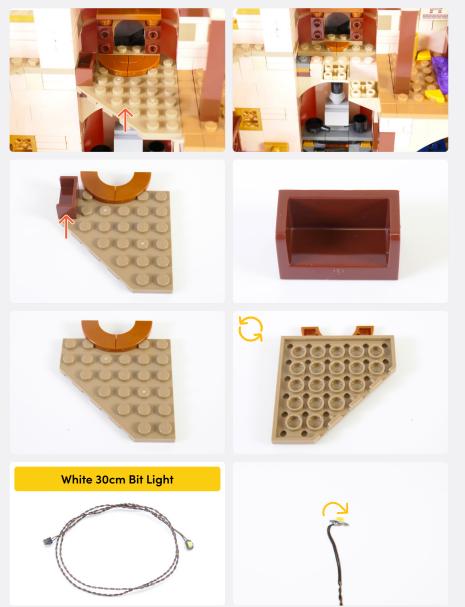


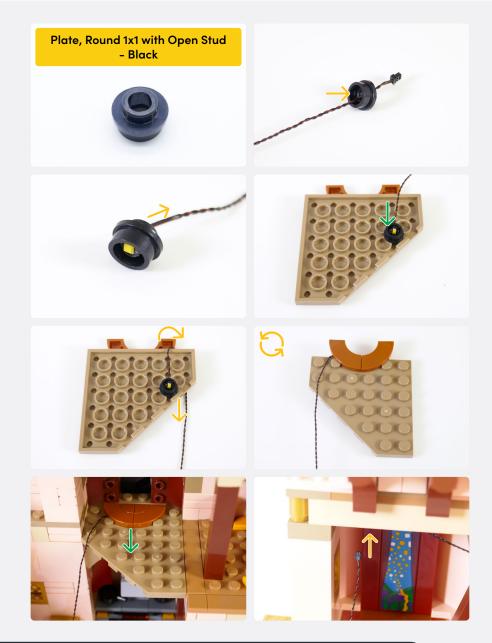










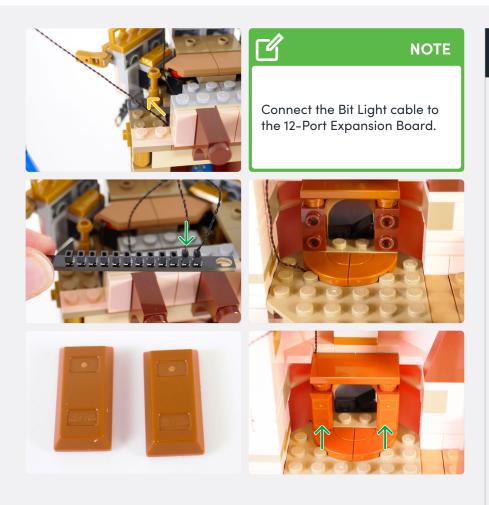




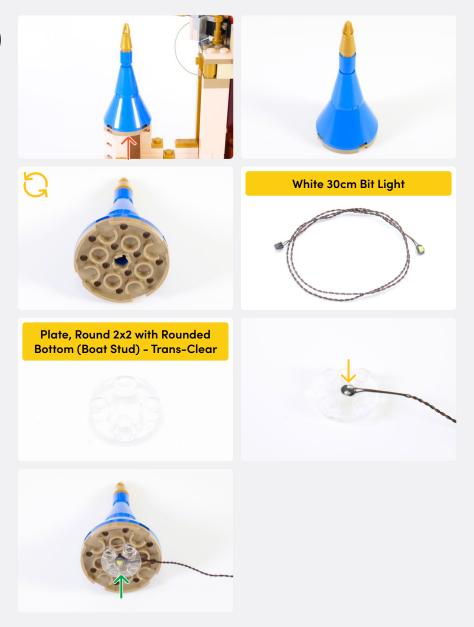














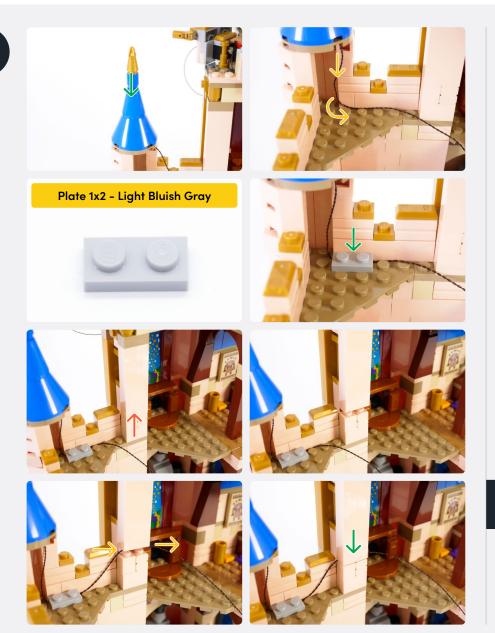


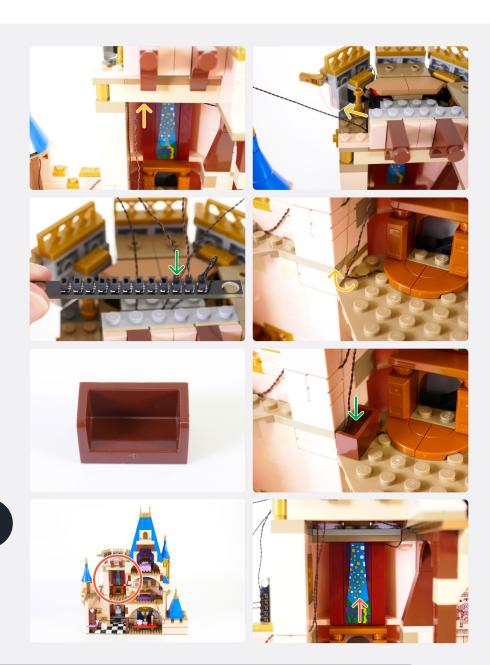






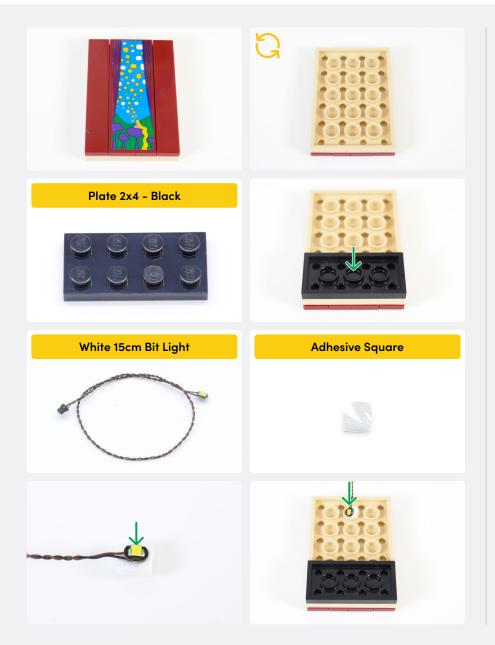


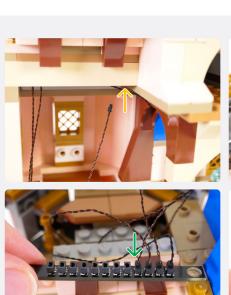










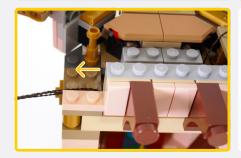








Pull all the cables connected to the 12-Port Expansion Board firmly before using a Round Plate 1x1 to secure them in position.



Plate, Round 1x1 with Open Stud - Black











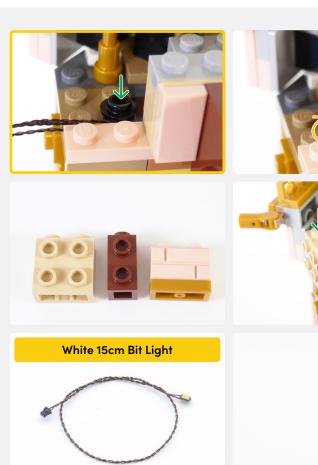




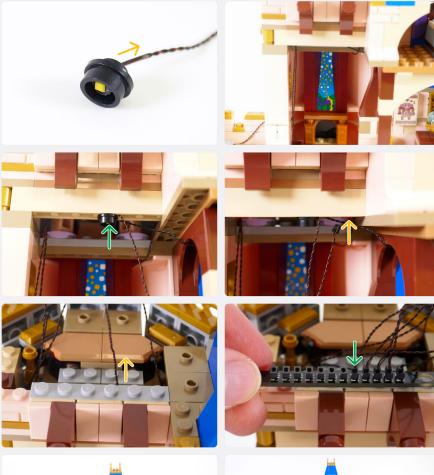


















Plate, Round 1x1 with Open Stud - Black











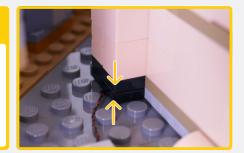


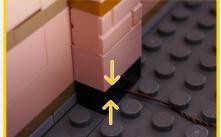






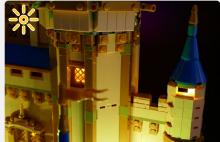
When reconnecting the sections, ensure the Wireless Power Connectors are aligned, touching and orientated in the same direction.













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.







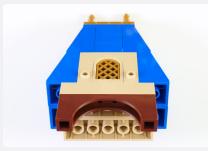
















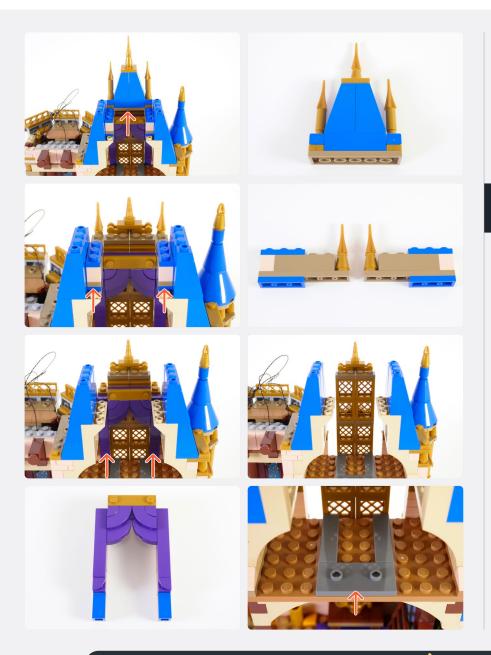


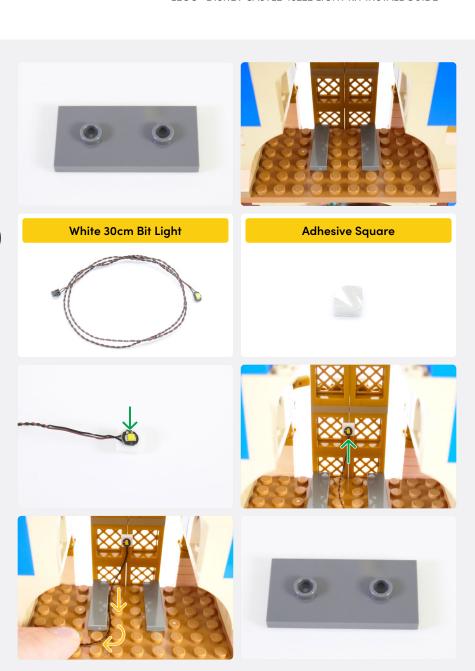










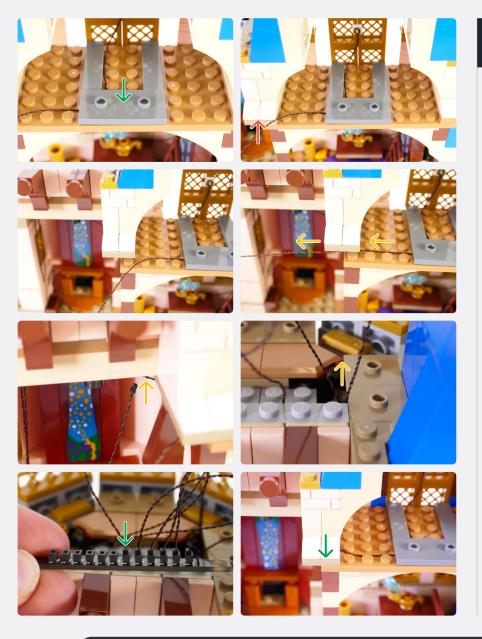


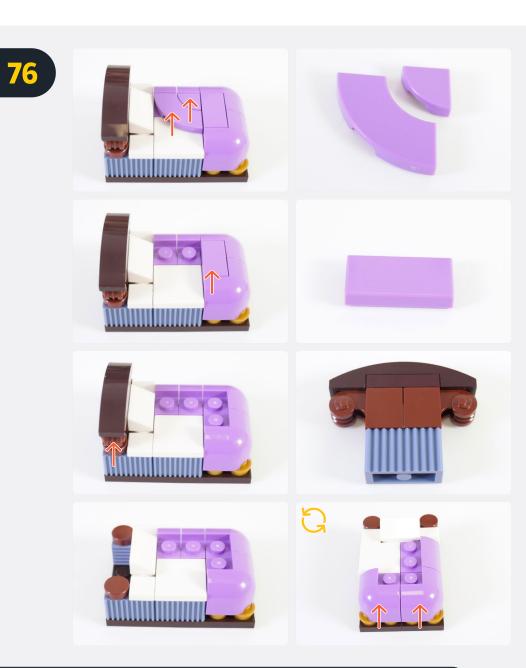




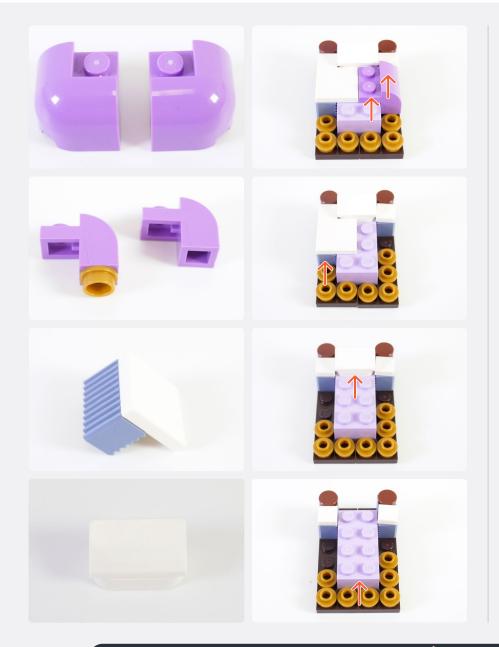


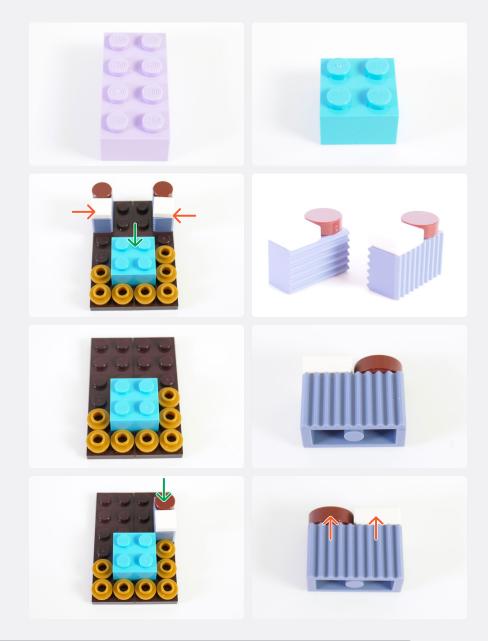


















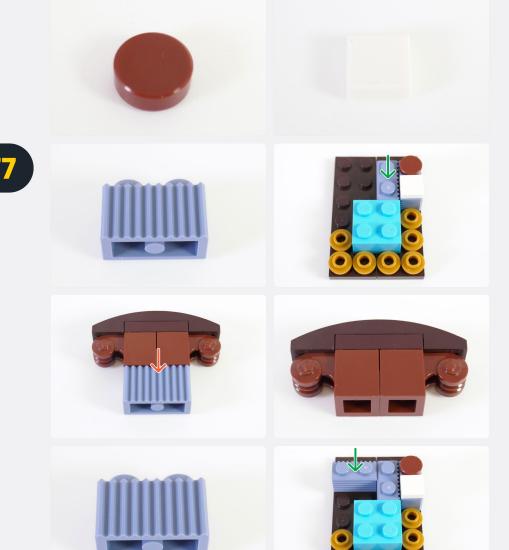


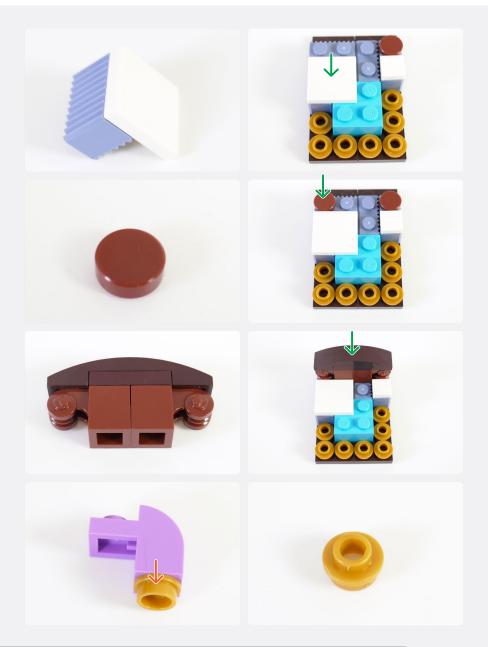










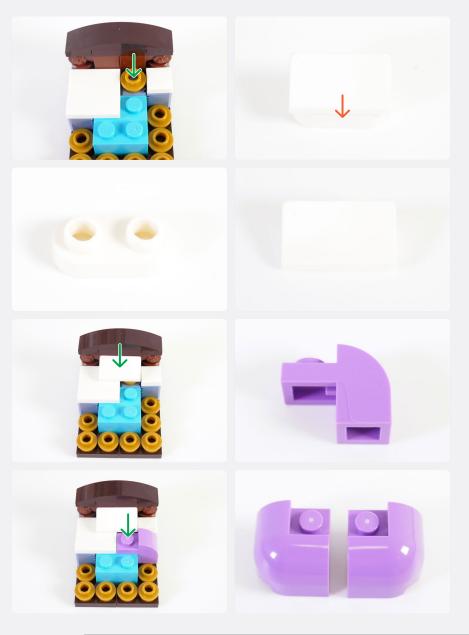


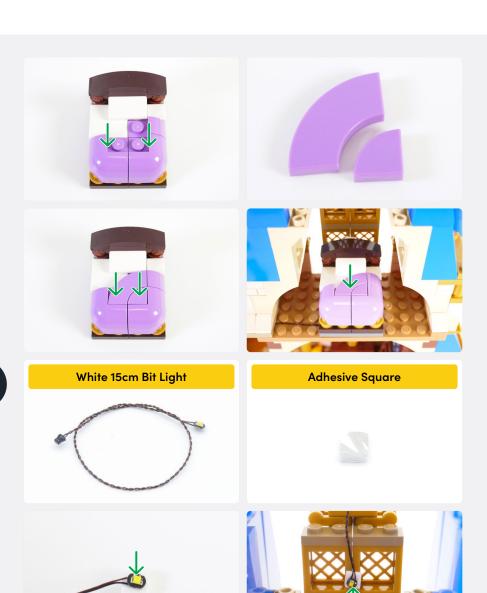














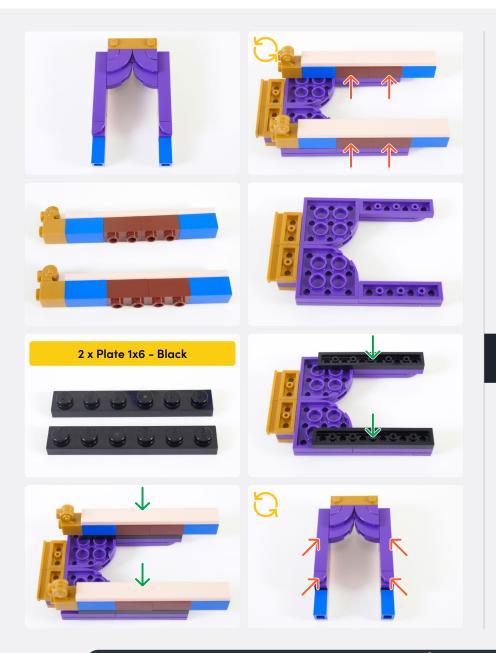


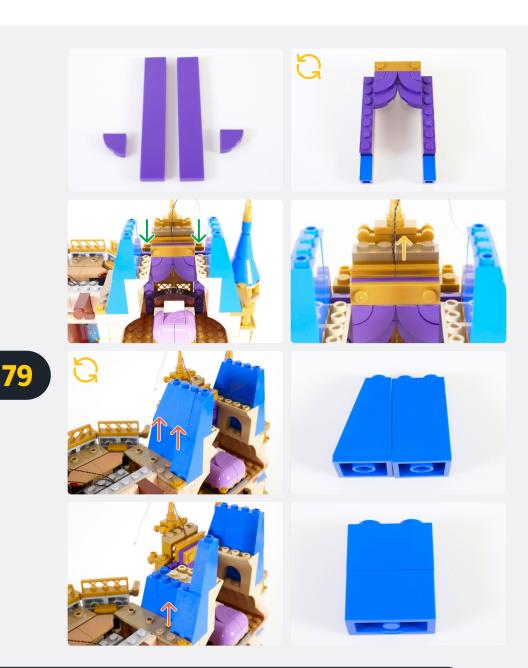




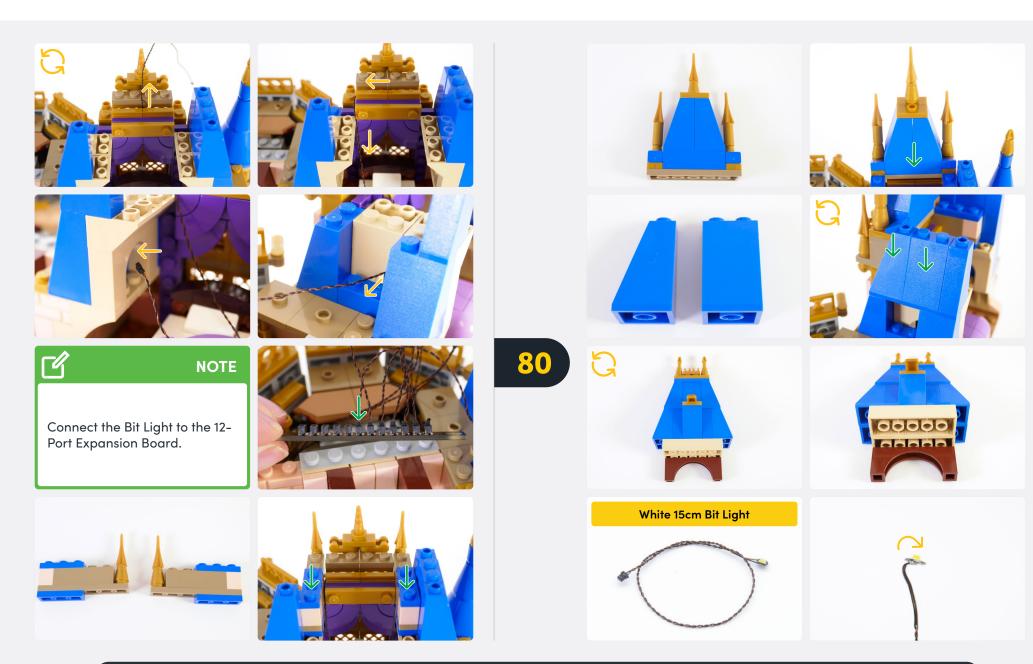










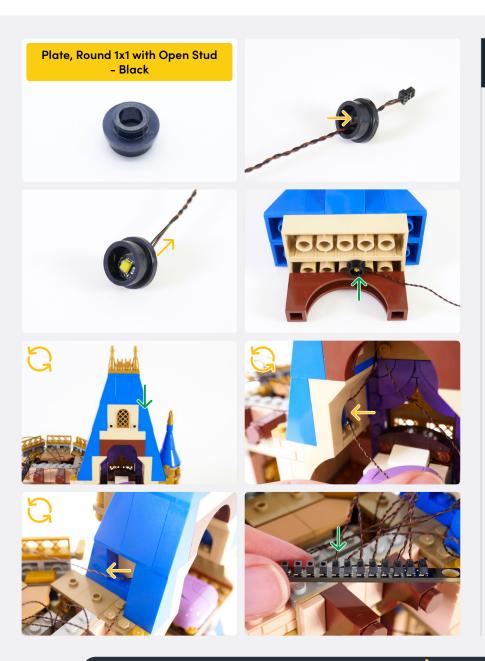










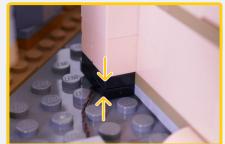


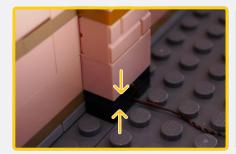






When reconnecting the sections, ensure the Wireless Power Connectors are aligned, touching and orientated in the same direction.







NOTE

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















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.

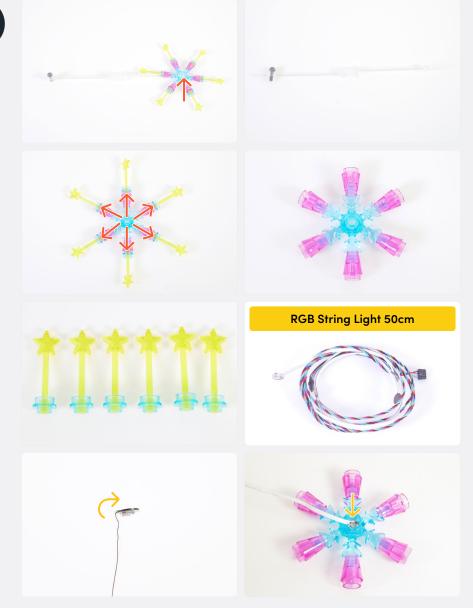




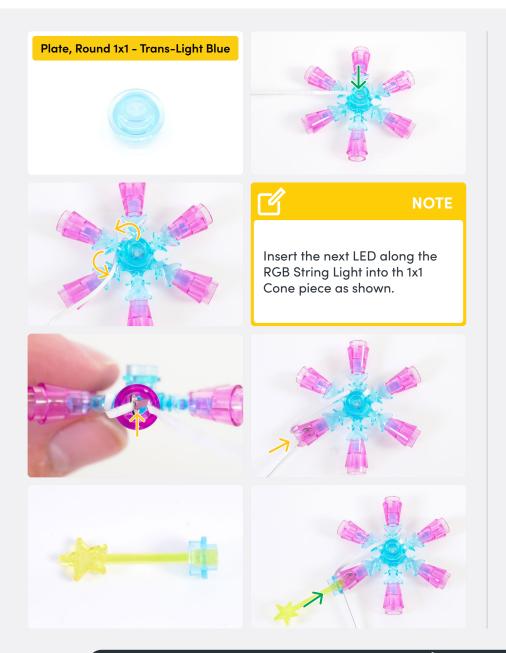


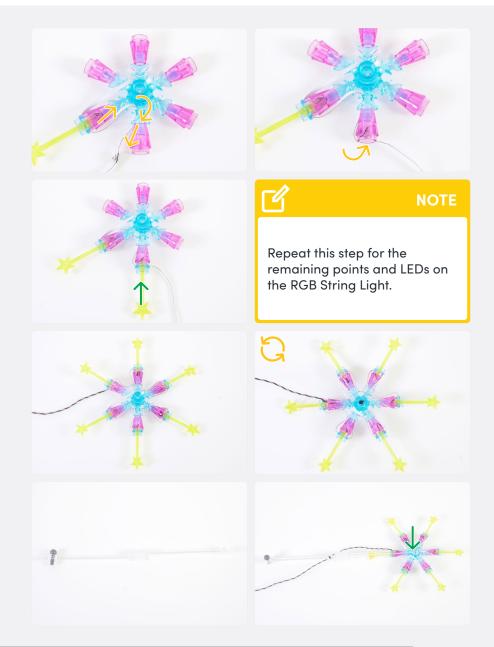
























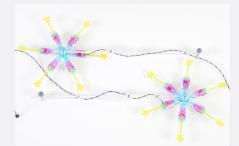








Repeat the process for the other firework.





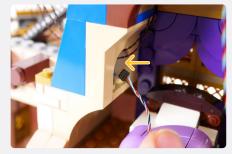














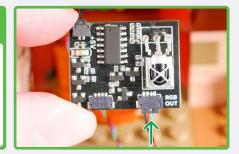






NOT<u>E</u>

Connect th RGB String Light to an "OUT" port on the RGB IR Control Board from Step 52.

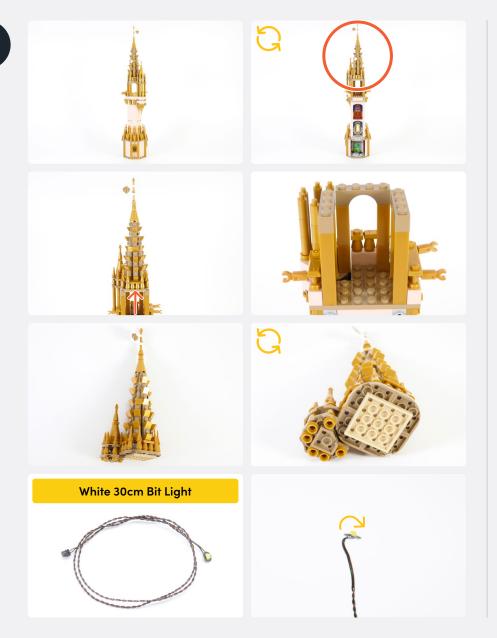


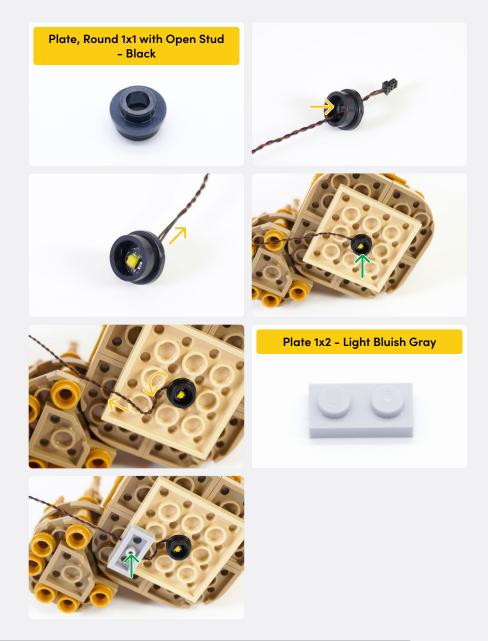








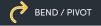












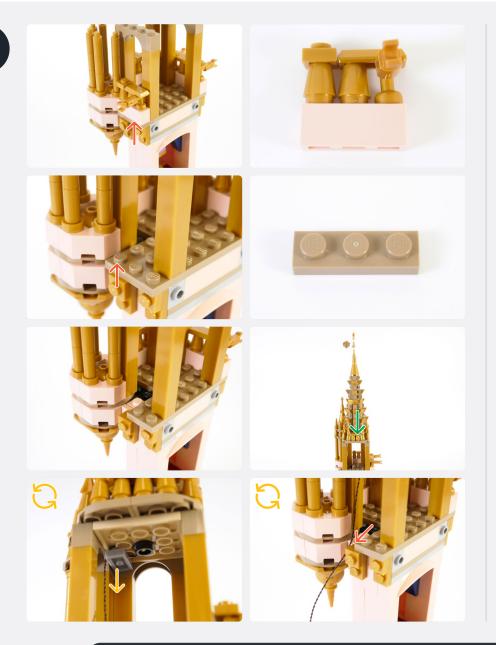


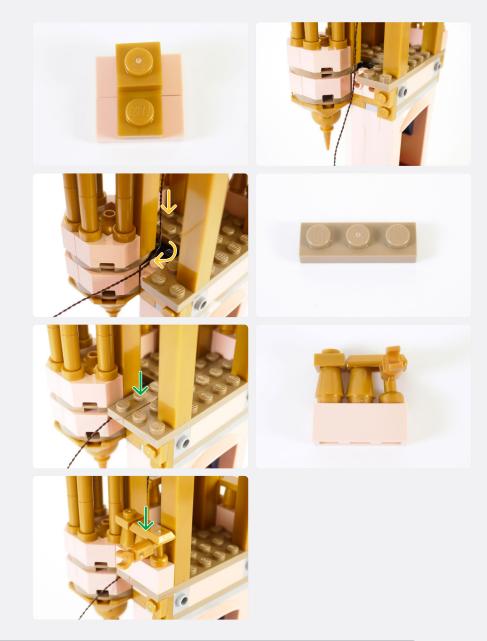


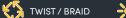








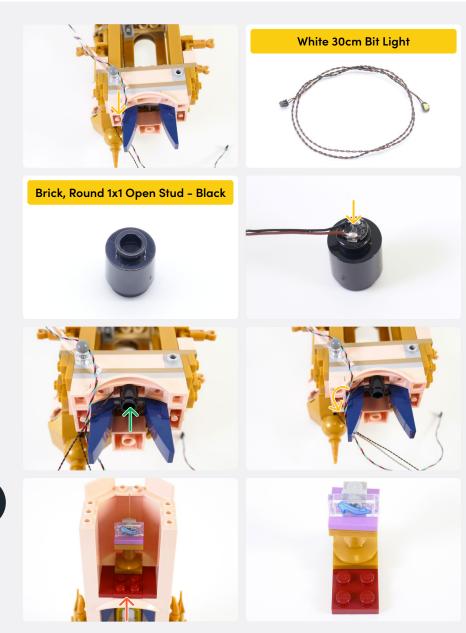












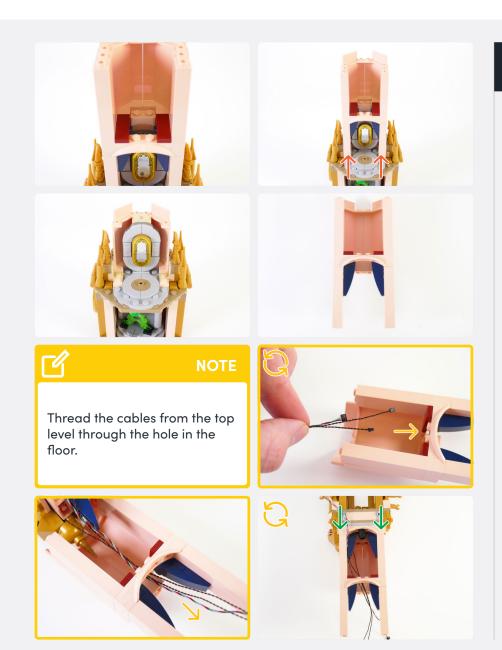


BEND / PIVOT









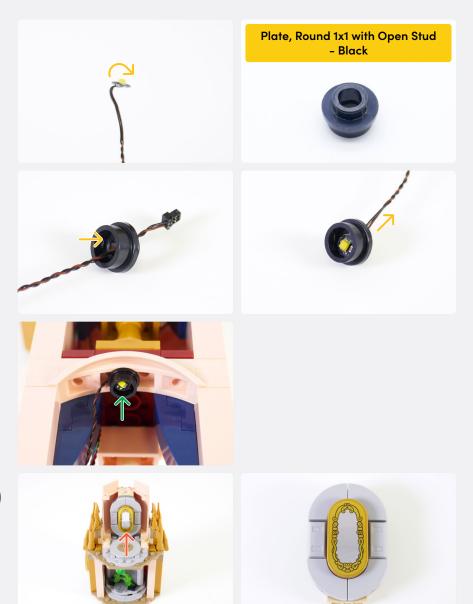


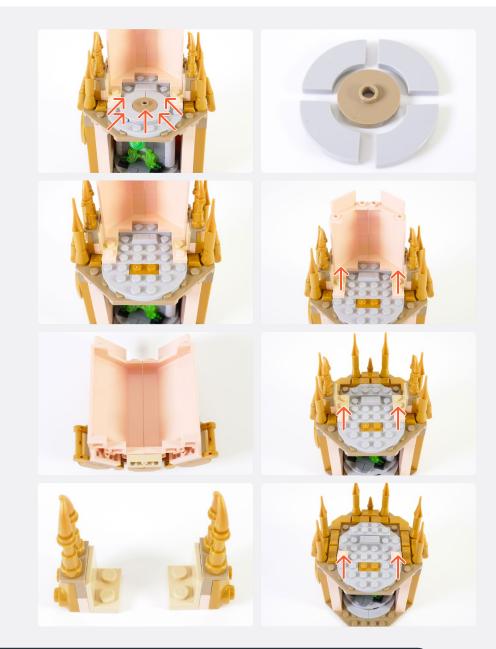






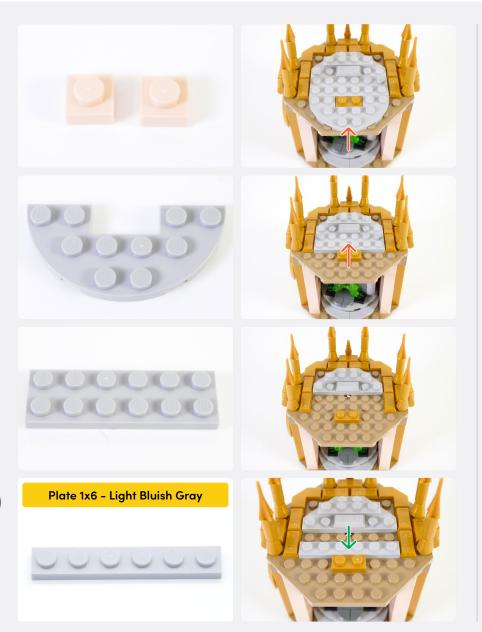


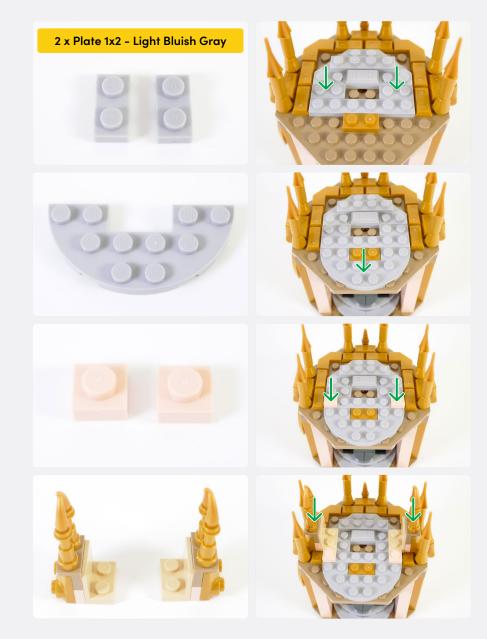




INSTRUCTIONS













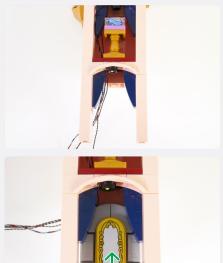






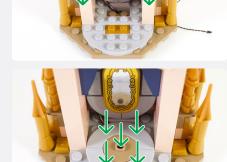




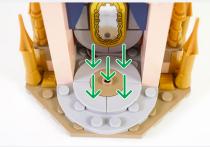












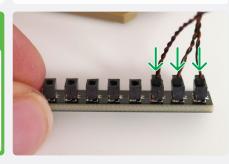


8-Port Expansion Board



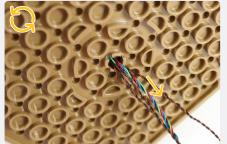










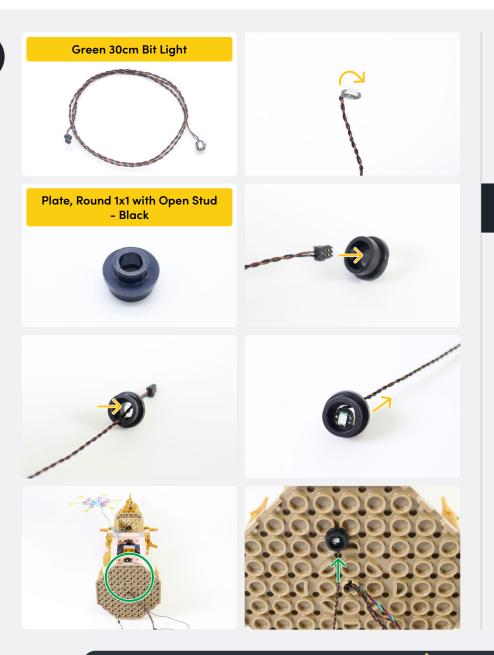


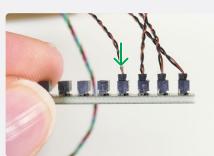
TURN / FLIP



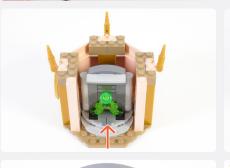
NOTE















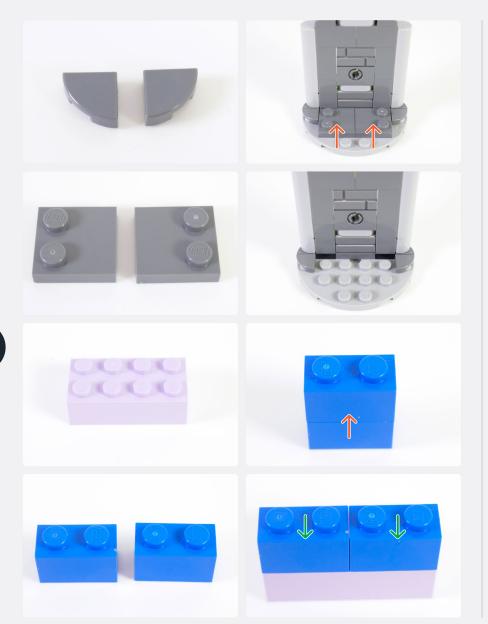


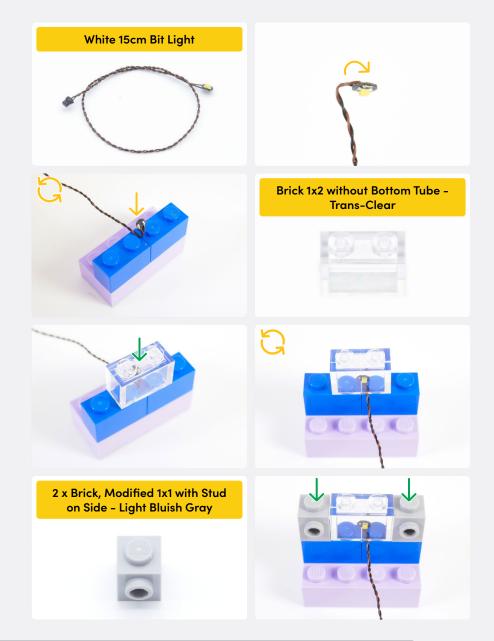








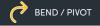




INSTRUCTIONS







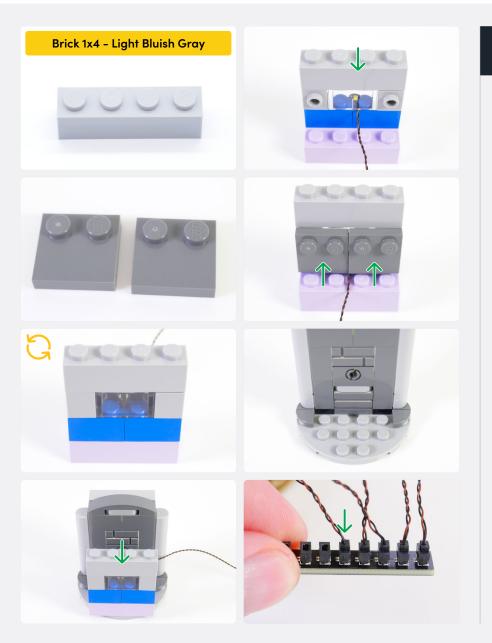




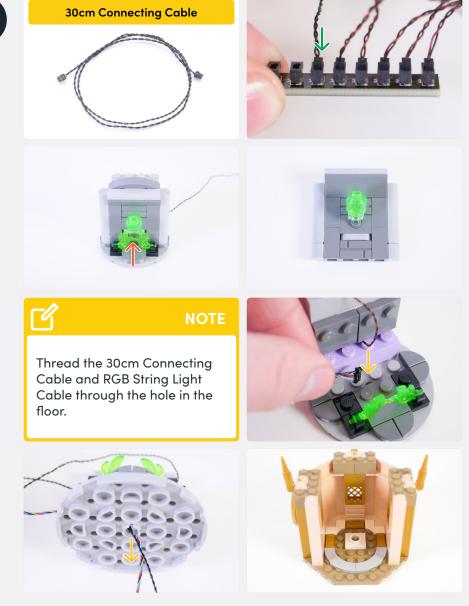












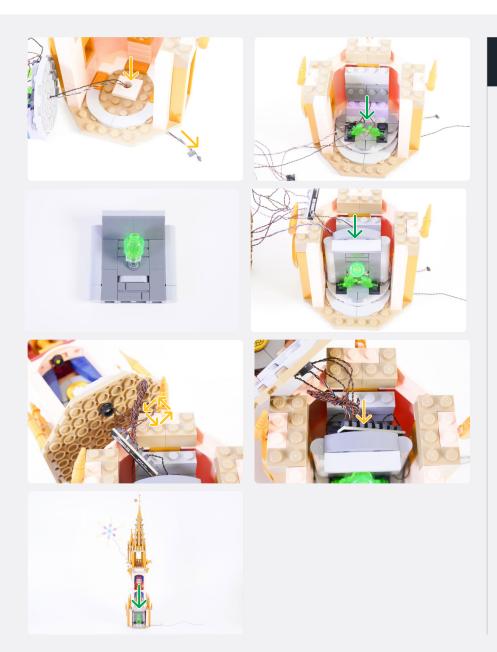








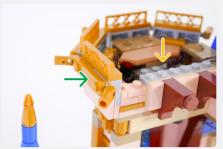














Use the box the kit came in to prop up the tower when connecting the cables.







NOTE

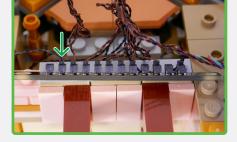
Connect the 30cm Connecting Cable to the 12-Port Expansion Board from Step 79.





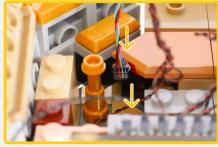








Thread the RGB String Light Cable through the hole in the roof as shown.

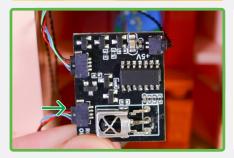






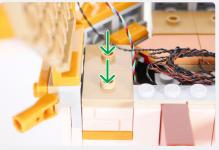
NOTE

Connect the RGB String Light to the second "OUT" port on the RGB IR Control Board.











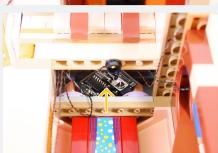






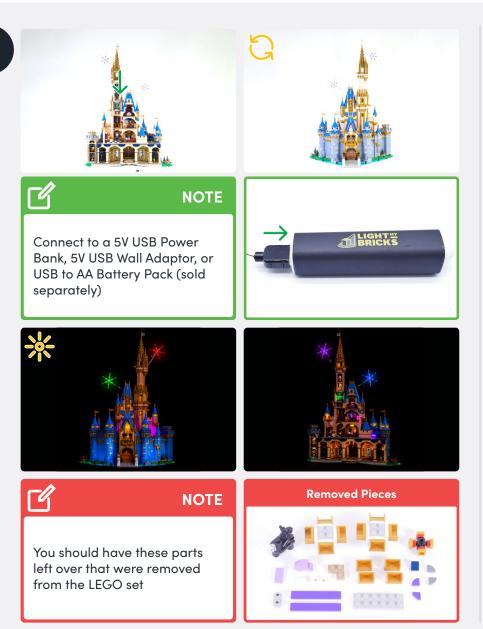
NOTE

Insert the RGB IR Control Board into the roof as shown, ensuring the IR receiver is in sight.









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.



FINAL PRODUCT

This finally completes installation of the Light My Bricks

LEGO® Disney Castle 43222 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!



lightmybricks.com