

LEGO® AVENGERS TOWER #76269 LIGHT KIT INSTALLATION GUIDE



Light My Bricks



Hi There!

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

Avengers Tower 76269 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



- 9x White Strip Light
- 2x Cool White Headlight 30cm
- 1x Rotating Light Ring 8x8 Orange
- 1x Flashing Red 30cm Bit Light
- 3x Light Blue 30cm Bit Light
- 7x Light Blue 30cm Large Bit Light
- 6x Yellow 30cm Bit Light *
- 1x Black Lamp Post with Bit Light Installed

Connecting Cables



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

USB Power Cable



1x USB Power Cable (Power Source not Included)

Mixed Components 1



- 1 x 2-Port Expansion Board
- 2 x 6-Port Expansion Board
- 1 x 8-Port Expansion Board
- 1 x 12-Port Expansion Board
- 2 x Adhesive Square

Mixed Components 2



- 10x Plate, Round 1x1 with Open Stud Black
- 1x Plate, Round 1x1 with Open Stud White
- 1x Plate, Round 1x1 Trans Orange
- 1x Plate, Round 1x1 Trans Red

Mixed Components 3



- 1x Plate, Round 2x2 with Rounded Bottom (Boat Stud) Trans– Clear
- 2x Cone 1x1 with Top Groove Trans-Black
- 2x Tile, Modified 1x1 with Open O Clip Black
- 6x Arm Skeleton, Bent with Clips (Horizontal Grip) Black

^{*} Indicates components which include spares





PACKAGE CONTENTS:

Mixed Components 4



2x Plate, 1x1 – Light Bluish Grey

2x Plate, 1x2 - Light Bluish Grey

4x Plate, Round 1x1 with Bar Handle - Black

2x Tile 1x2 - Light Bluish Grey

6 x Plate 1x1 - Trans Light Blue

2 x Tile 1x2 - Trans Light Blue

Mixed Components 5



6x Plate, Modified 1x2 with Bar Handle on End - Black

4x Plate, Modified 1x2 with Bar Handle on Side Closed Ends -

Black

2x Tile 1x6 - Light Bluish Grey

Mixed Components 6



1x Plate 1x6 - White

8x Plate 1x6 - Dark Bluish Grey

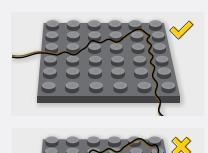
^{*} Indicates components which include spares



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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.



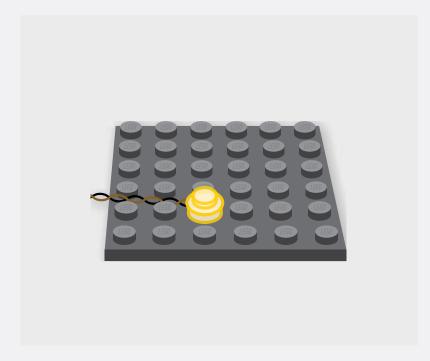
Connecting Micro Cable Connectors To Micro Expansion Board Ports

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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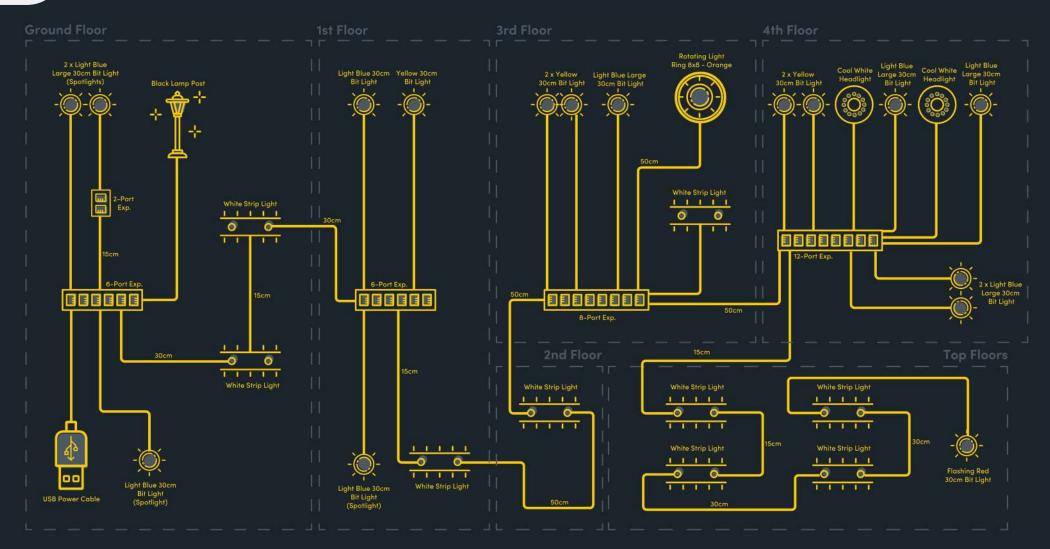
NOTE

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





BLUEPRINT



BLUEPRINT

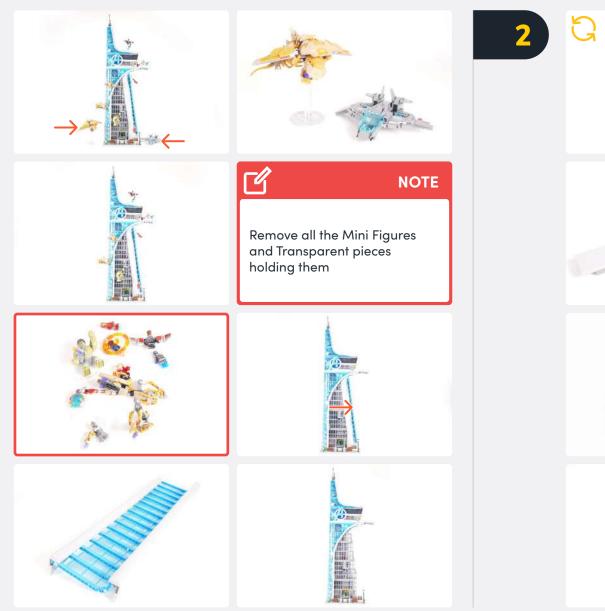


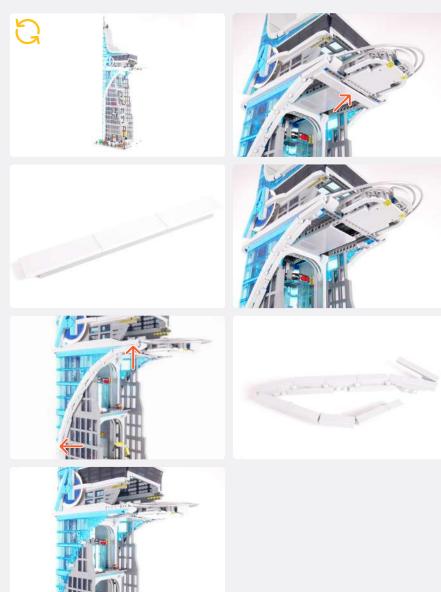


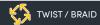
INSTRUCTIONS

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.















Use the LEGO Removal Tool to assist in disconnecting parts/ sections.

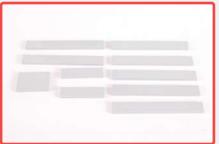




NOTE

Disconnect the tiles from the edges, starting from the 2x3 Tile until you reach the bottom.

























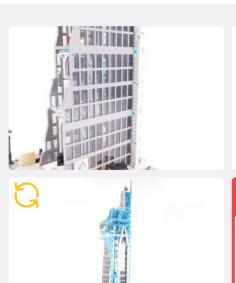
NOTE

Disconnect the tiles from the edges, starting from the 2x3 Tile until you reach the bottom.





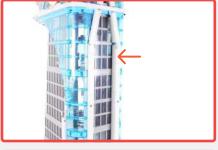








Disconnect the tiles from the edges, starting from the indicated position until you reach the bottom.















NOTE

Disconnect the tiles from the edges, starting from the indicated position until you reach the bottom.



































Use the LEGO Removal Tool to assist in disconnecting parts/ sections.





















Ensure the bottom of this removed section looks as shown





NOTE

Ensure the top of the tower looks as shown













NOTE

Use the LEGO Removal Tool to assist in disconnecting parts/ sections.

















BEND / PIVOT











Use the LEGO Removal Tool to pry away on the opposite side of the tower as well before removing the section





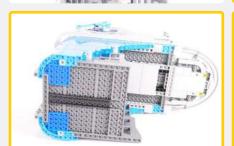






NOTE

Ensure the bottom of this removed section looks as shown





NOTE

Ensure the top of the tower looks as shown







































Ensure the bottom of this removed section looks as shown





NOTE

Ensure the top of the tower looks as shown



































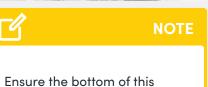












removed section looks as





NOTE

Ensure the top of the tower looks as shown



















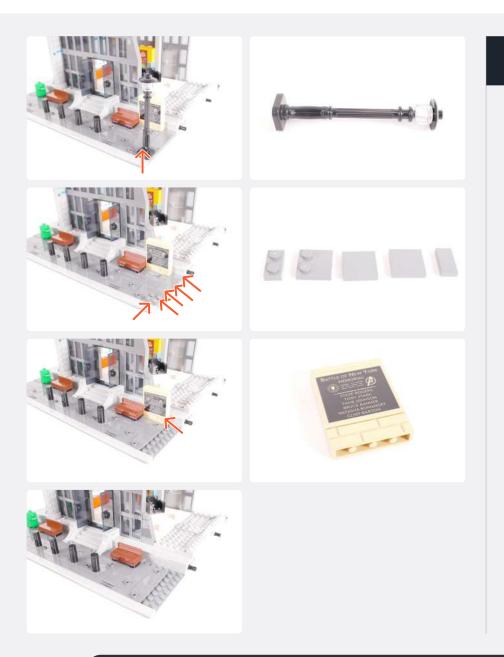


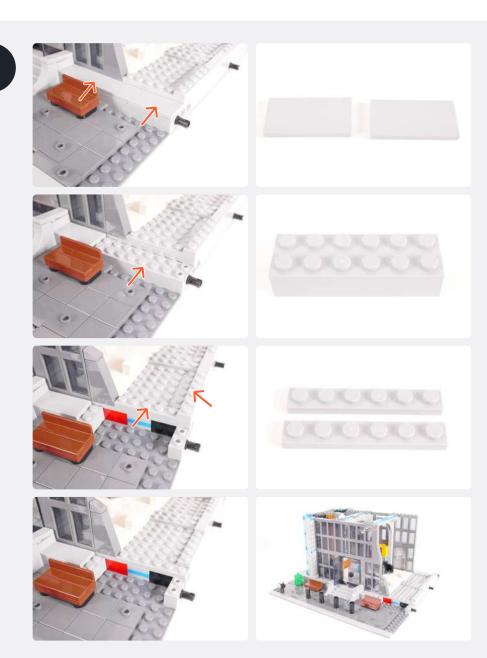




shown











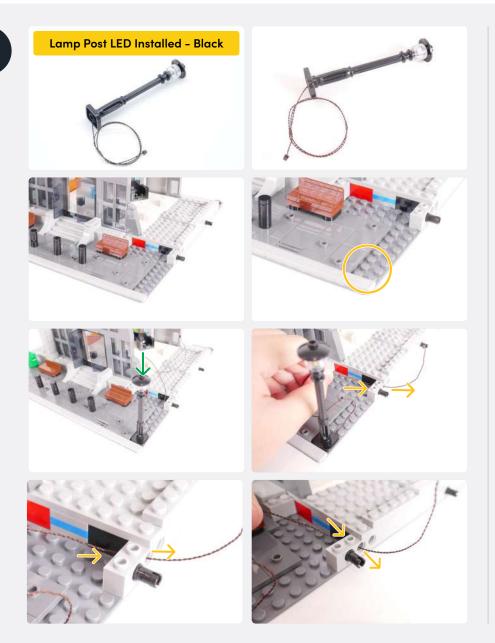


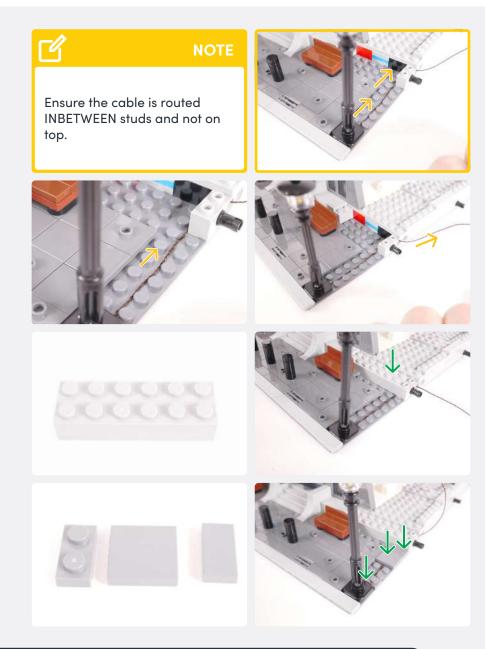






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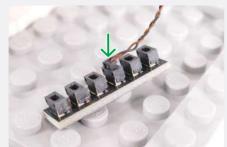




6-Port Expansion Board











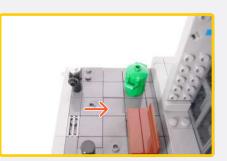


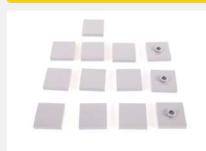




NOTE

Disconnect the tiles up to the indicated tile

















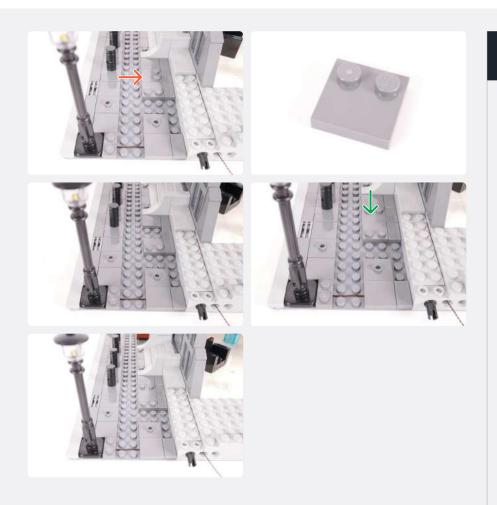


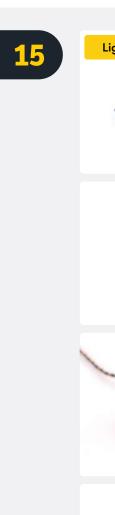


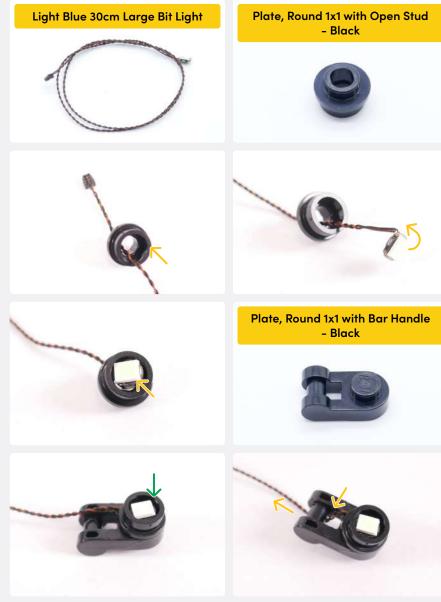


















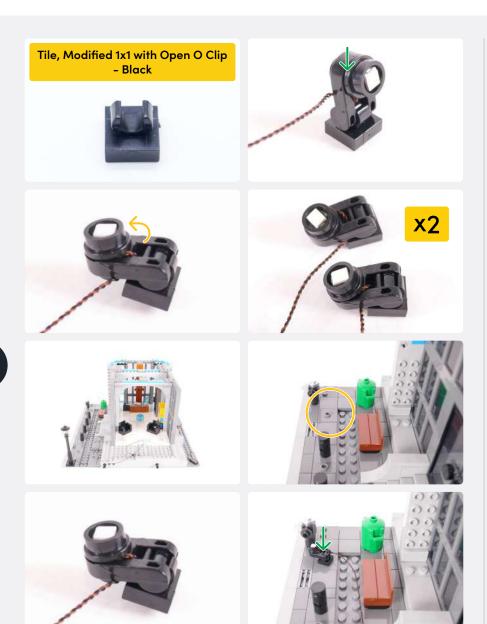








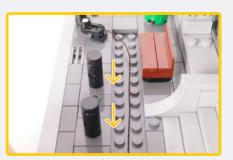




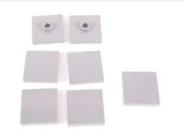




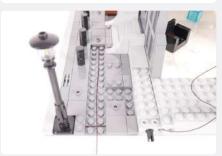
Ensure the cable is routed INBETWEEN studs and not on









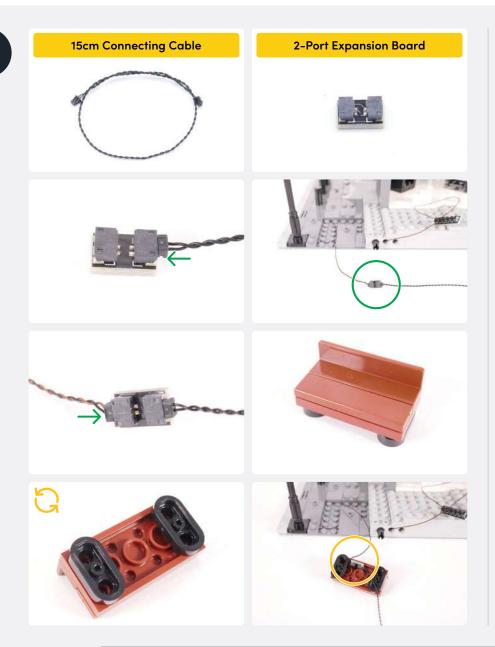


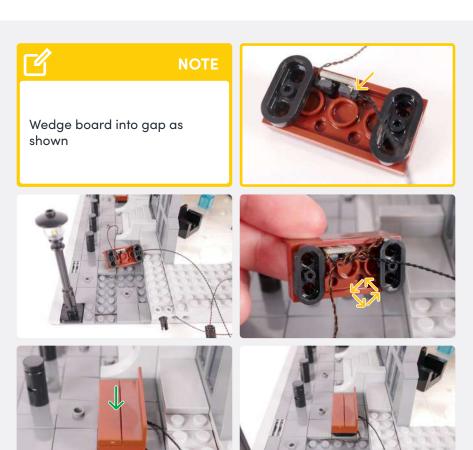




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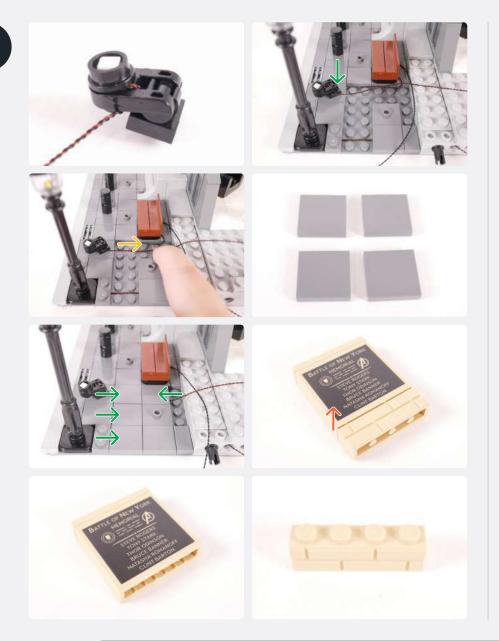


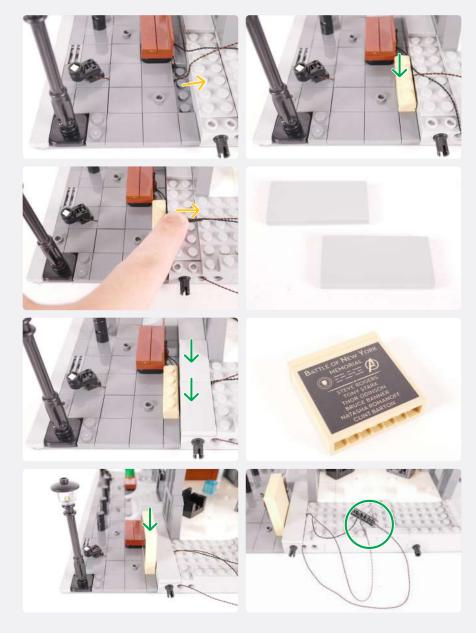


TURN / FLIP



18











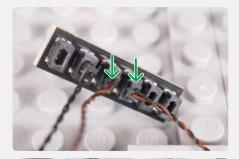




































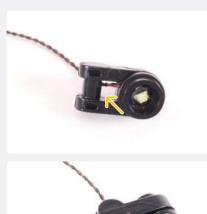




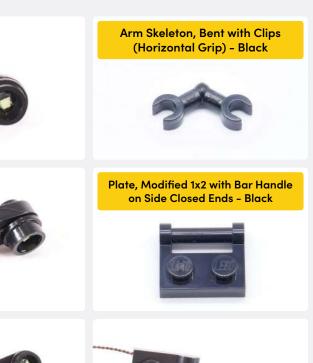




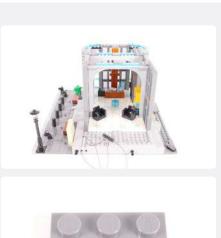










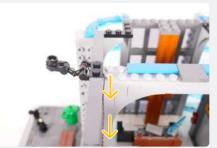












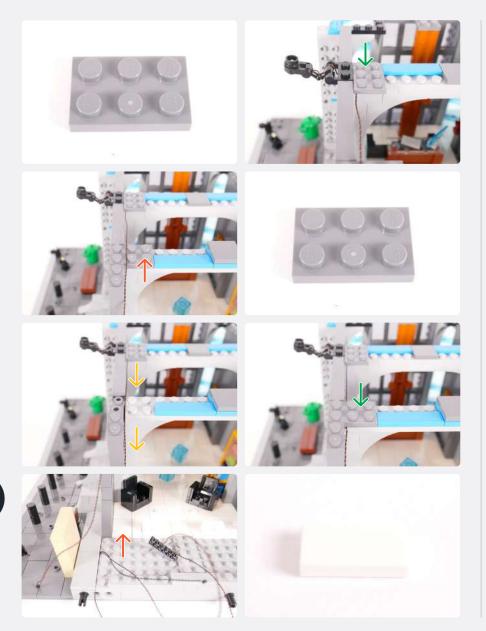












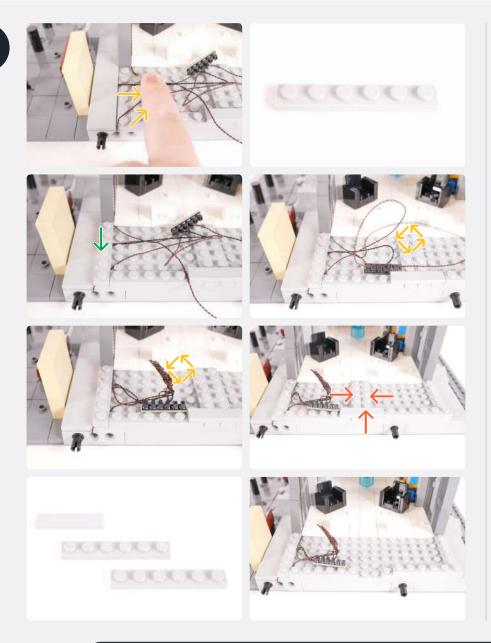


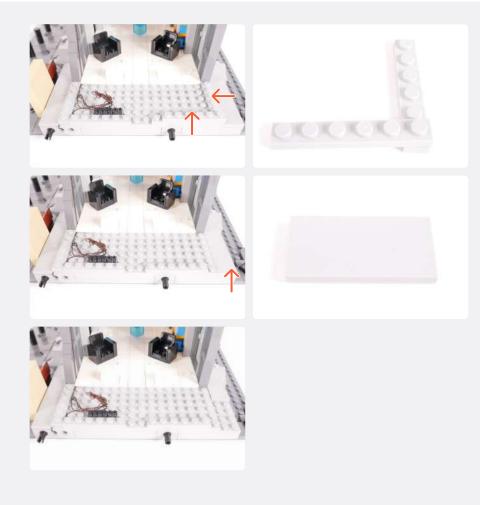
INSTRUCTIONS















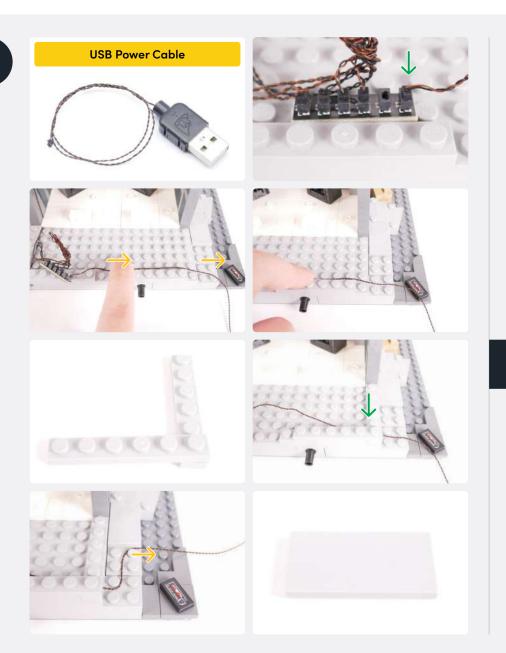




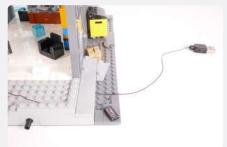




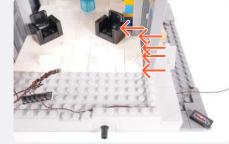








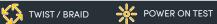






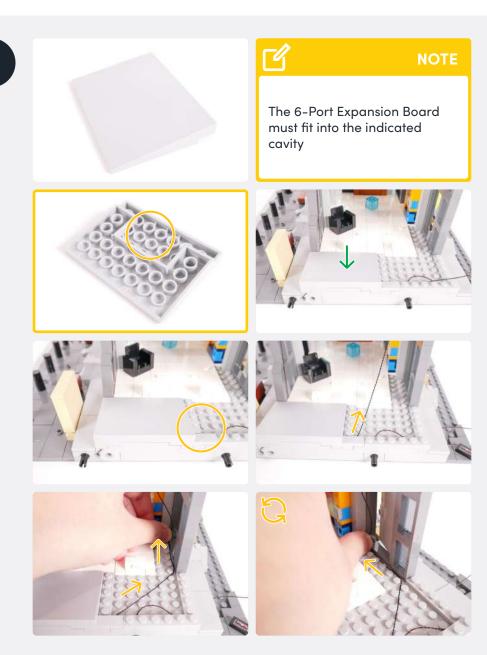




















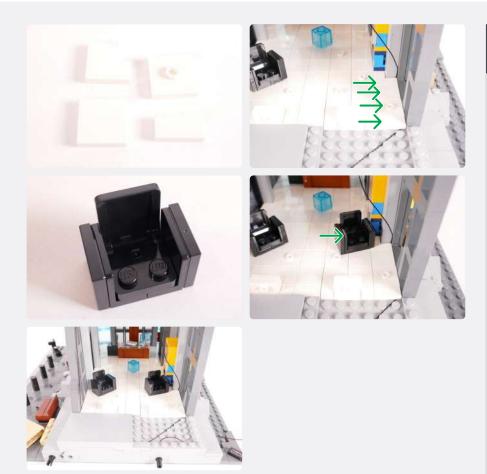






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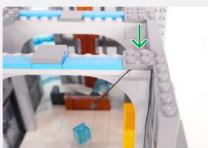






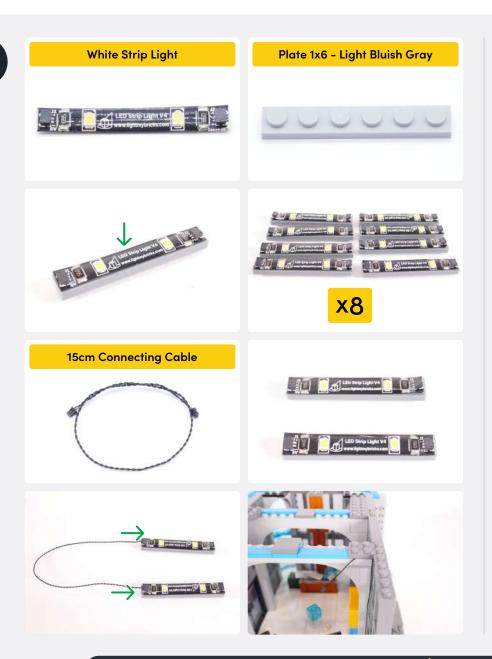


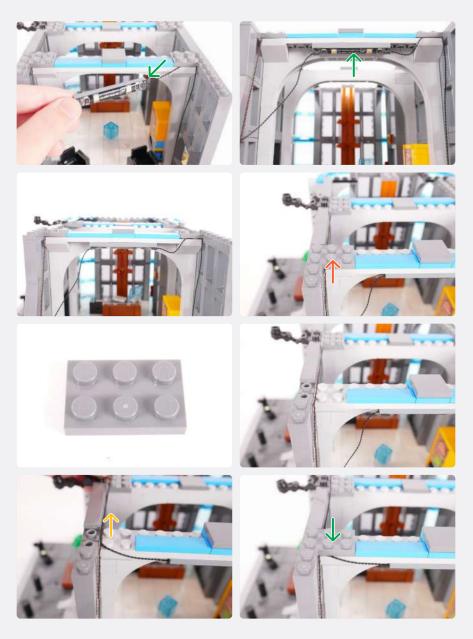






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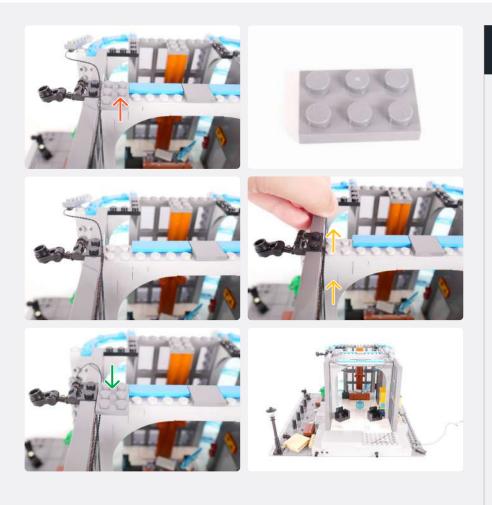














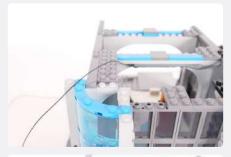




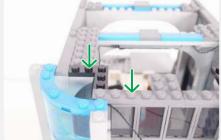




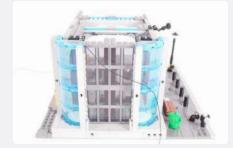
















Connect to a 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)



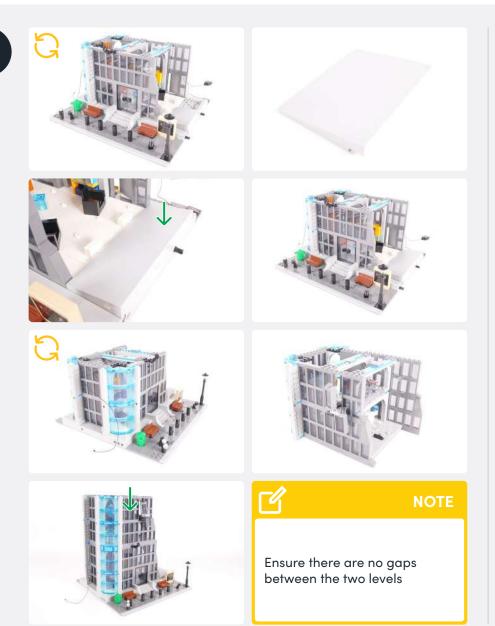


If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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















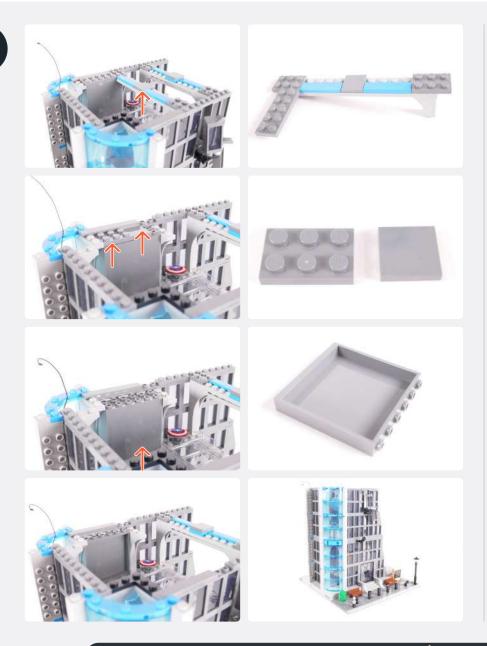


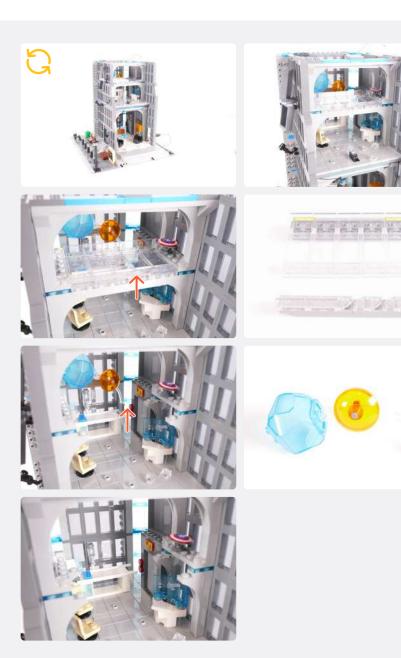
















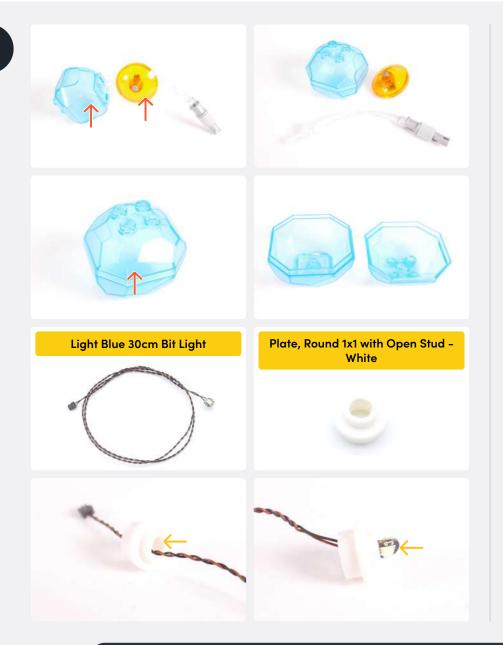


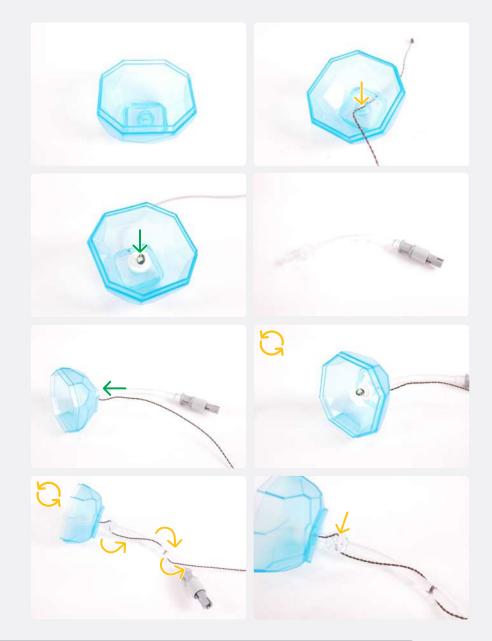












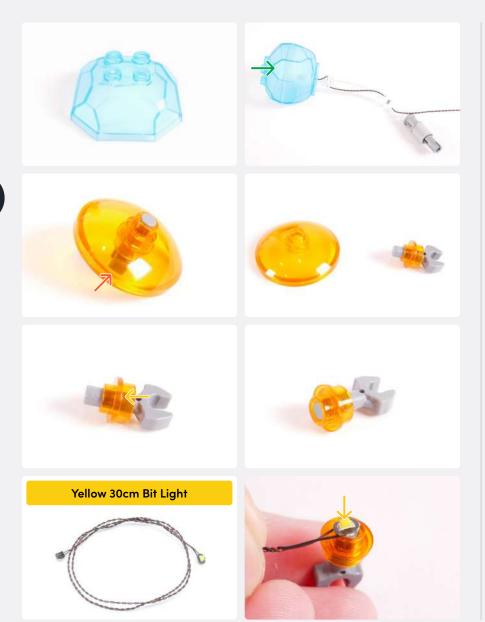
INSTRUCTIONS

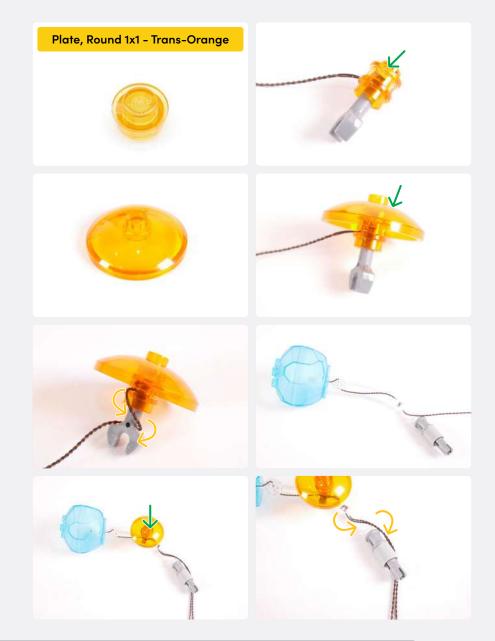










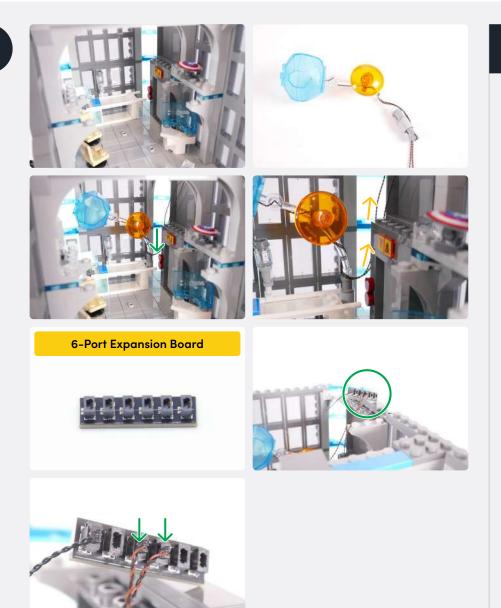


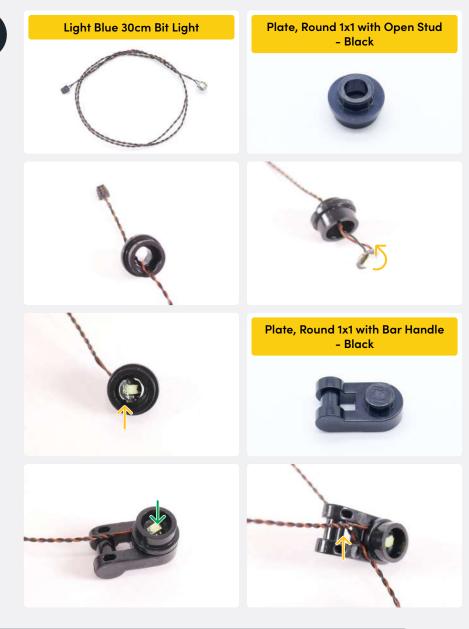






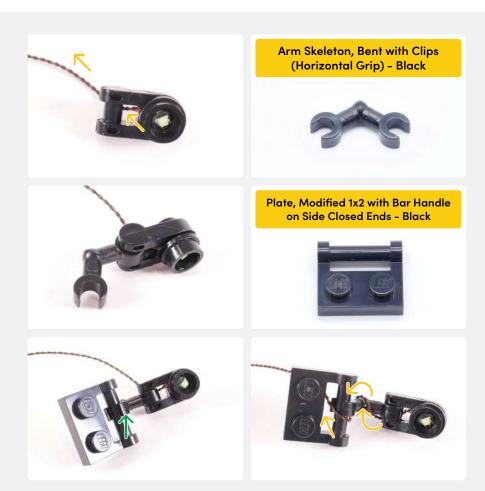






INSTRUCTIONS



















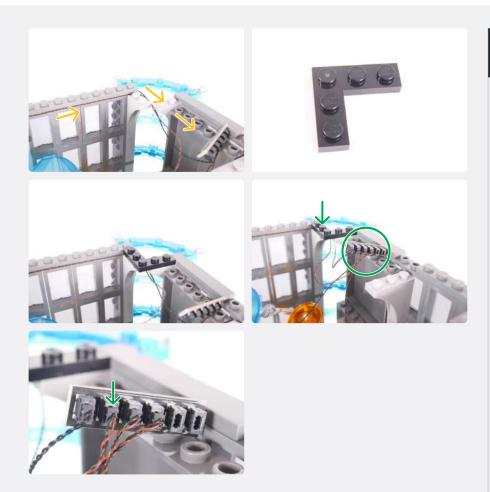




















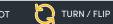




Exclude the 15cm Connecting Cable from the twisting of cables







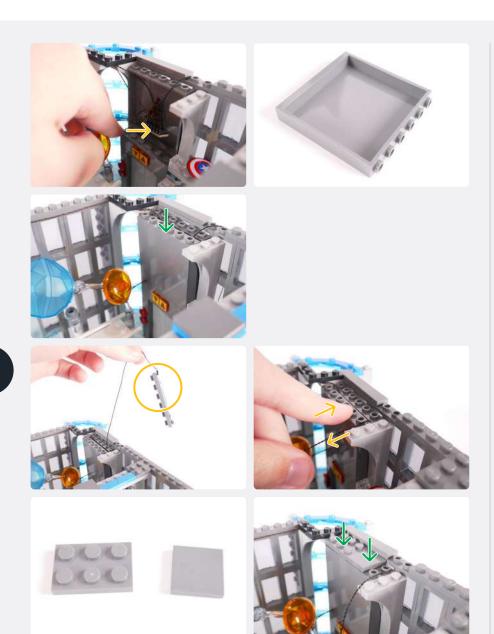






NOTE







INSTRUCTIONS





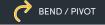






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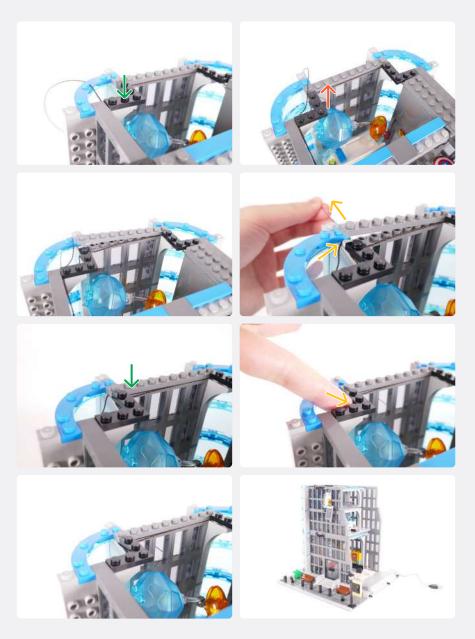












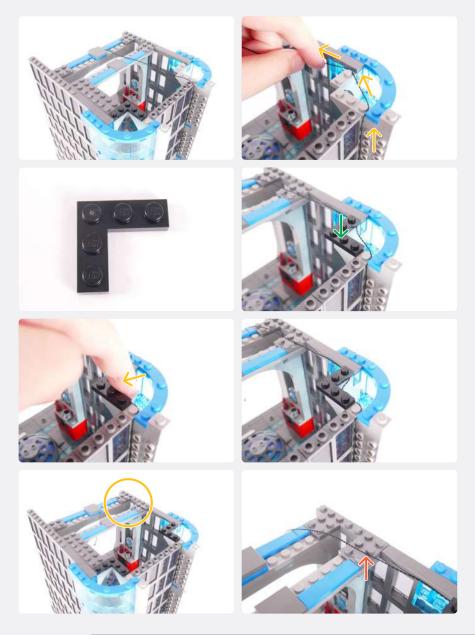


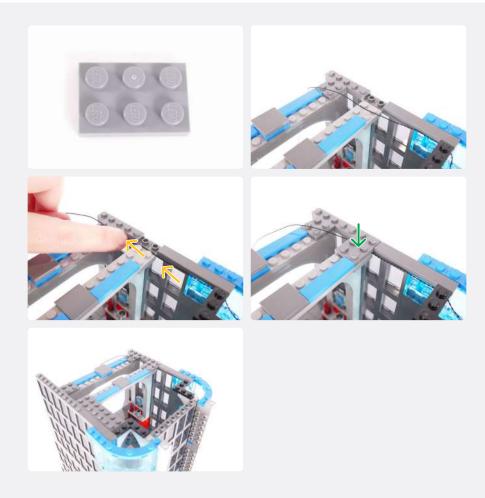






































Connect to a 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)





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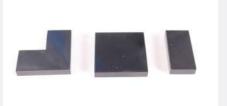
















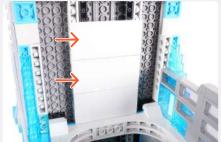
















50cm Connecting Cable







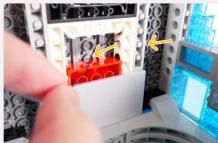




NOTE

Thread the other end of the 50cm Connecting Cable through the Technic holes



































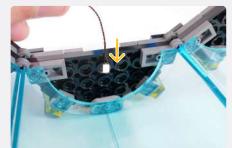












Plate, Round 2x2 with Rounded Bottom (Boat Stud) - Trans-Clear





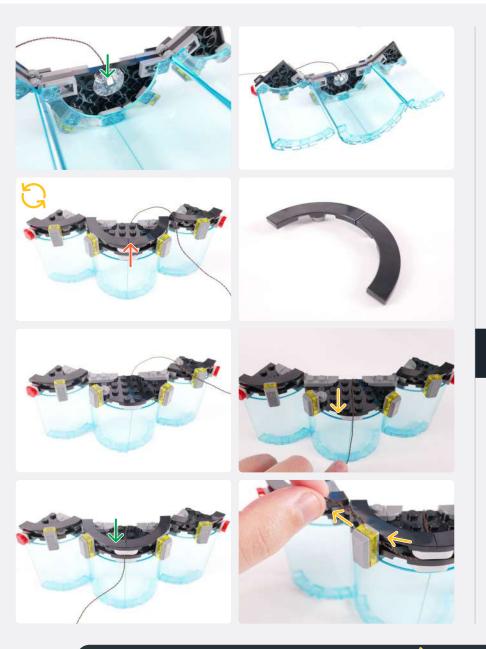














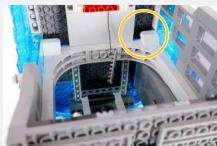








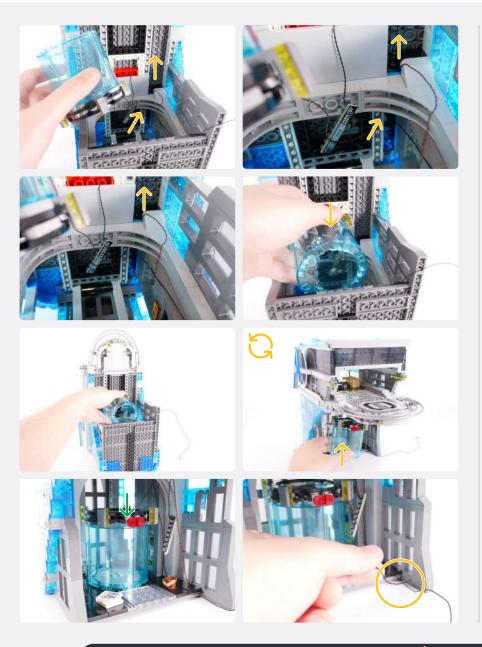


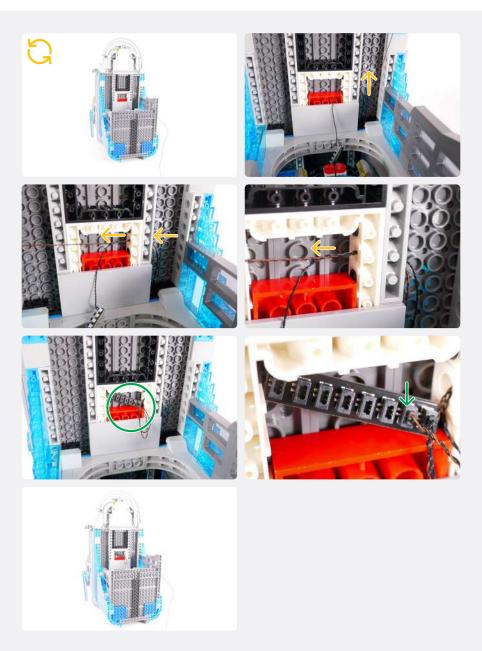


















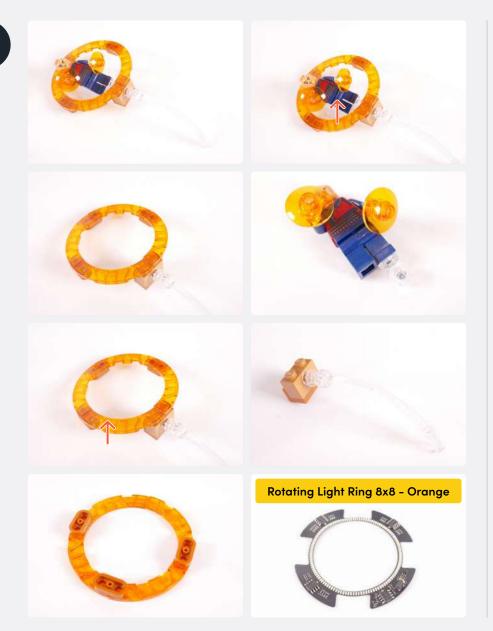


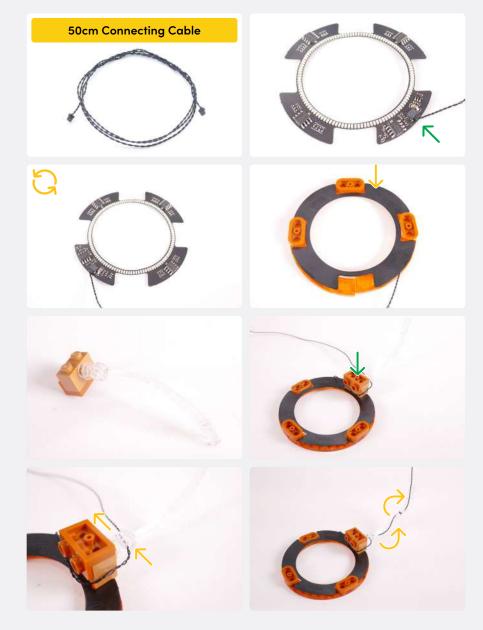






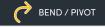














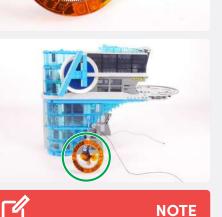








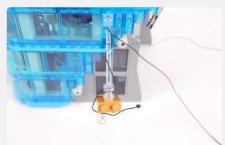






We will now temporarily disconnect the ring. Do this by first disconnecting the 50cm Connecting Cable















NOTE

Slightly disconnect the following section as shown so there is a gap

















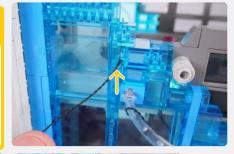






NOTE

Thread the 50cm Connecting Cable (that was connected to the Light Ring) through the gap



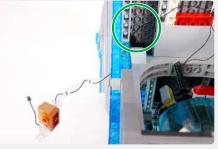


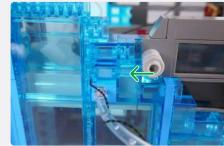






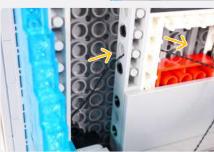














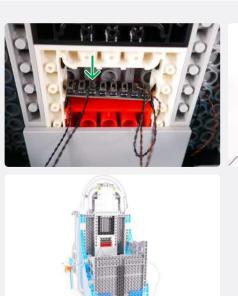




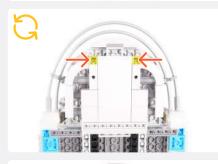


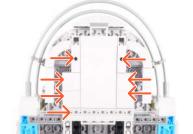






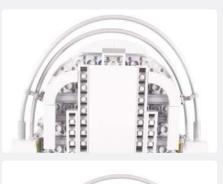










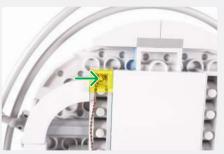


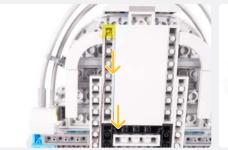






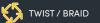










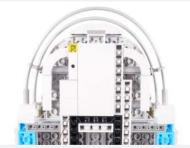






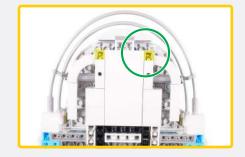




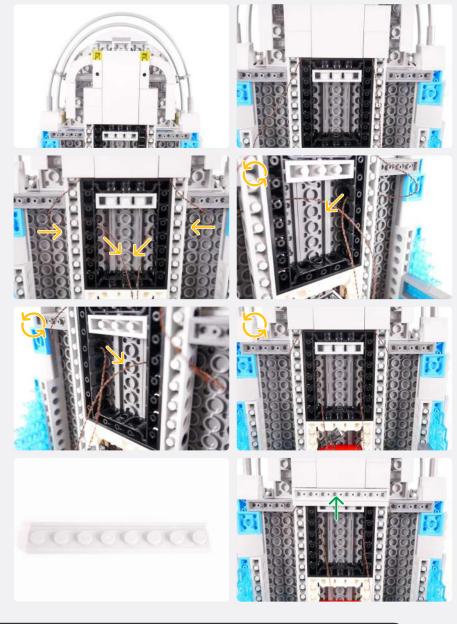




Repeat the same process for the other side









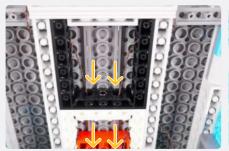




















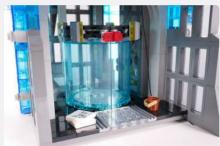








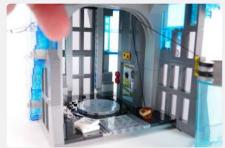






Temporarily disconnect the prison cell









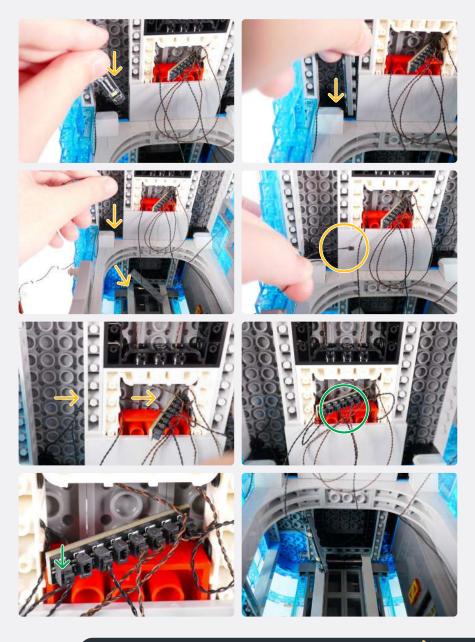








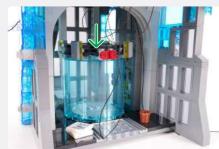








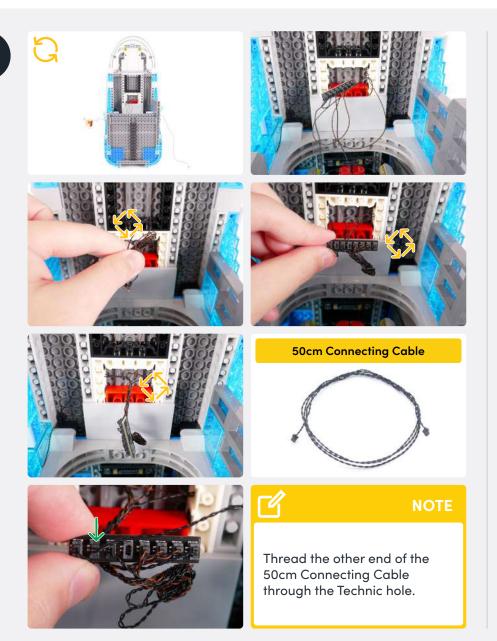


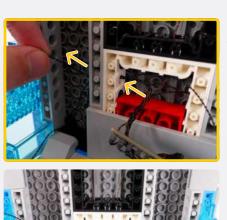


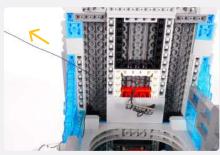


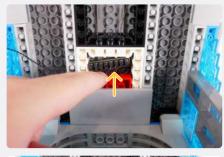




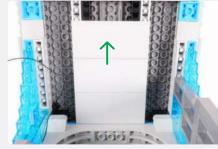
















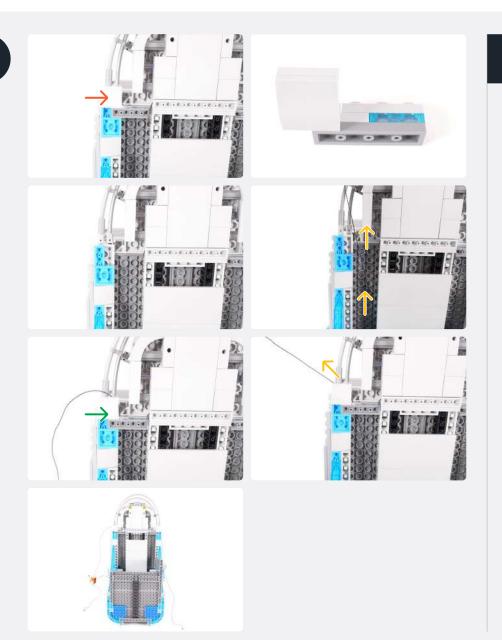




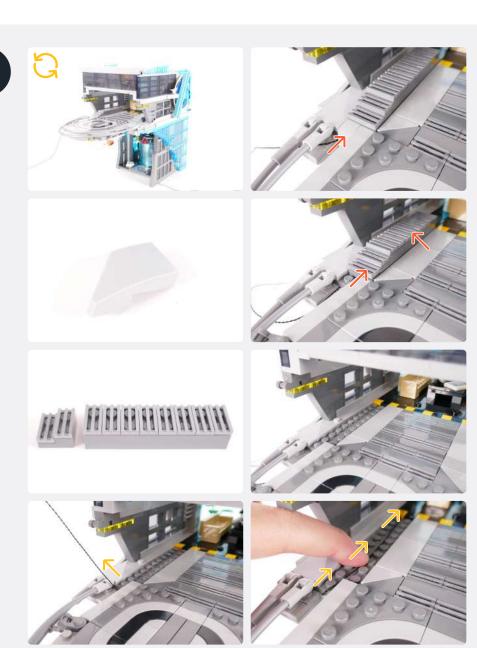








→ CONNECT





BEND / PIVOT

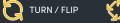






















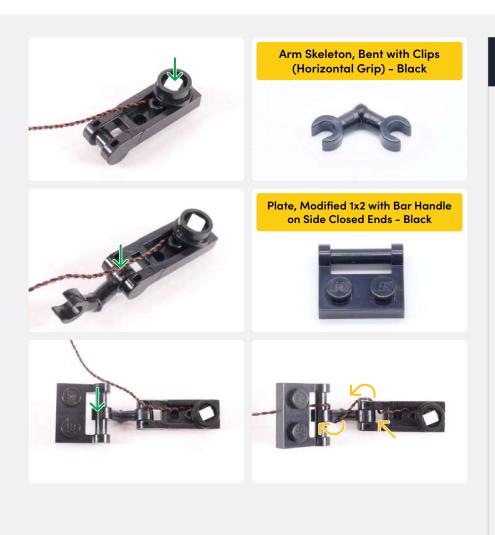






















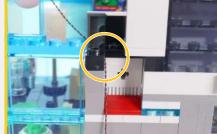








Ensure the cable is stuck inbetween the LEGO pieces























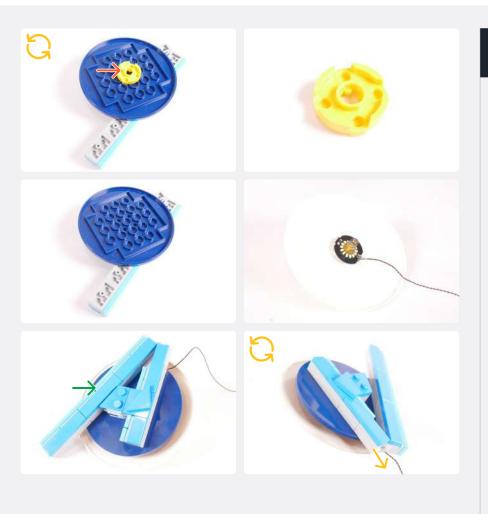




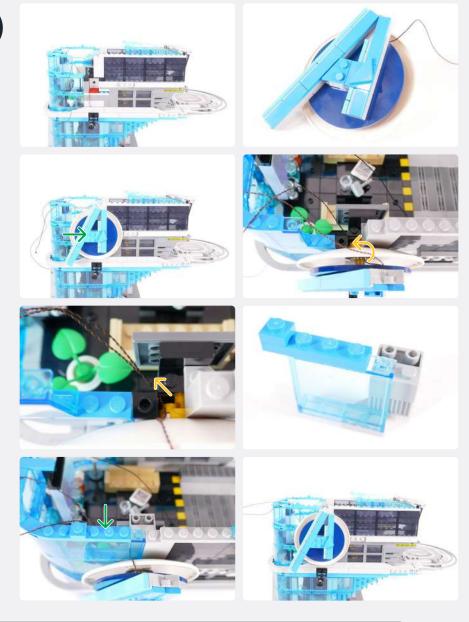








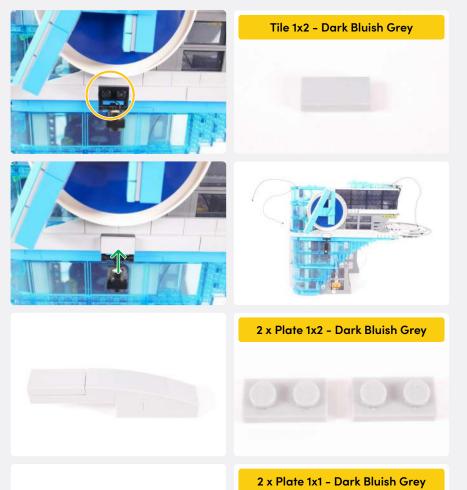


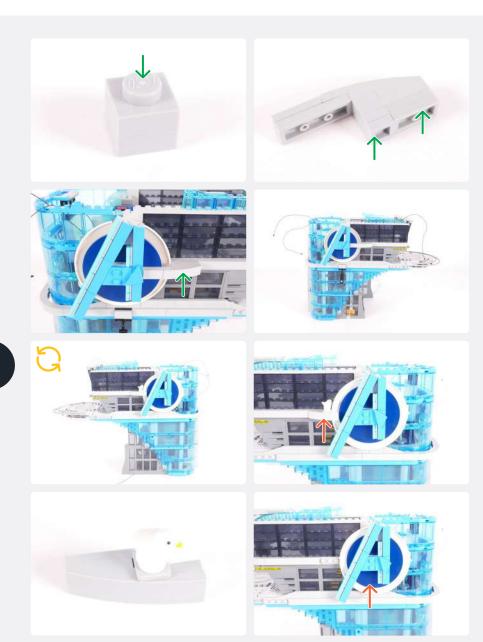
















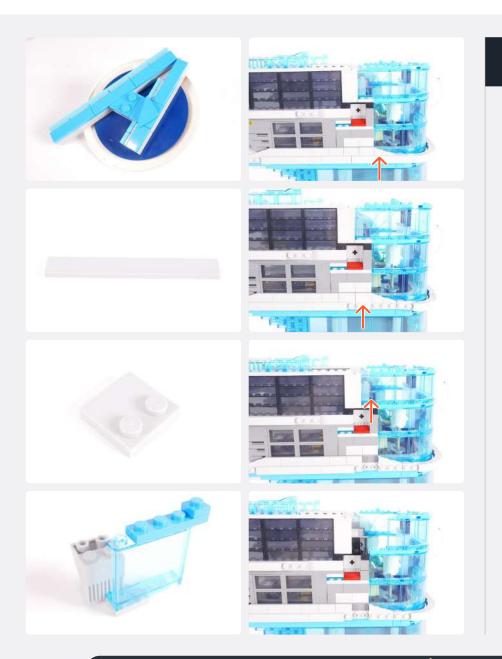


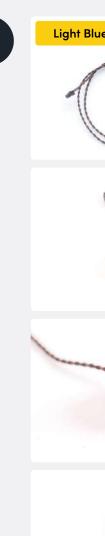


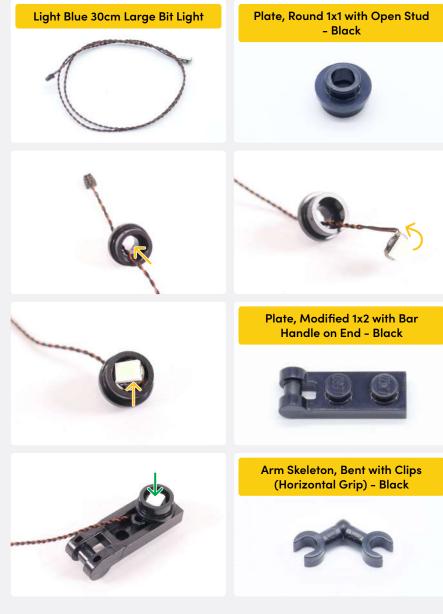




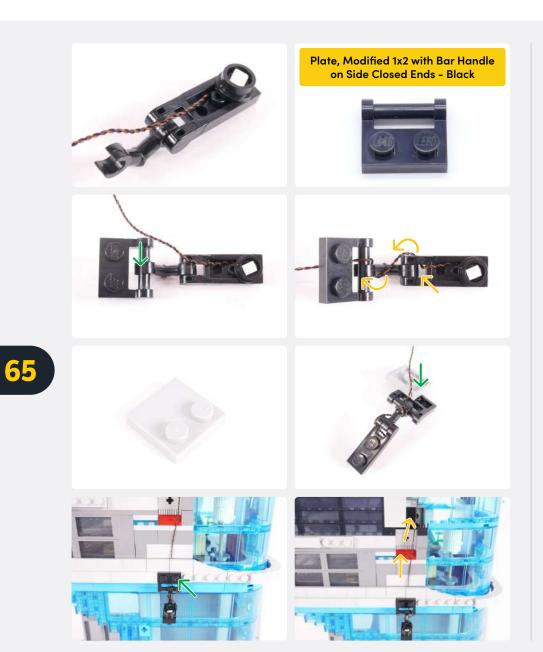












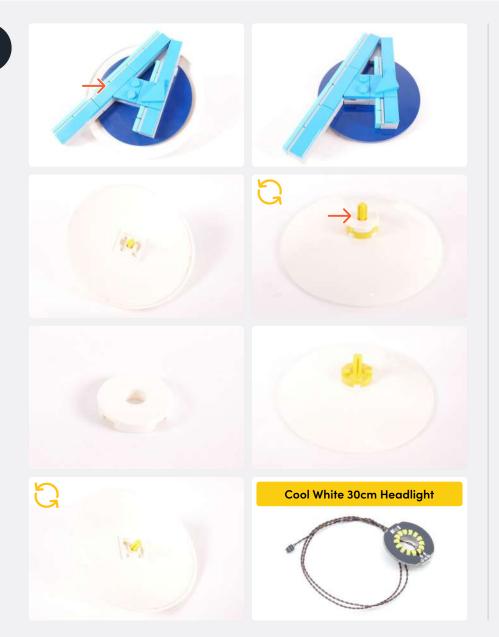


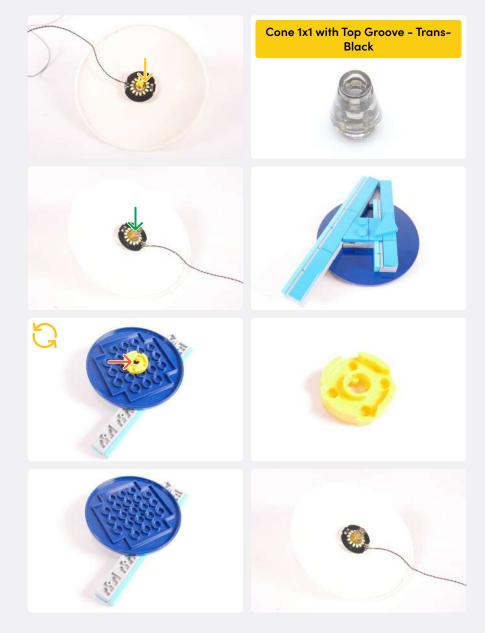


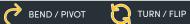








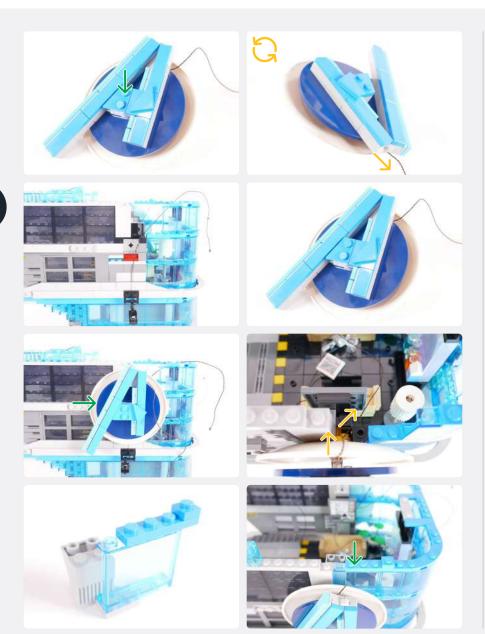


















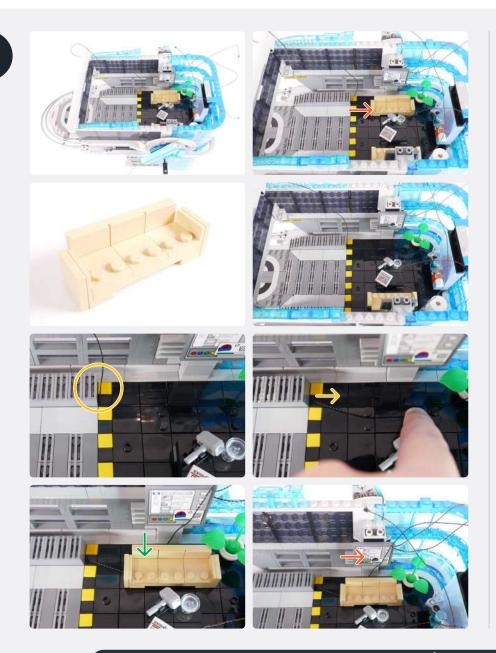


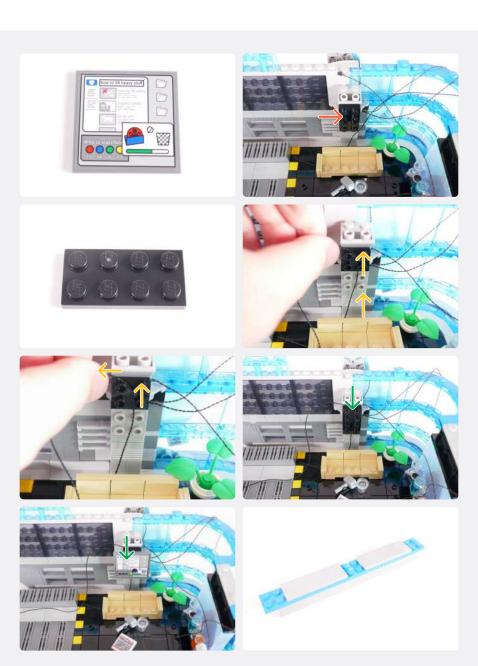










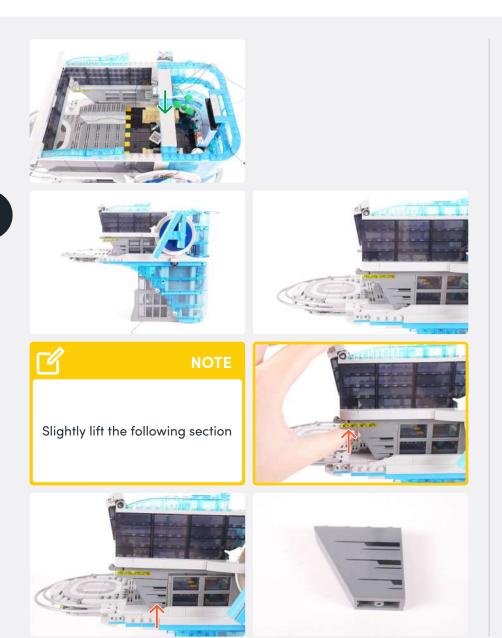


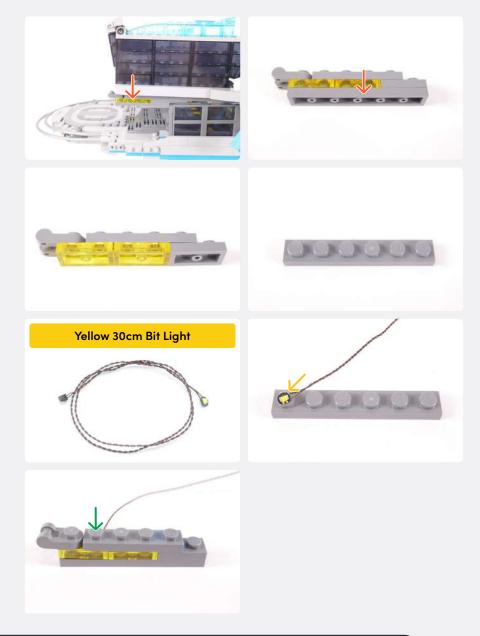












INSTRUCTIONS





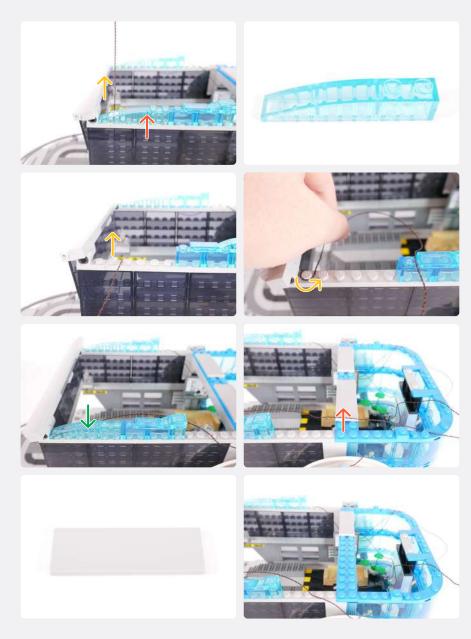


























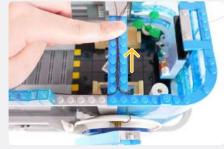




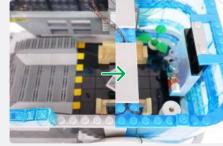
NOTE

Route the cables from this side of the building as shown





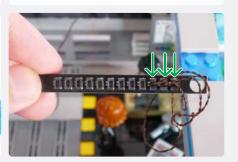


























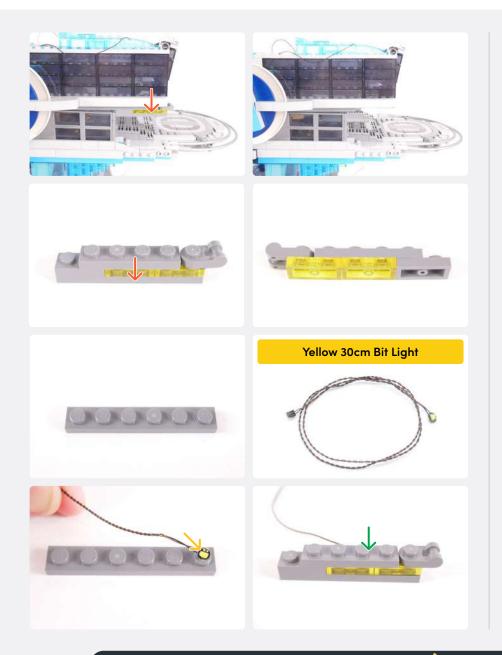














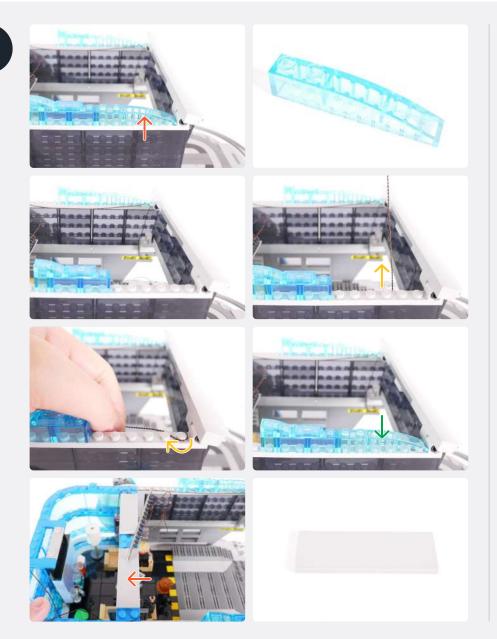


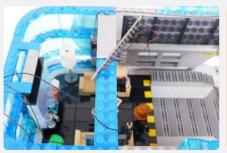








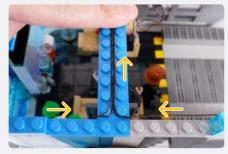


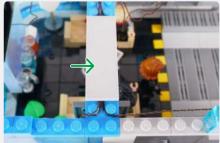




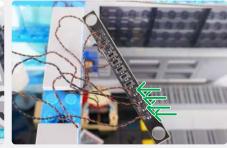
NOTE

Route the cables from this side of the building as shown









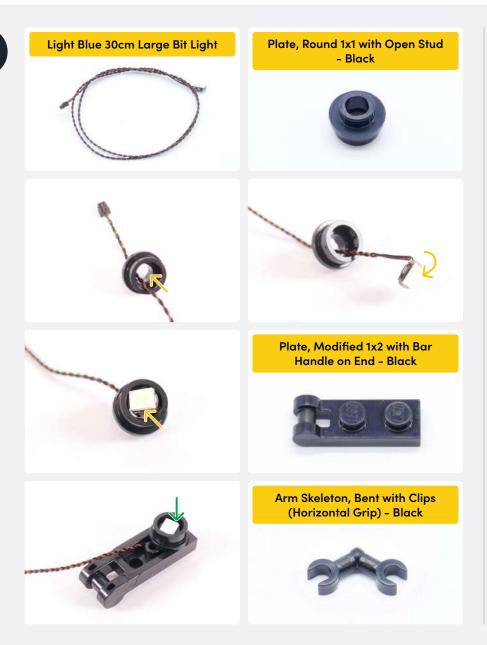


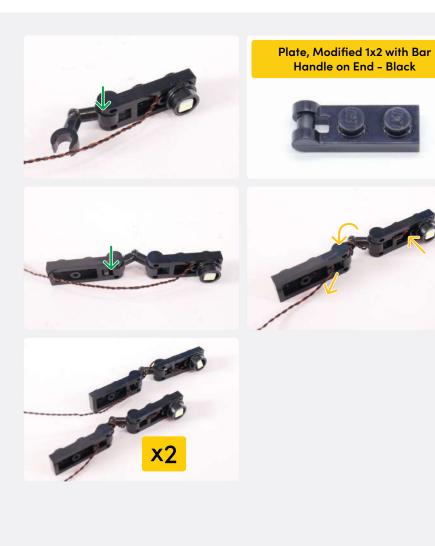
















TURN / FLIP



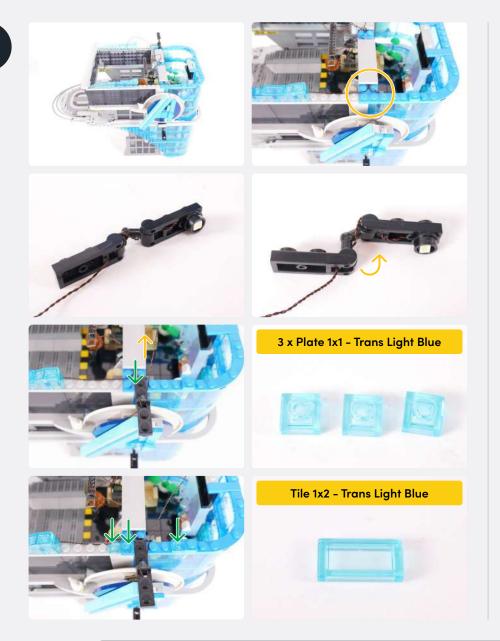


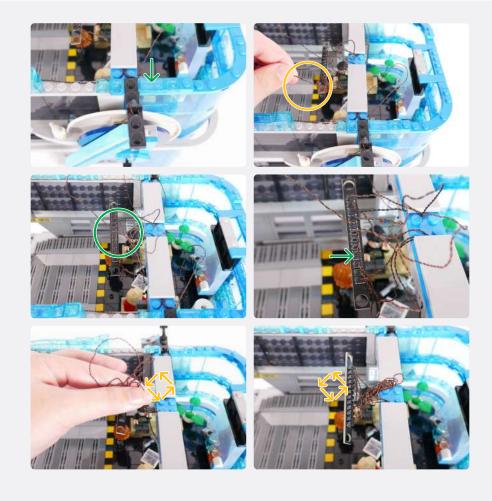










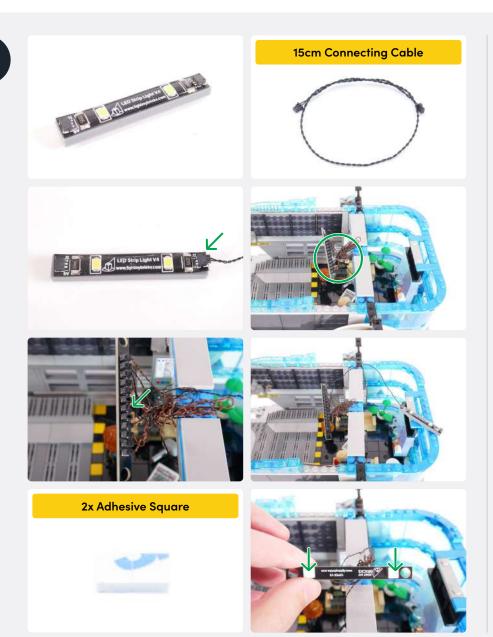


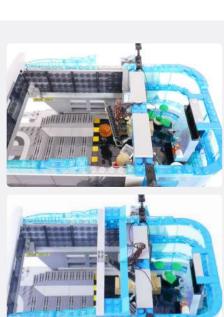




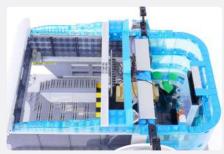














Ensure there are no visible dangling cables. Push up the cables if they are dangling.



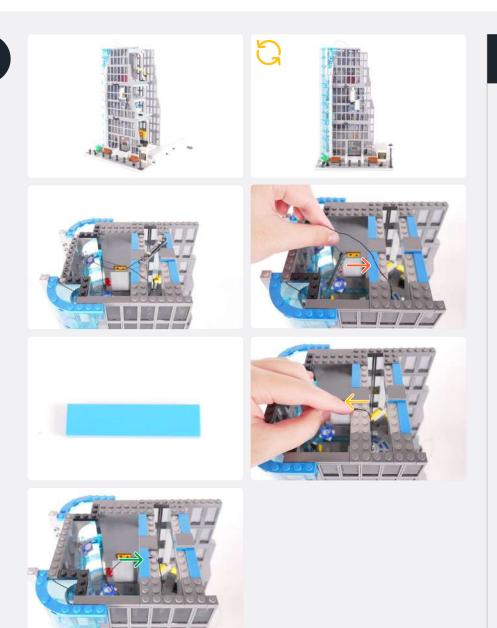






NOTE





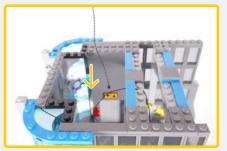






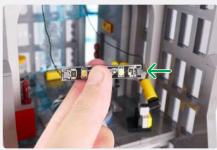
NOTE

Drop the cable from the top section into the following gap before reconnecting the sections













TURN / FLIP



















Reconnect the Connecting Cable to the Ring Light.











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

NOTE

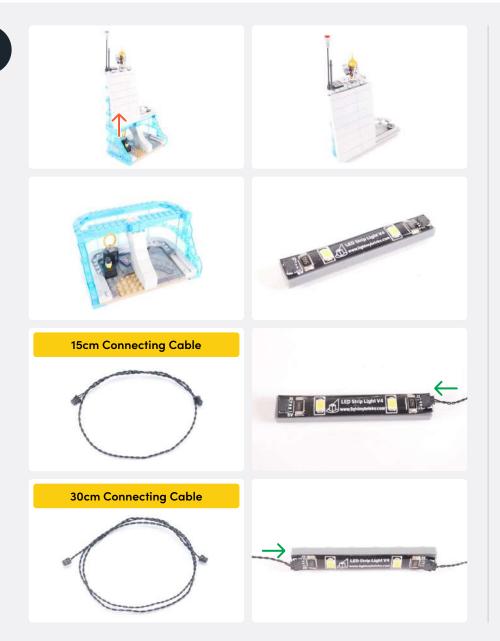


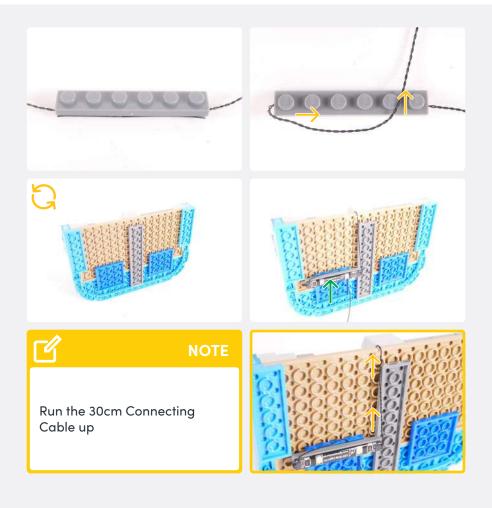


If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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











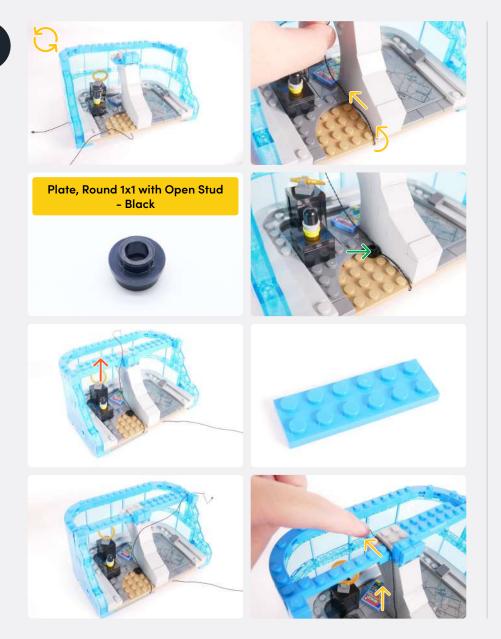


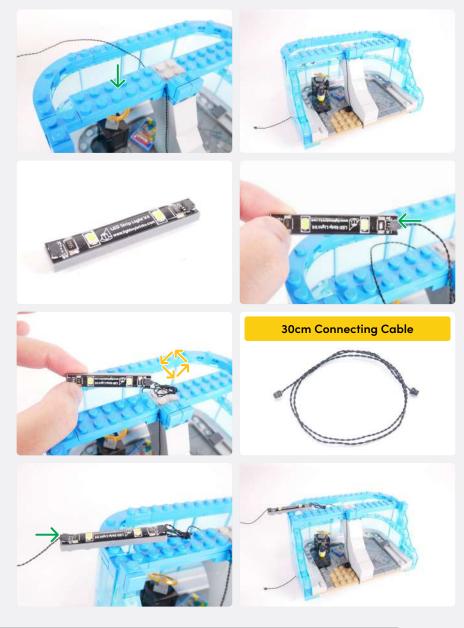






INSTRUCTIONS





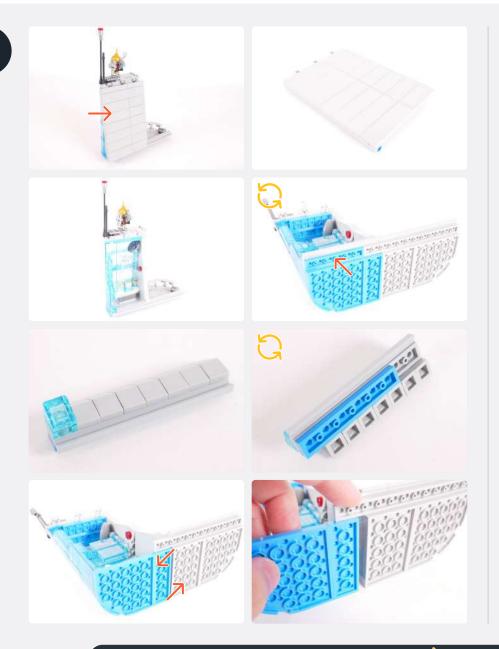














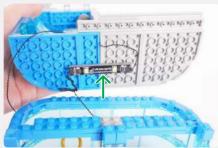
NOTE

Take the end of the 30m Connecting Cable (from the Strip Light) from the previous section and thread it through the gap

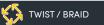






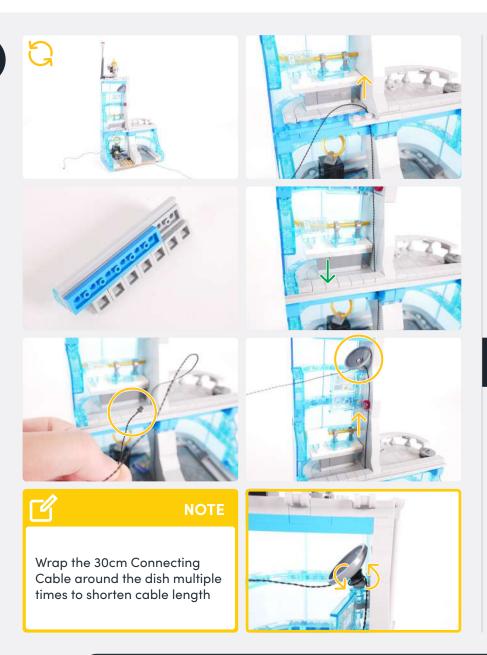


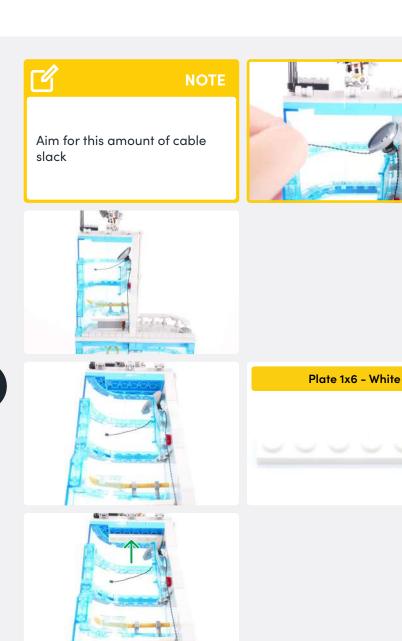








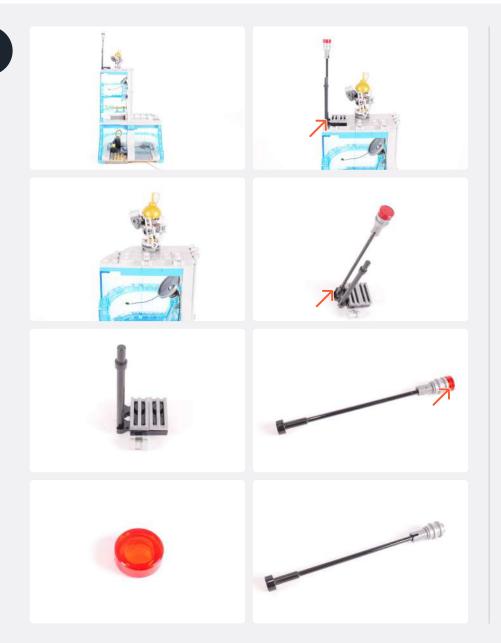


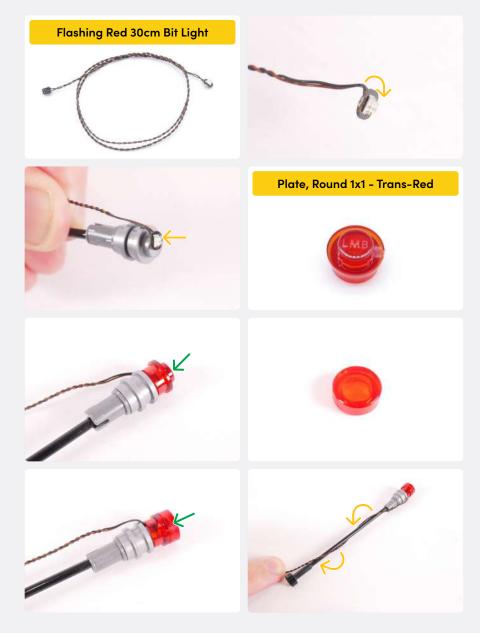


















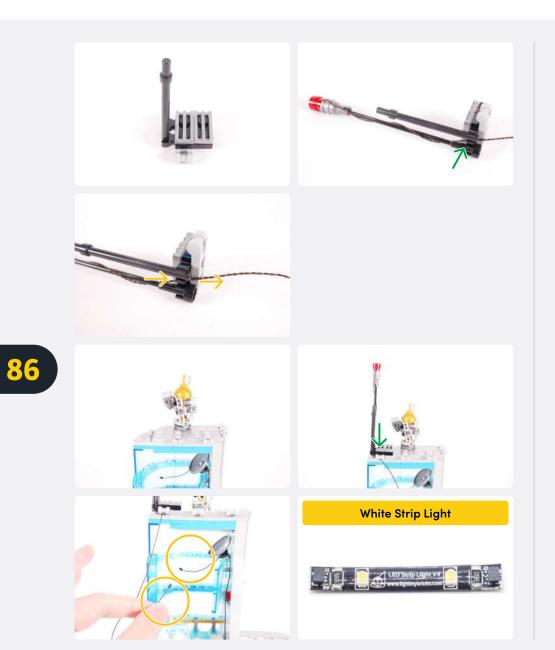


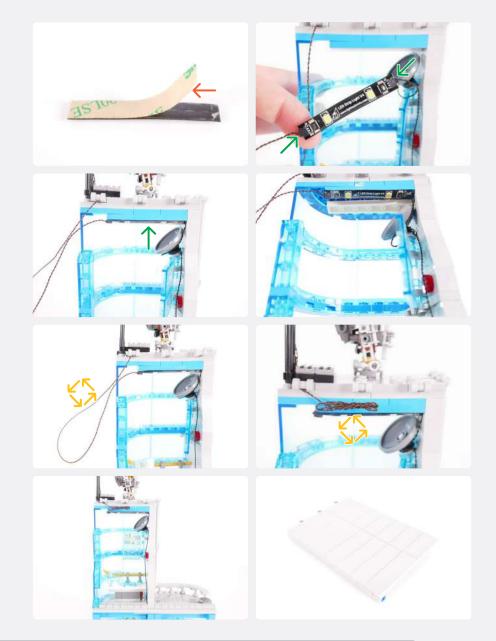




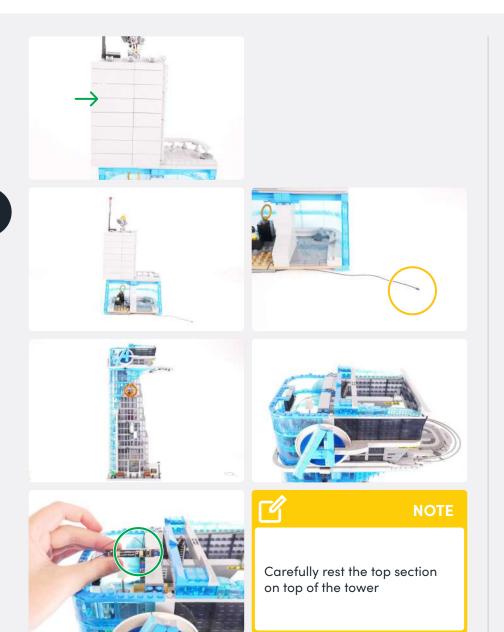


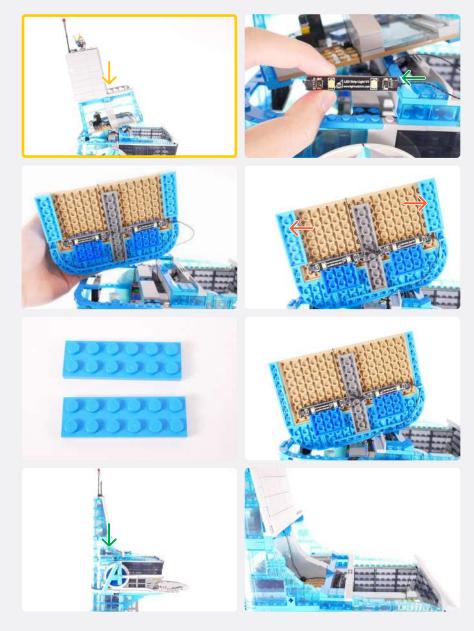




































NOTE

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.



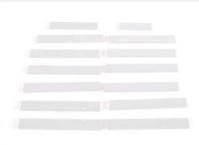
NOTE

For the next few steps, we will be reconnecting all the pieces we removed at the beginning







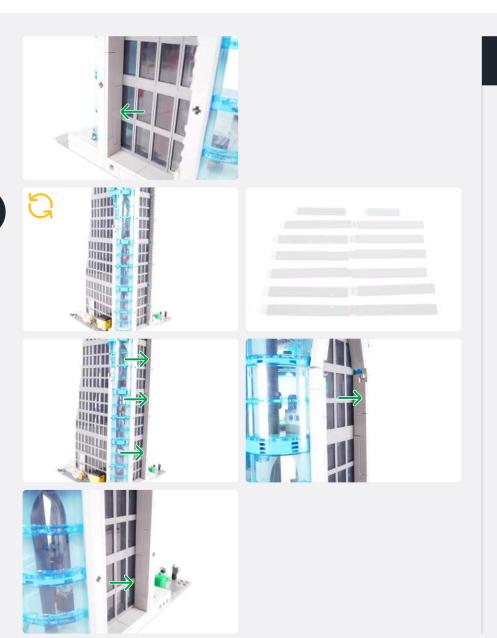












→ CONNECT

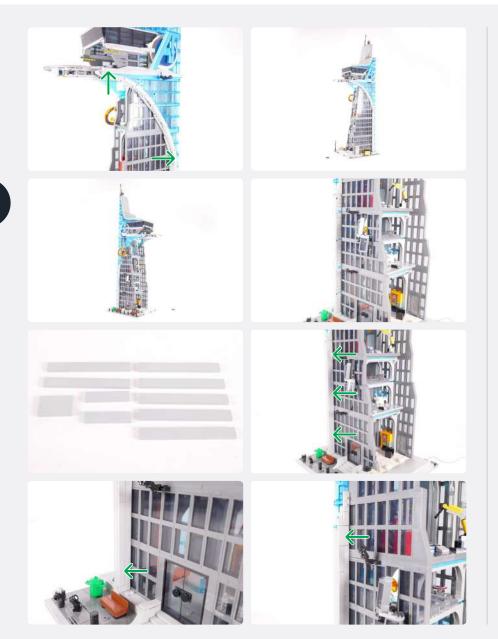


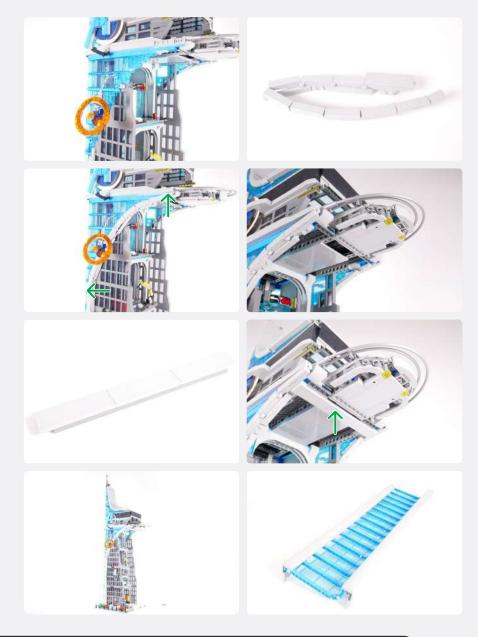






















NOTE

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







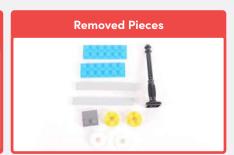


If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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



NOTE

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













FINAL PRODUCT

This finally completes installation of the Light My Bricks

LEGO® Avengers Tower 76269 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