



**LIGHT<sup>MY</sup>  
BRICKS**



**LEGO® EMPIRE STATE BUILDING  
#21046 LIGHT KIT  
INSTALLATION GUIDE**

# Light My Bricks



## LEGO® EMPIRE STATE BUILDING 21046 INSTALLATION GUIDE

Hi There!

We're here to help you get started on the LEGO®  
Empire State Building 21046 Light Kit.

This PDF details the instructions for the LED light kit only.

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

Have fun and enjoy!

INSTALLATION GUIDE





## PACKAGE CONTENTS:



1x Warm White LED Light String  
4x White 15cm Bit Light  
1x White 30cm Bit Light  
5x Warm White Large 30cm Bit Light



2x 6-Port Expansion Board  
1x 8-Port Expansion Board

4x Adhesive Squares



2x 30cm Connecting Cable



1x USB Power Cable  
(Power Source not Included)

## ASSORTED BRICKS:



- 4x Round Plate 1x1 Open Stud - Black
- 4x Plate 1x1 Mod Rounded w Handle - Black
- 4x Tile 1x1 W Clip Round Edges - Black
- 2x Tile 1x2 - Black
- 4x Plate 1x1 - Black
- 4x Slope 30 1 x 1 x 2/3 - Trans Clear
- 4x Bracket 1x1 - 1x1 Inverted - Dark Grey
- 2x Round Plate 1x1 Open Stud - Light Grey

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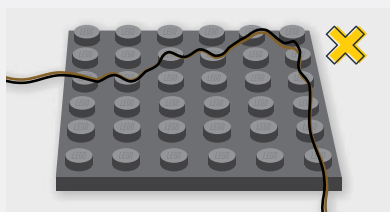
## Before You Begin



### Laying cables in between and underneath bricks

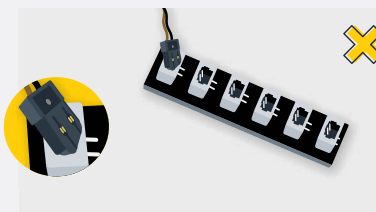
Cables can fit in between and underneath LEGO® bricks, plates, and tiles providing they are laid correctly between the LEGO® studs. Do NOT forcefully join LEGO® together around cables; instead ensure they are laying comfortably in between each stud.

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



### Connecting Cable Connectors To Expansion Boards

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



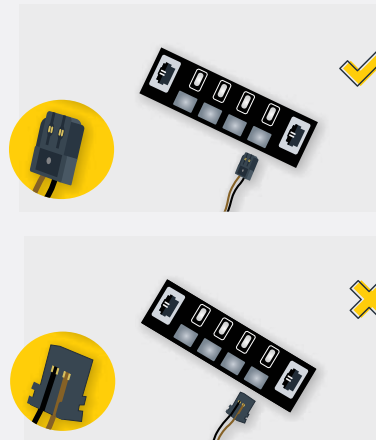
*Incorrectly inserting the connector can result in bent pins inside the port or possible overheating of the expansion board when connected.*

## Before You Begin



### Connecting Cable Connectors To Strip Lights

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



### Connecting Micro Cable Connectors To Micro Expansion Board Ports

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

## Before You Begin

### Installing Bit Lights Under Lego® Bricks And Plates

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

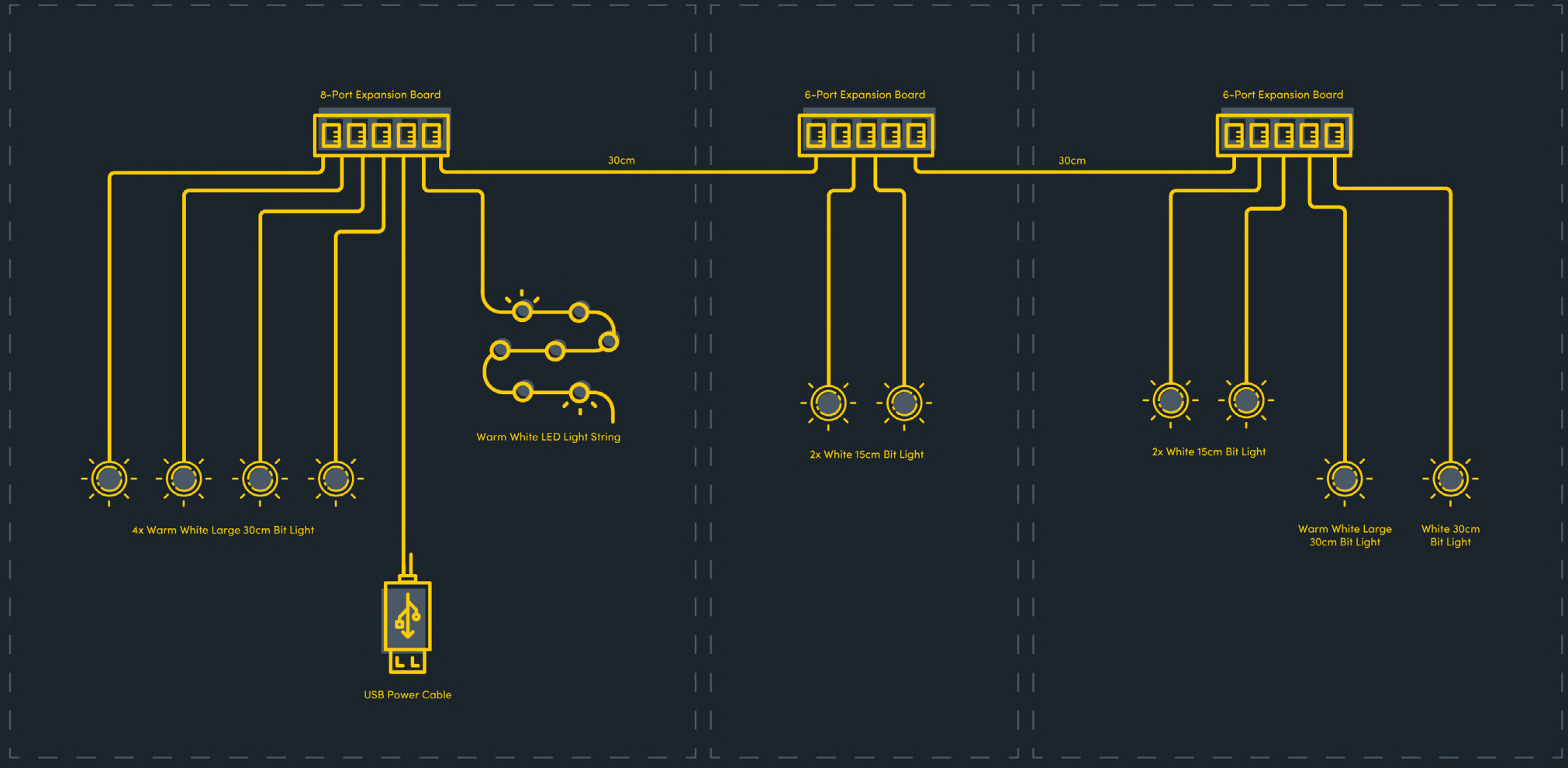


# BLUEPRINT

Steps 1-11

Steps 12-13

Steps 14-21





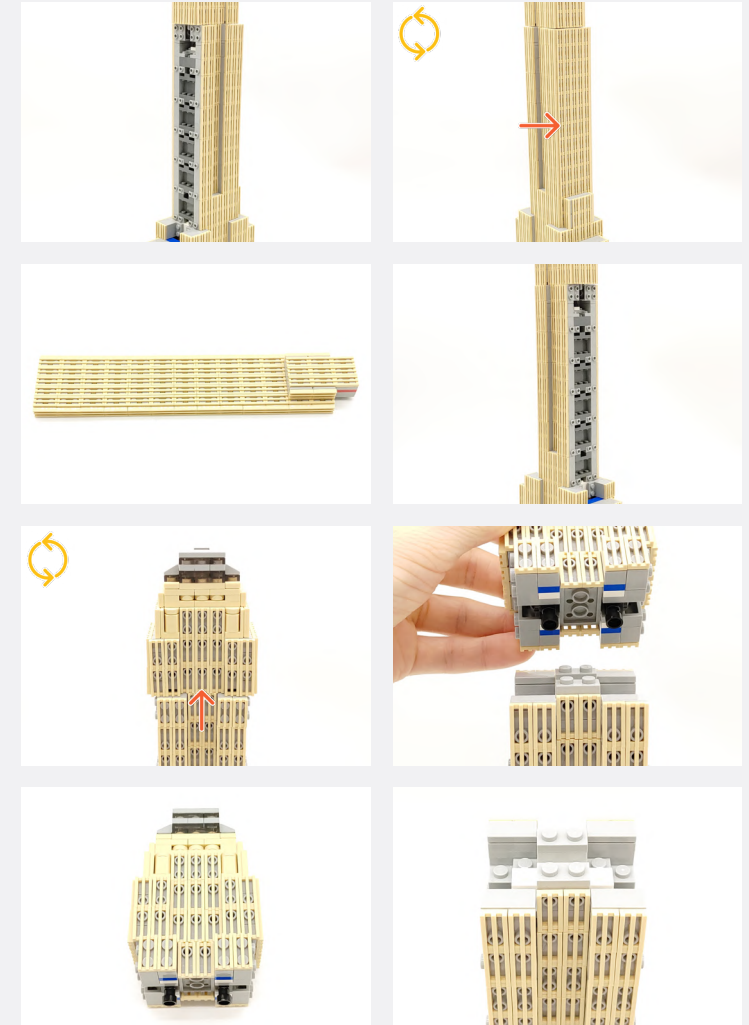
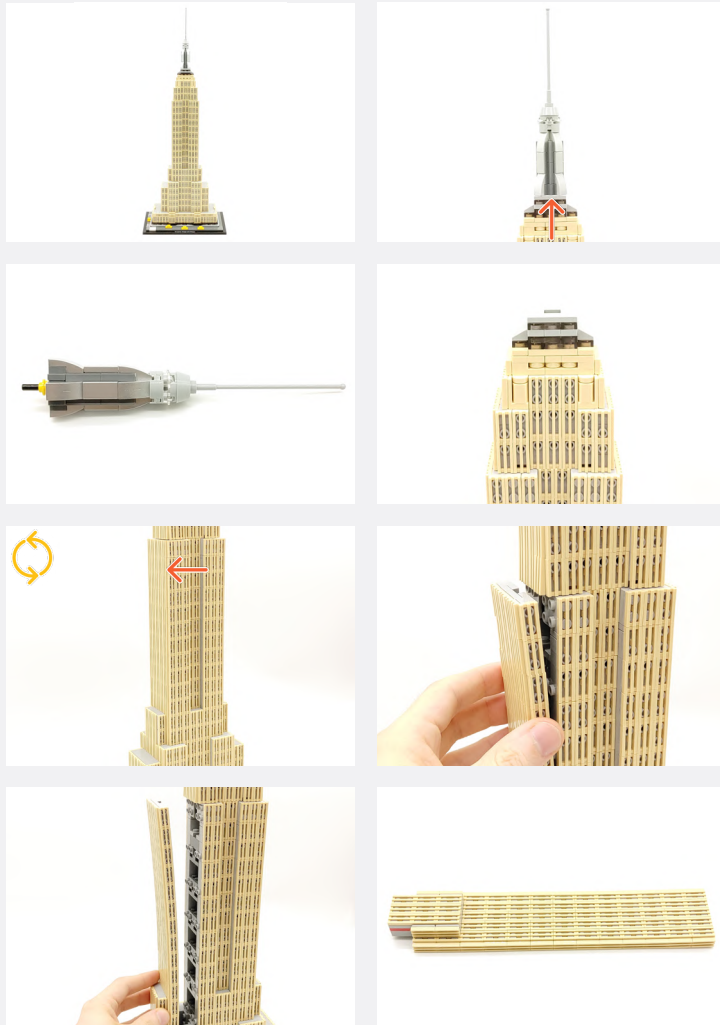


# INSTRUCTIONS

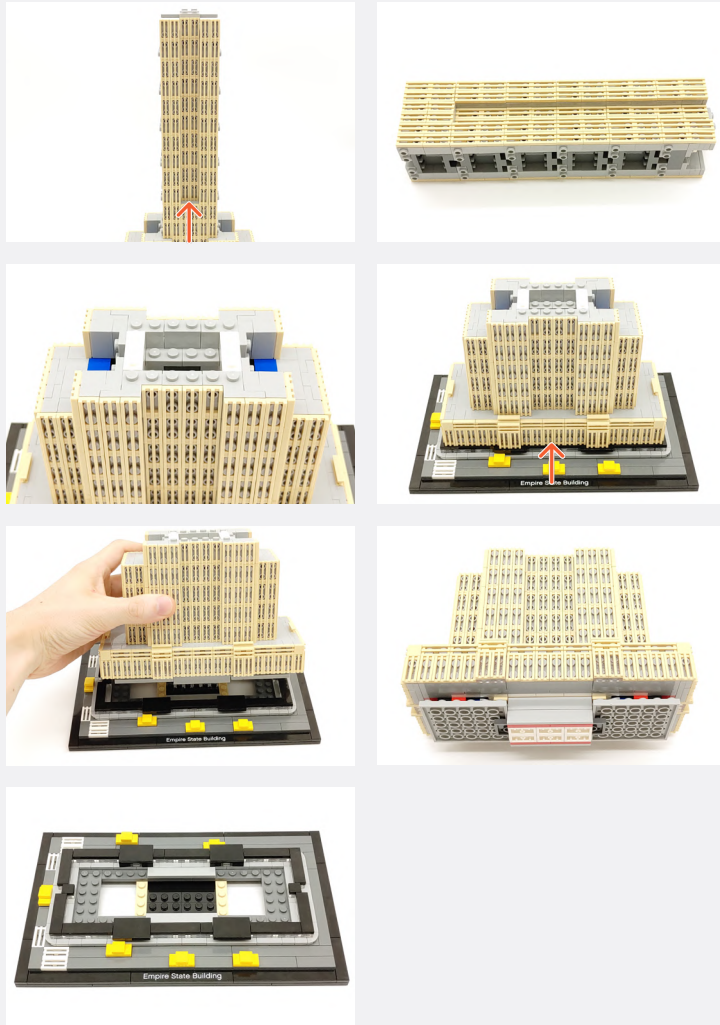
To ensure a smooth installation of your light kit, please read and follow each step carefully. If you run into any issues, please refer to the online troubleshooting guide.

	LEGEND:		DISCONNECT		CONNECT / RECONNECT		TURN / FLIP		DIRECTIONAL		TWIST / BRAID		POWER ON / TEST
	LEGENDE:		TRENNEN		VERNINDEN / WIEDERVERBINDEN		WENDEN / KIPPEN		DIRECTIONAL		DREHEN / VERDREHEN		EINSCHALTEN / TESTEN
	LÉGENDE:		DÉCONNECTER		CONNECTER / RECONNECTER		TOUR / INCLINAISON		DIRECTIONNEL		TORSION / TRESSER		POWER ON / TEST
	LEGGENDA:		SCOLLEGARE		CONNETTI / RICONNETTI		ROTARE / INCLINARE		DIREZIONALE		TWIST / TRECCIA		POWER ON / TEST

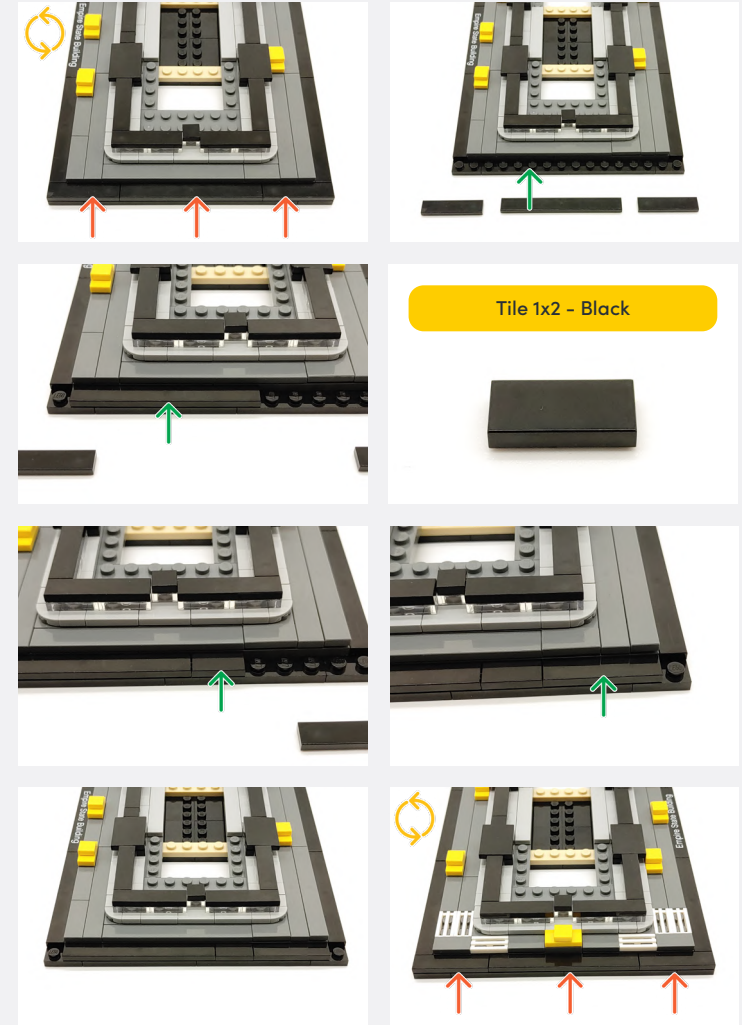
1



**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID ✨ POWER ON TEST 📝 NOTE ICON



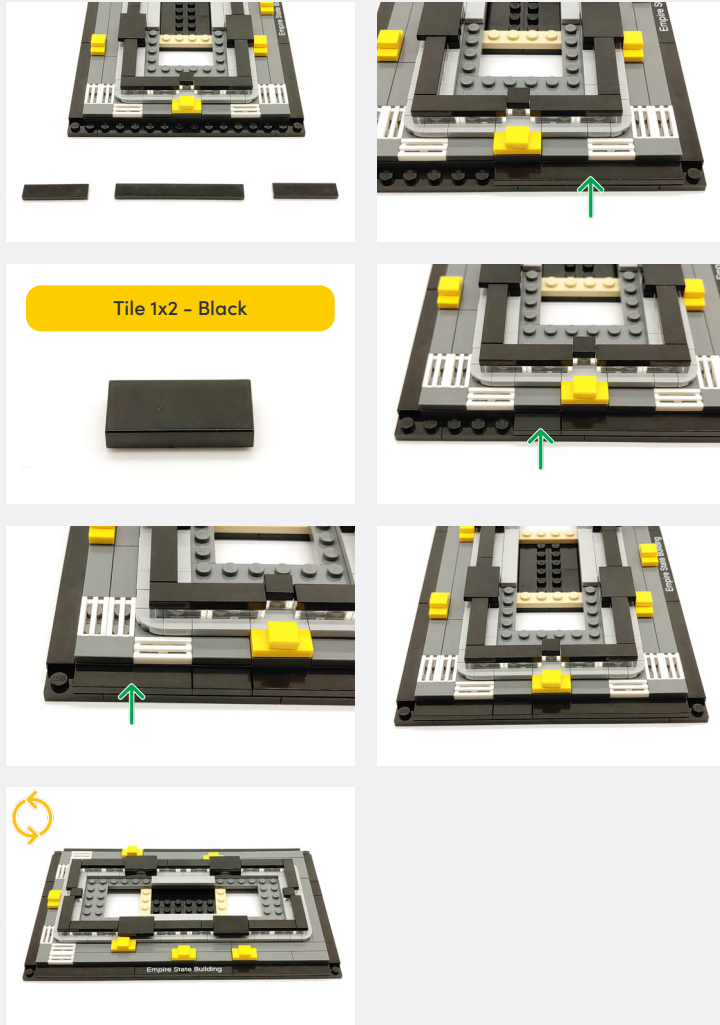
**2**



**Tile 1x2 - Black**



**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON

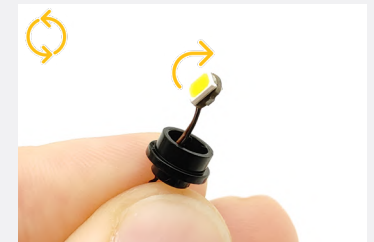
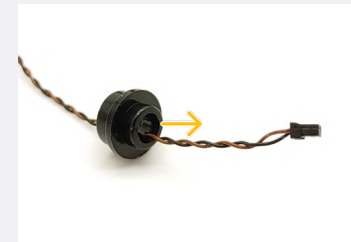


**3**

Black Round Plate 1x1 w/ Open Stud



Warm White 30cm Large Bit Light



Black 1x1 Plate Modified Plate Rounded w/ Handle



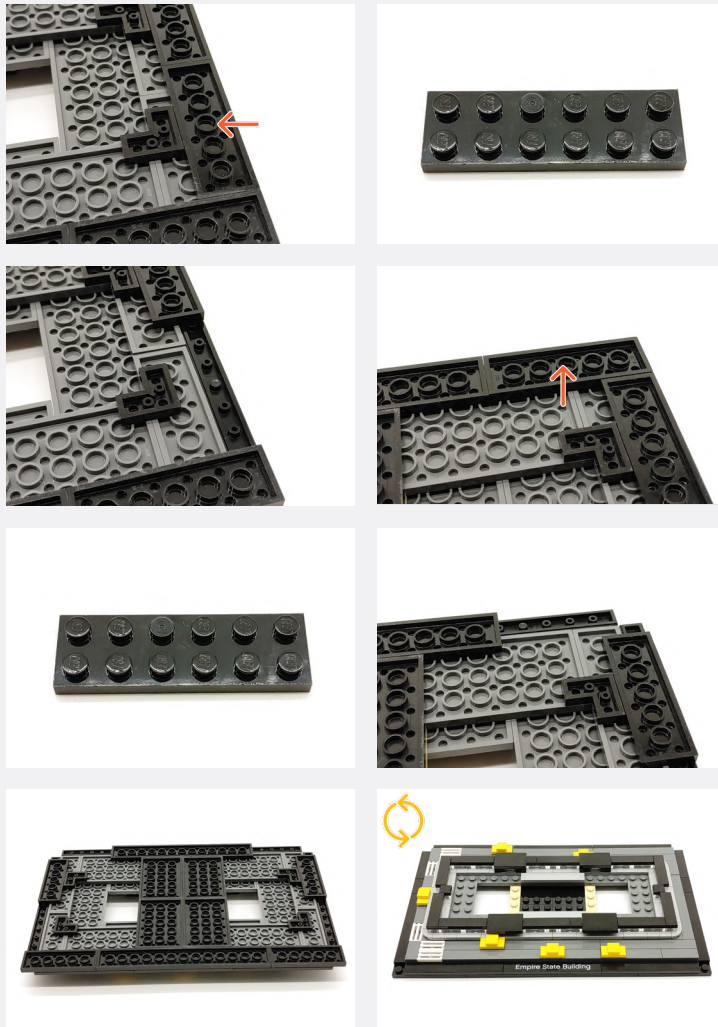
**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON



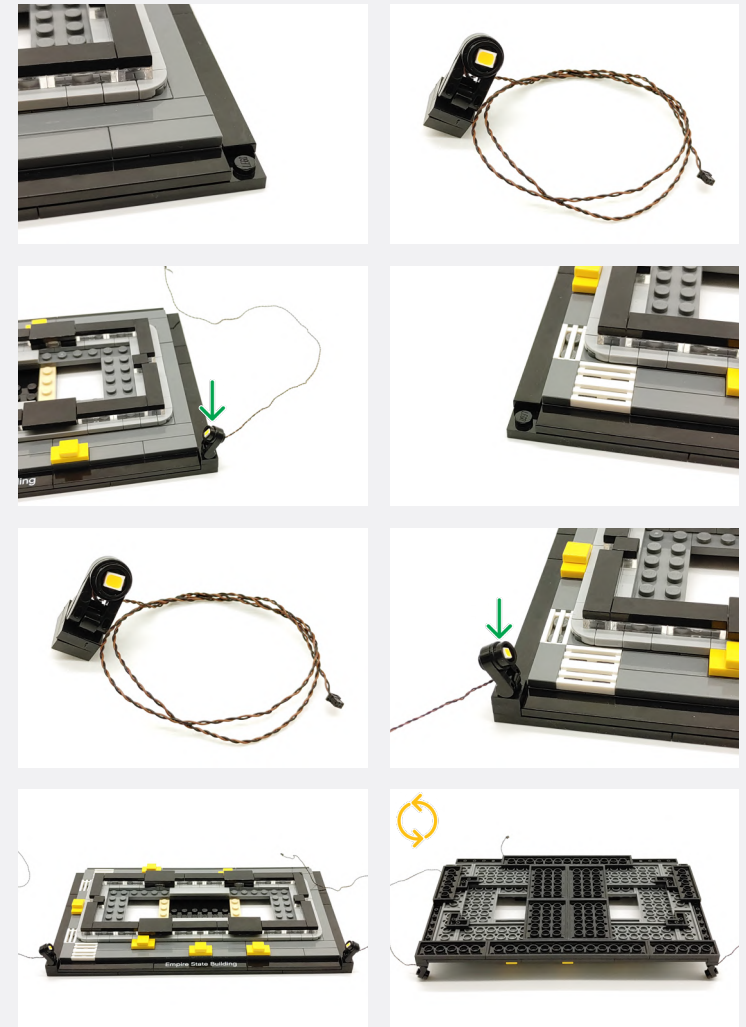
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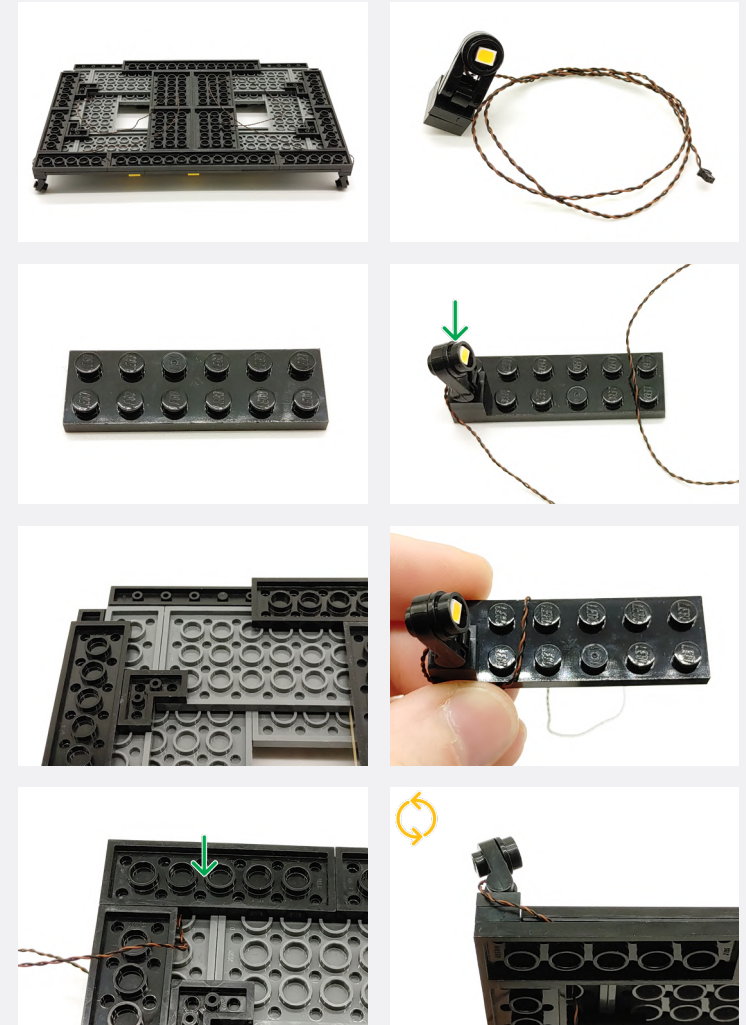
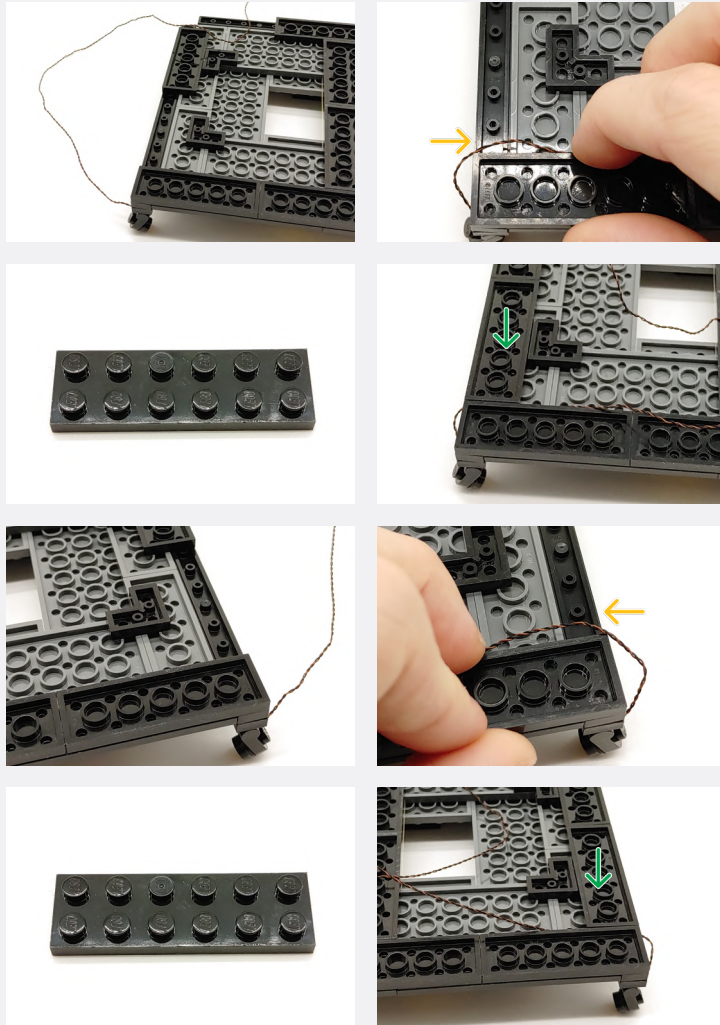
**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON



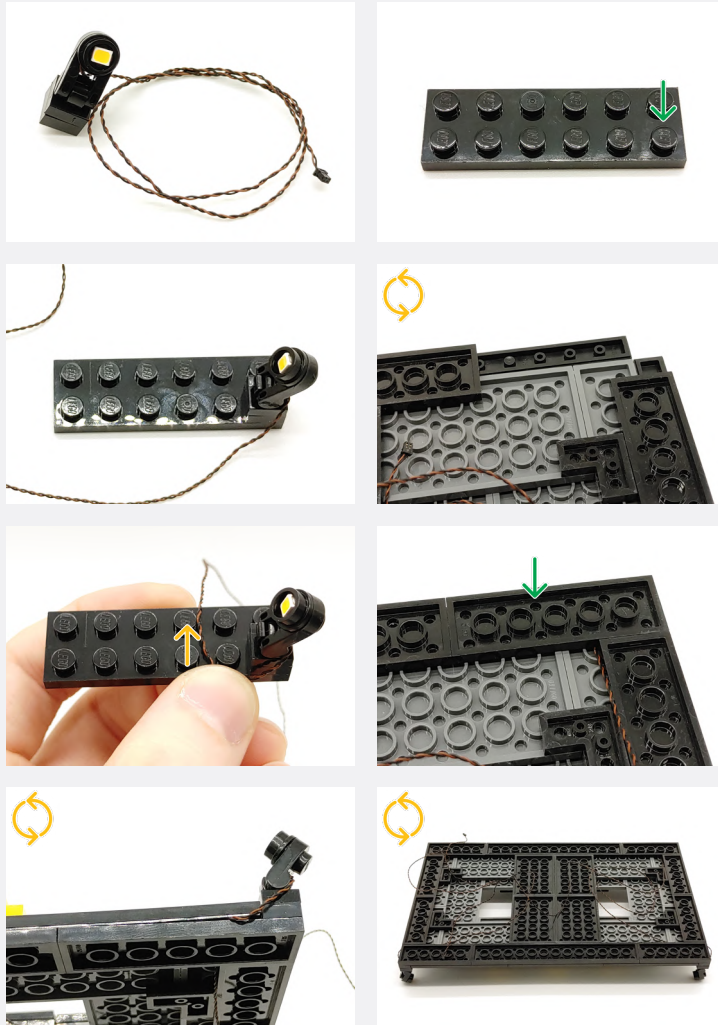
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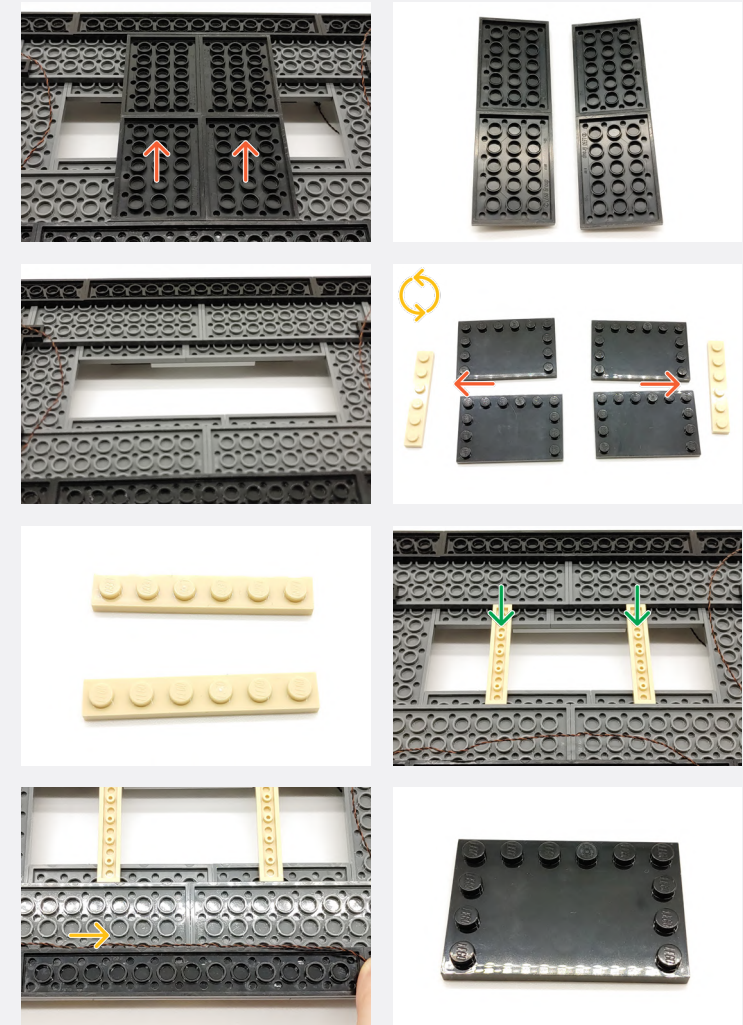
**Legend**    → DISCONNECT    → CONNECT / RECONNECT    ↻ TURN / FLIP    → DIRECTIONAL    ↻ TWIST / BRAID    ✨ POWER ON TEST    📝 NOTE ICON



**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID ✨ POWER ON TEST 📝 NOTE ICON

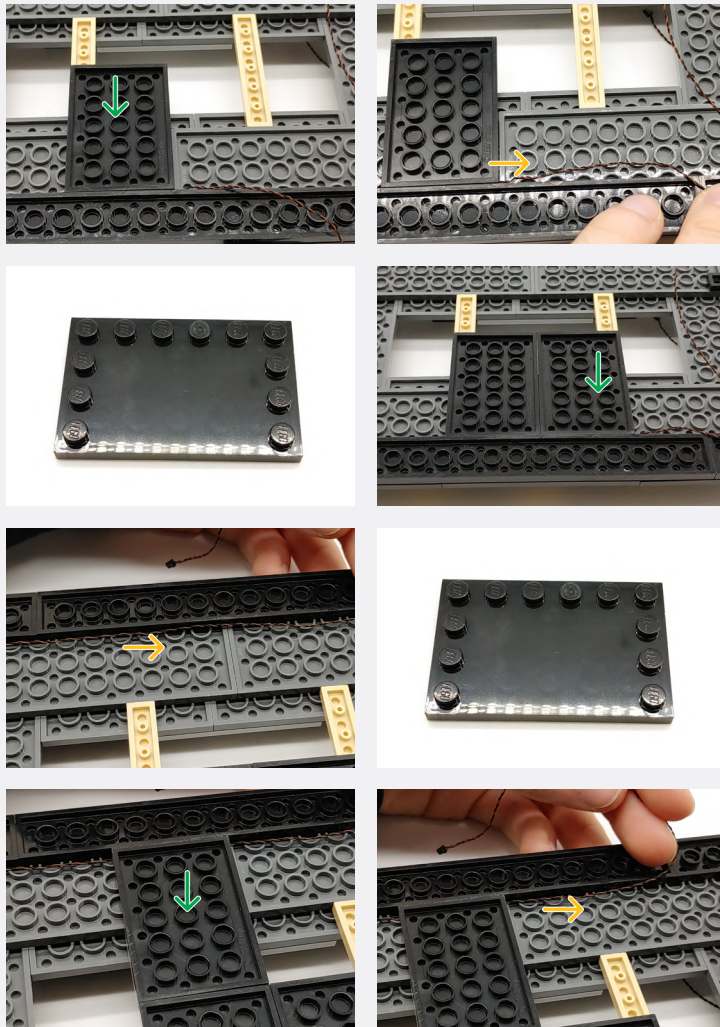


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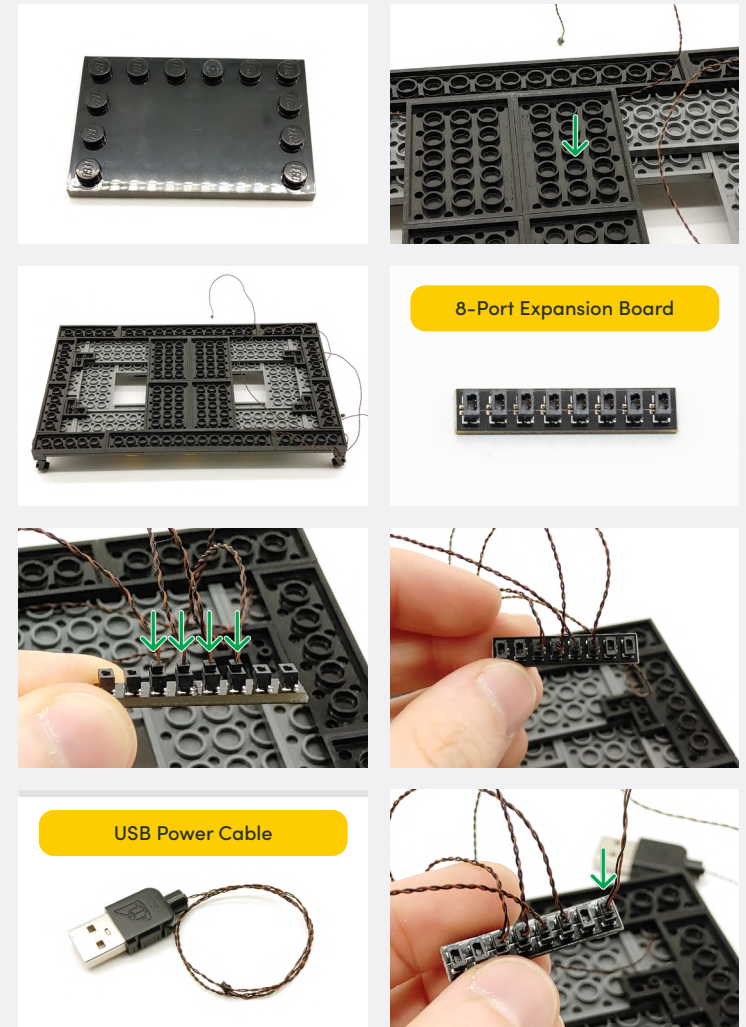


**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON





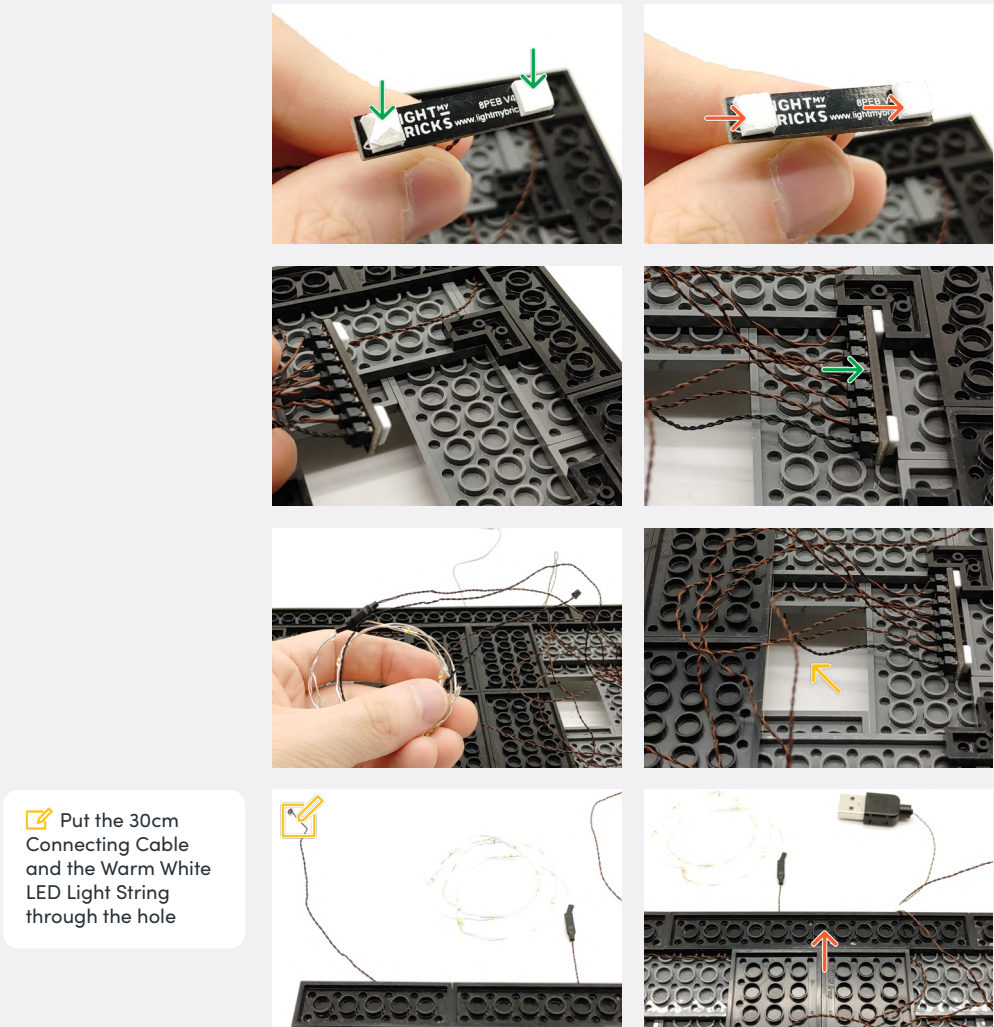
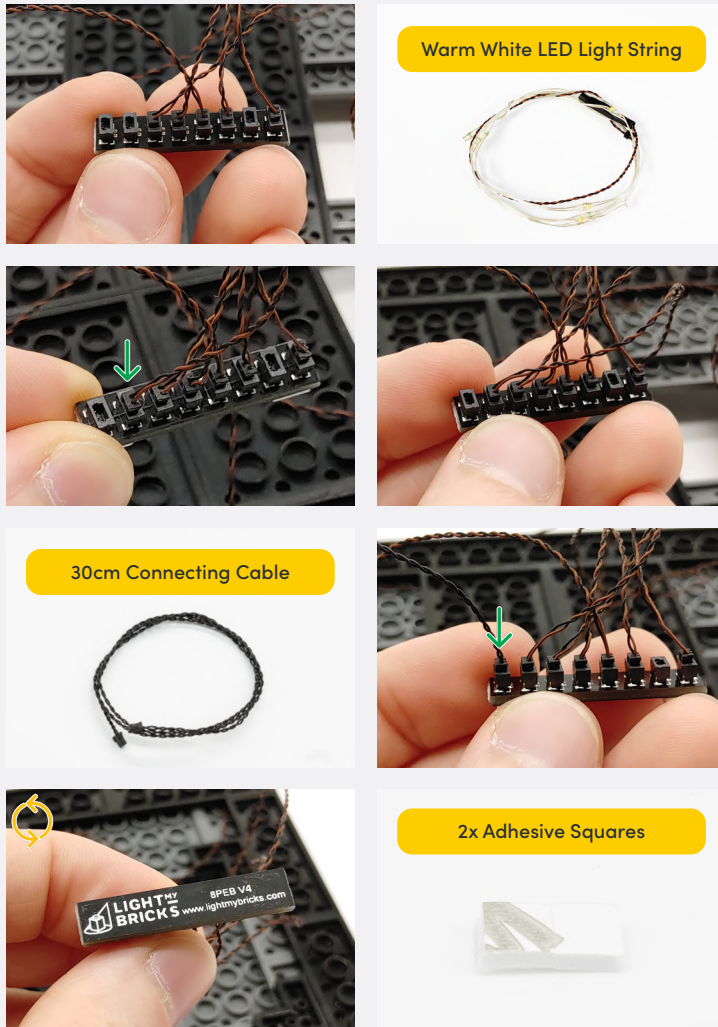
7



8-Port Expansion Board

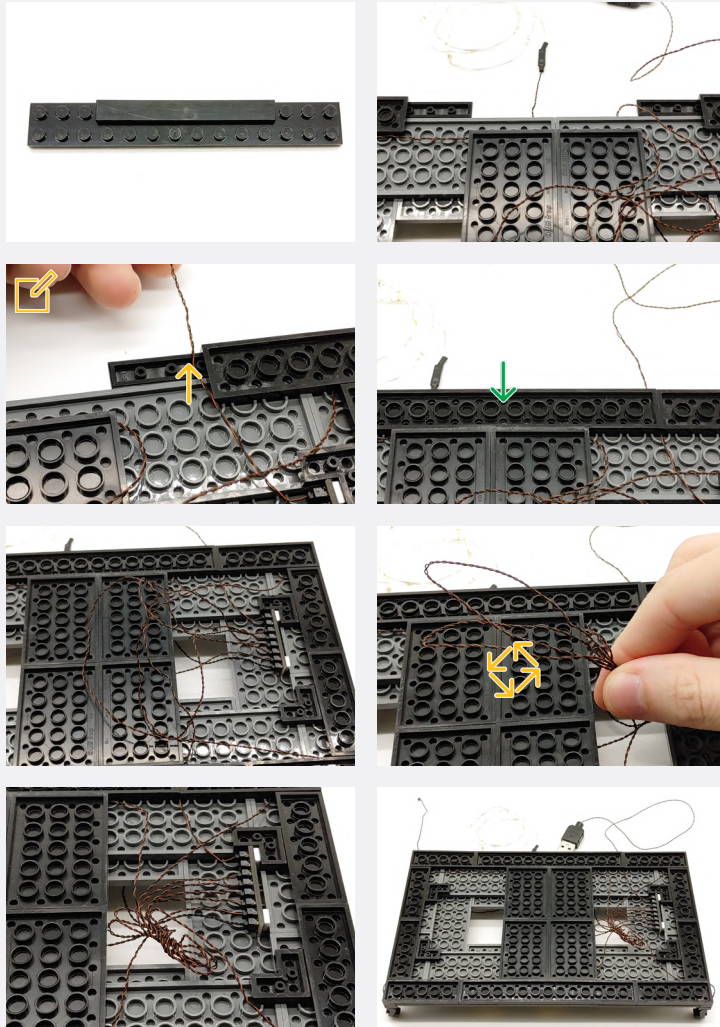
USB Power Cable

**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON



**Legend**

- DISCONNECT
- CONNECT / RECONNECT
- TURN / FLIP
- DIRECTIONAL
- TWIST / BRAID
- POWER ON TEST
- NOTE ICON



Grab the wire from the USB Power Cable

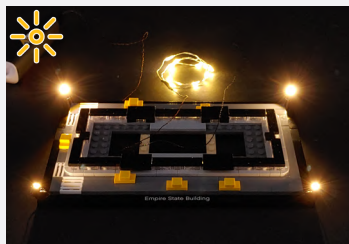
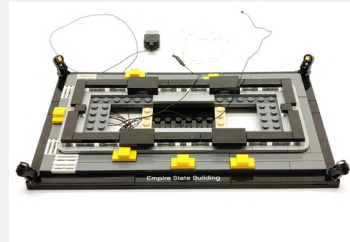
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Legend

- DISCONNECT
- CONNECT / RECONNECT
- TURN / FLIP
- DIRECTIONAL
- TWIST / BRAID
- POWER ON TEST
- NOTE ICON

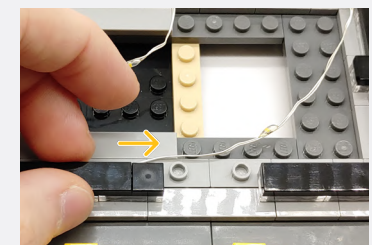
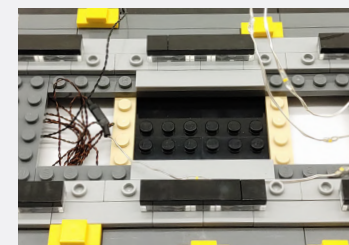
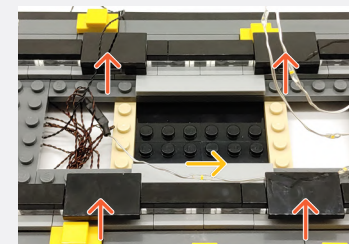
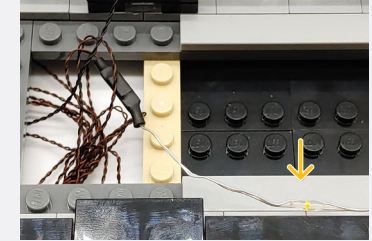
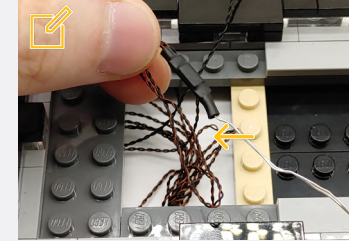
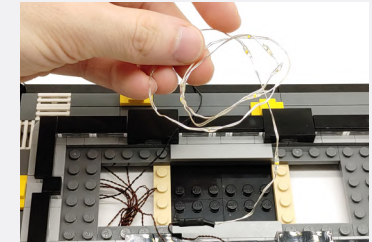
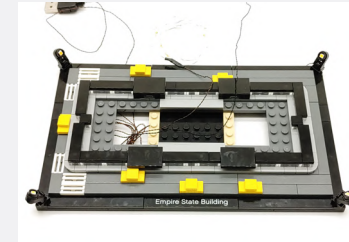
If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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



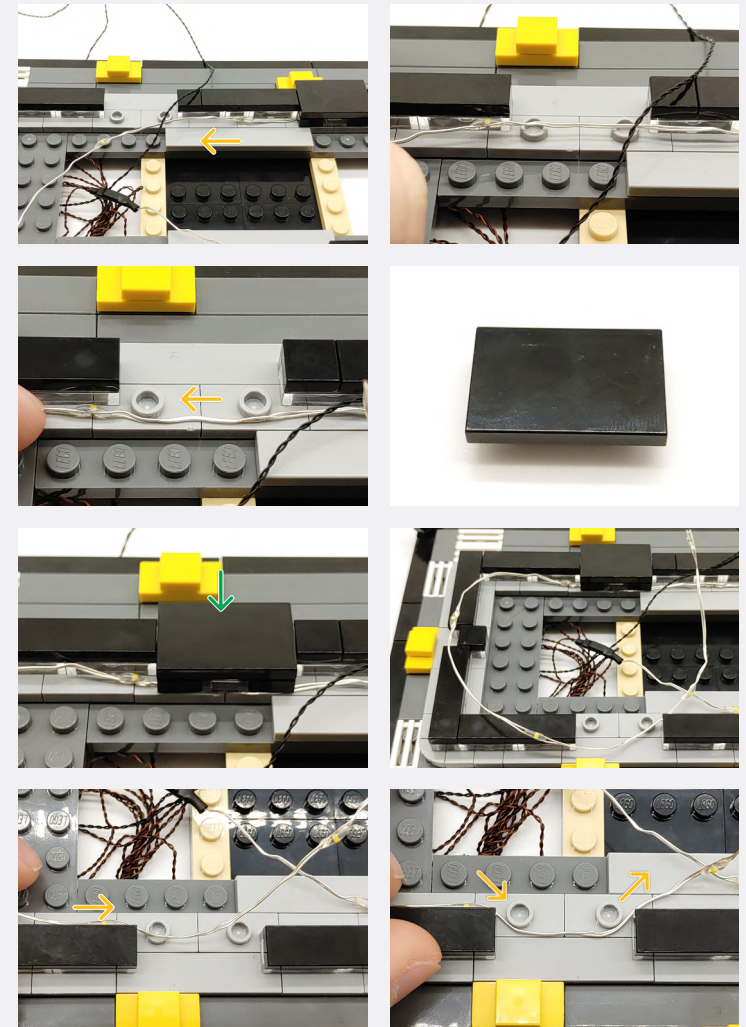
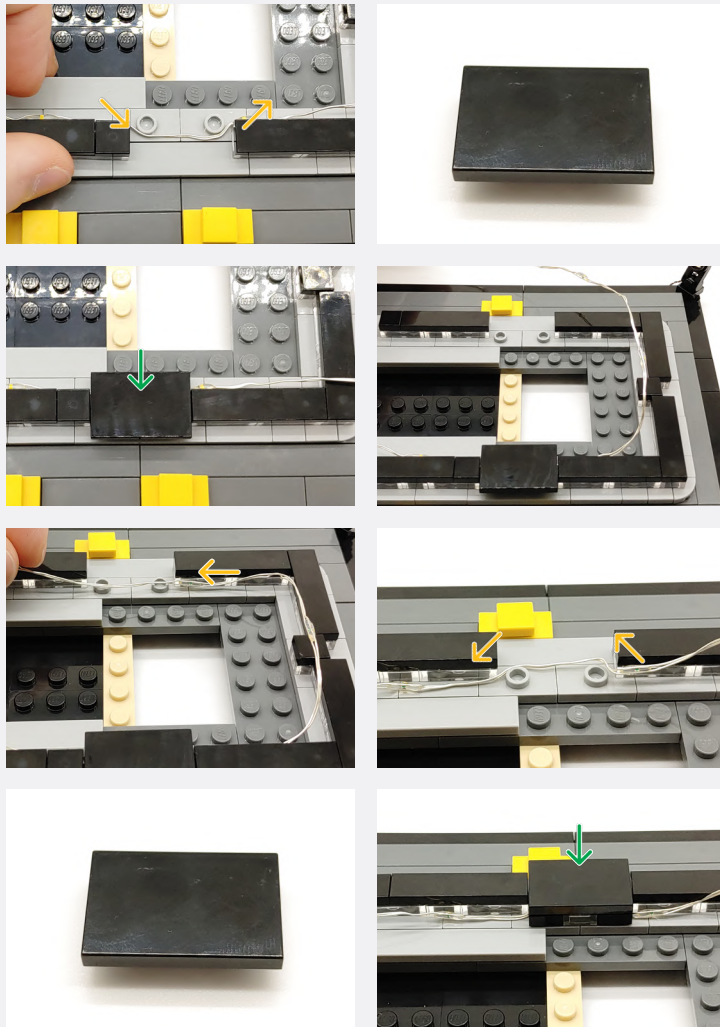
Connect the other end to a USB Power Bank, USB Wall Adaptor, or USB to AA Battery Pack (sold separately)

# 9

Ensure the large black section of the LED Light String is in the open space

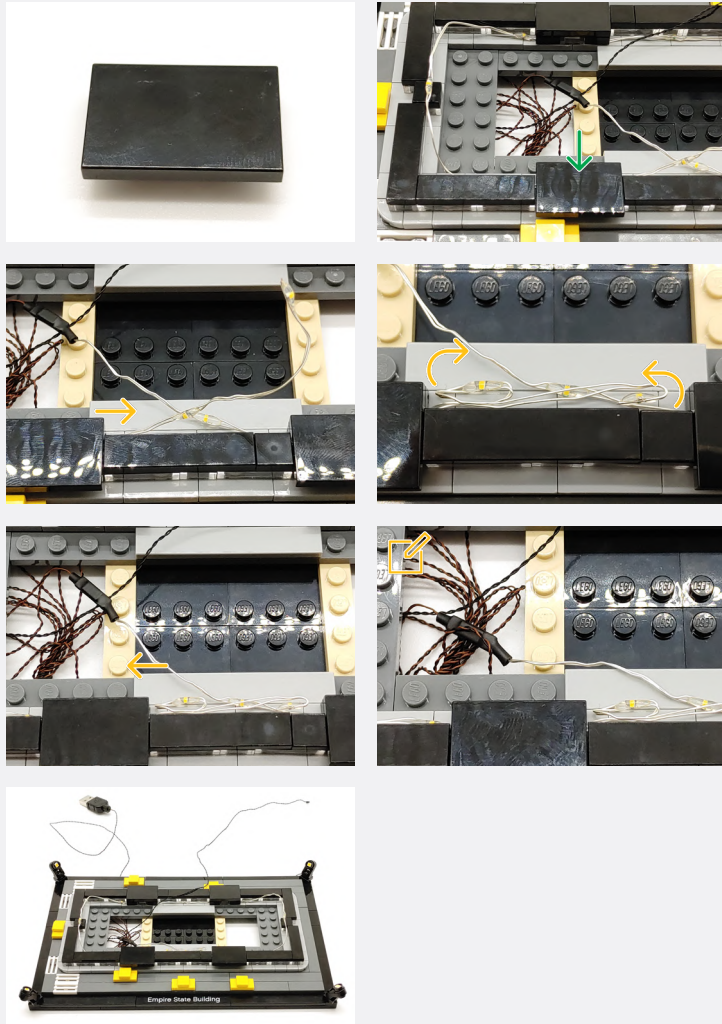


**Legend**   DISCONNECT   CONNECT / RECONNECT   TURN / FLIP   DIRECTIONAL   TWIST / BRAID   POWER ON TEST   NOTE ICON



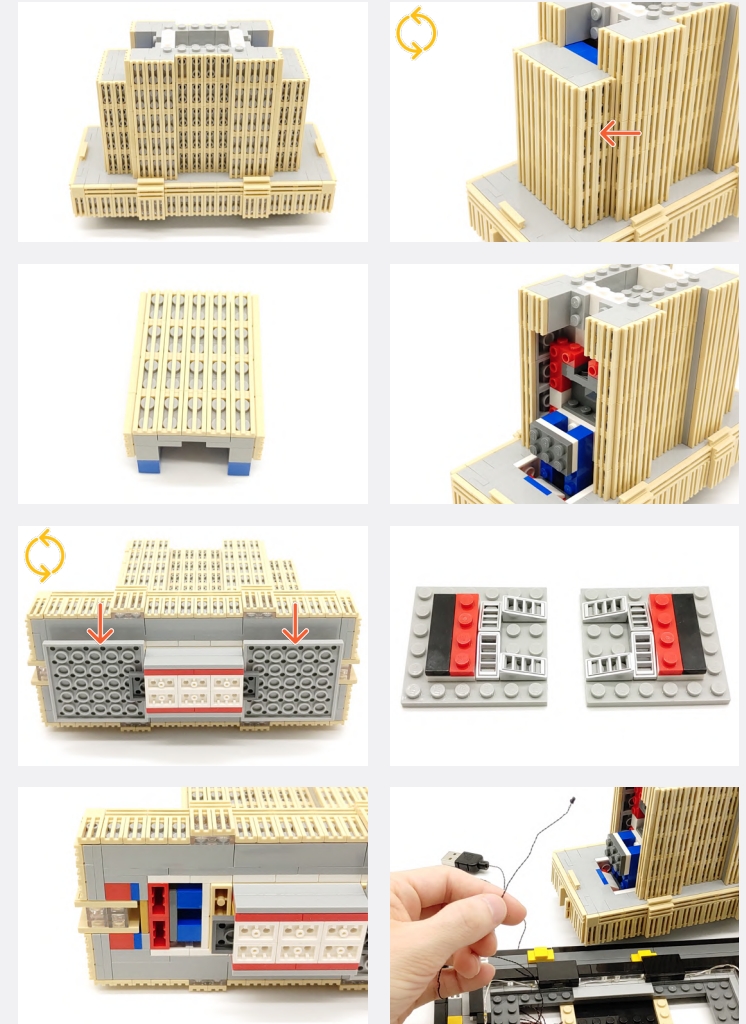
**Legend**

- DISCONNECT
- CONNECT / RECONNECT
- TURN / FLIP
- DIRECTIONAL
- TWIST / BRAID
- POWER ON TEST
- NOTE ICON

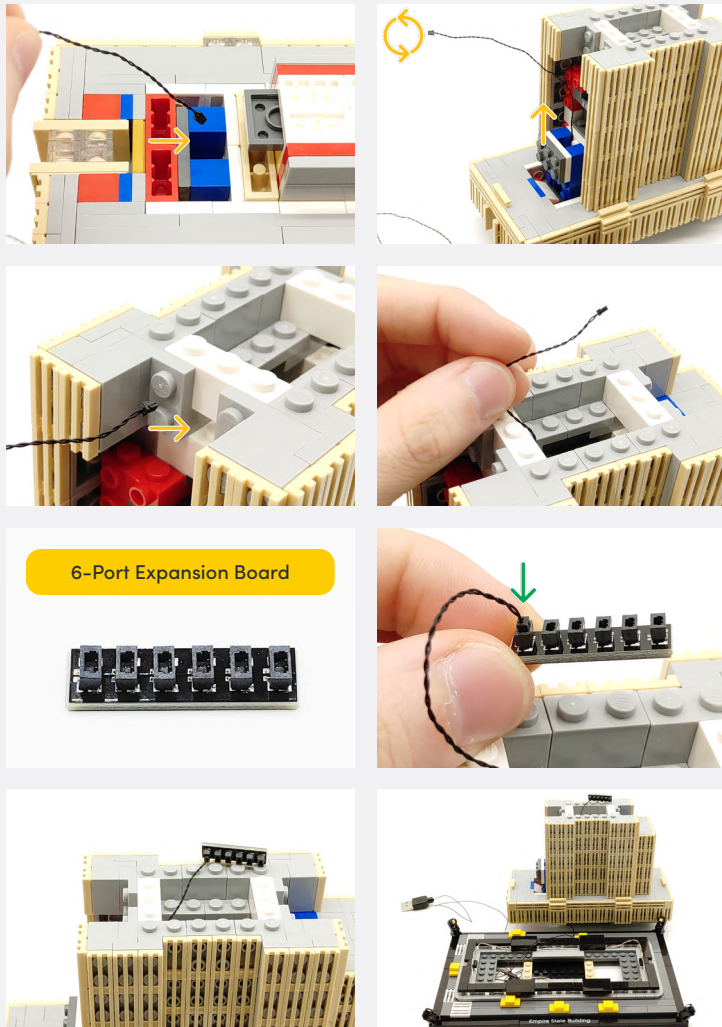


Ensure LED Light String wire is to the bottom of the cream coloured brick

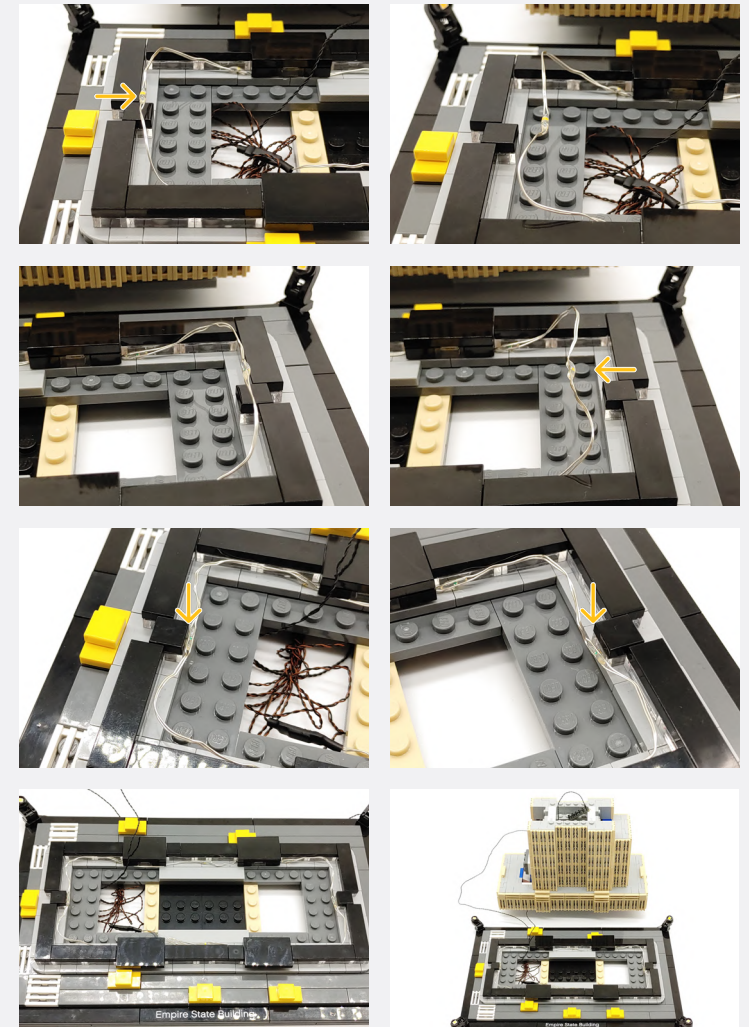
10



Legend DISCONNECT CONNECT / RECONNECT TURN / FLIP DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

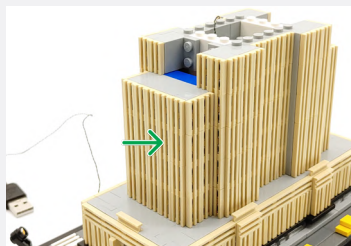
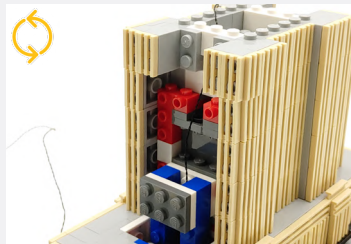
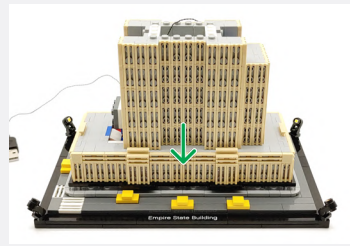
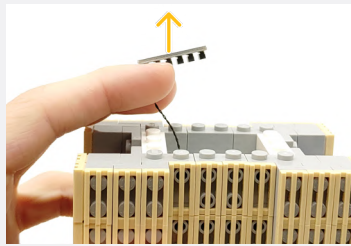


**11**



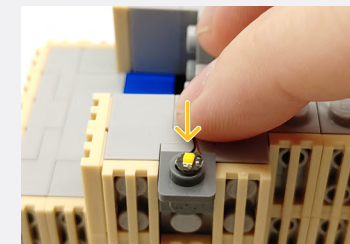
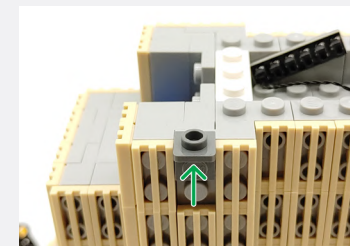
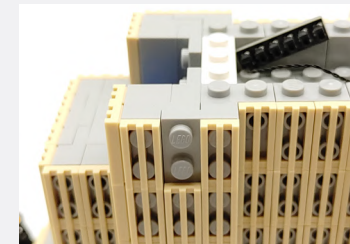
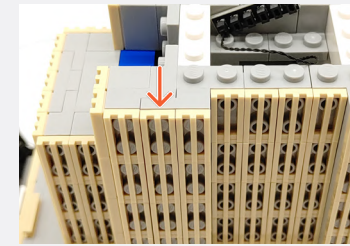
**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON

📌 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.



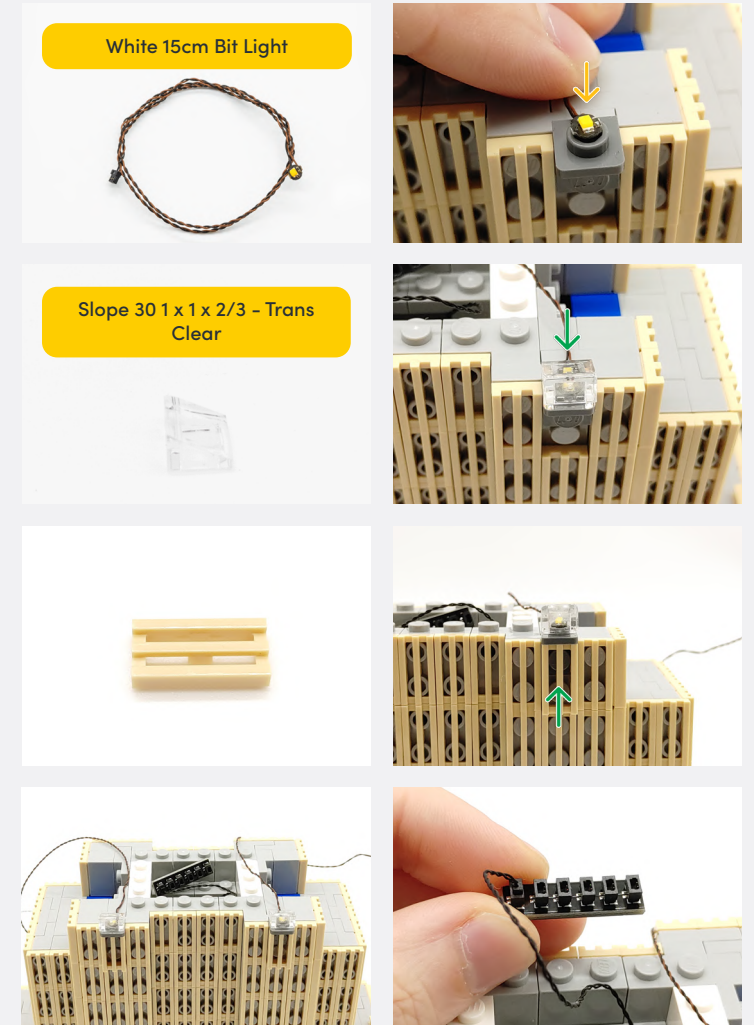
📌 Connect the other end to a USB Power Bank, USB Wall Adaptor, or USB to AA Battery Pack (sold separately)

# 12



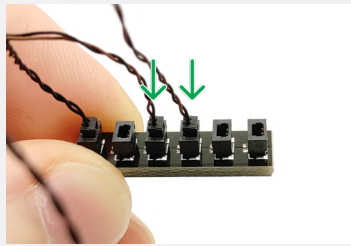
**Legend**    → DISCONNECT    → CONNECT / RECONNECT    ↻ TURN / FLIP    → DIRECTIONAL    ↻ TWIST / BRAID    ✨ POWER ON TEST    📌 NOTE ICON



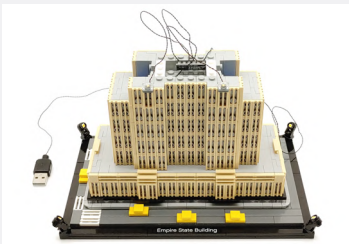
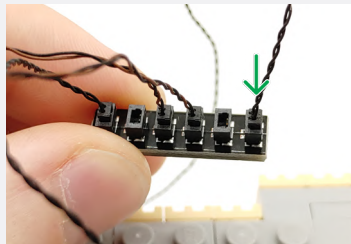


**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↺ TWIST / BRAID ✨ POWER ON TEST 📝 NOTE ICON

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.



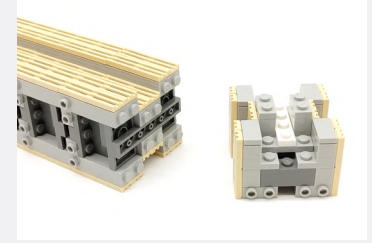
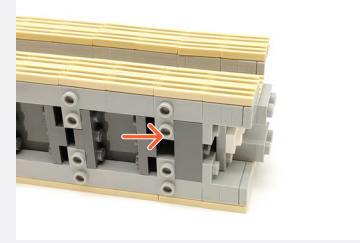
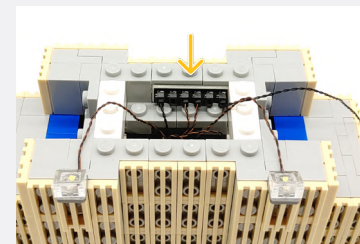
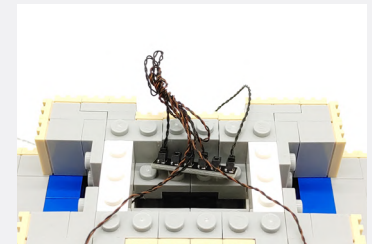
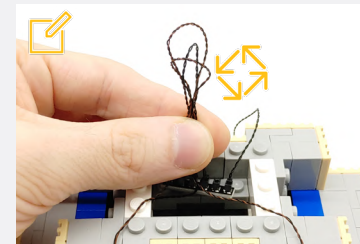
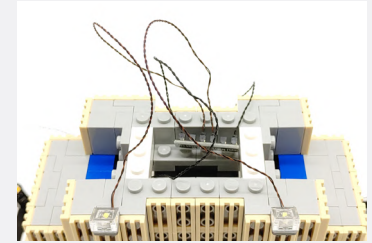
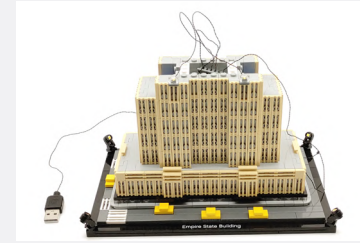
30cm Connecting Cable



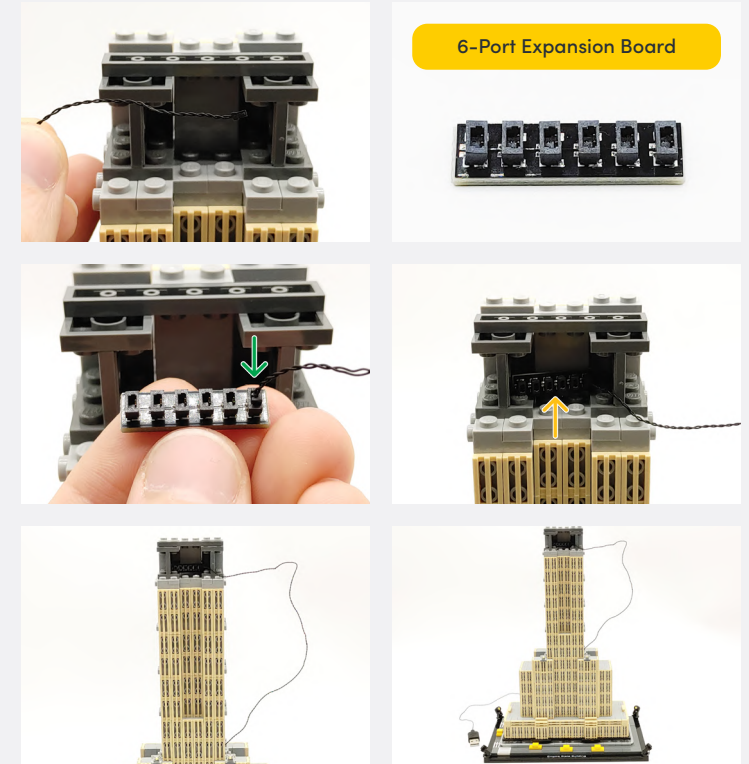
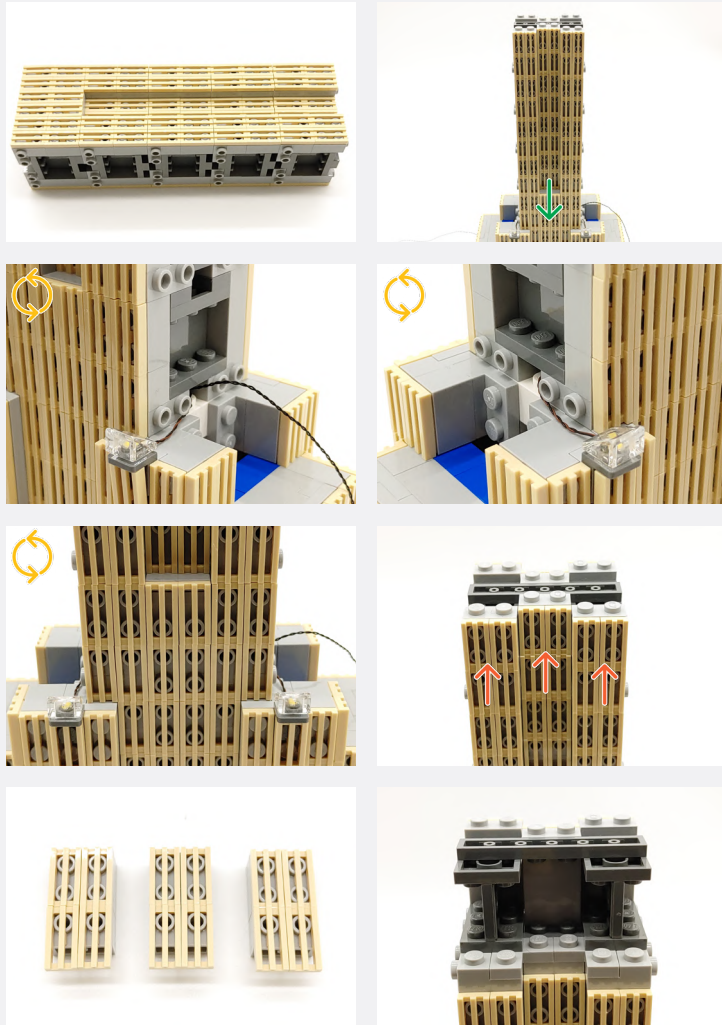
Connect the other end to a USB Power Bank, USB Wall Adaptor, or USB to AA Battery Pack (sold separately)

13

Exclude the 30cm connecting cable from twisting

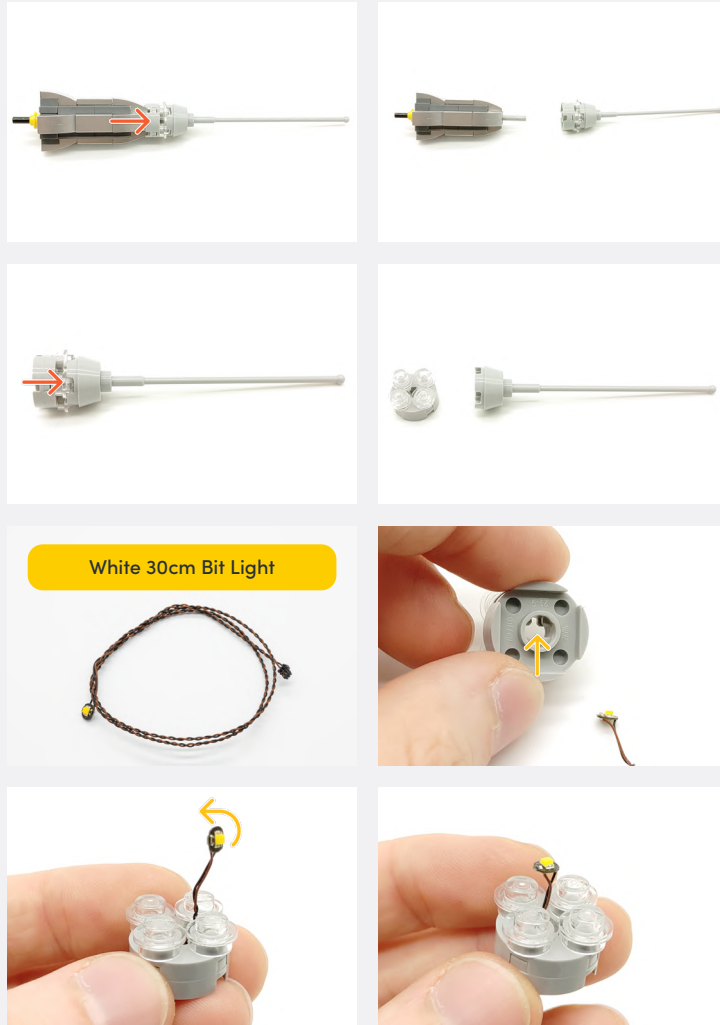


Legend DISCONNECT CONNECT / RECONNECT TURN / FLIP DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

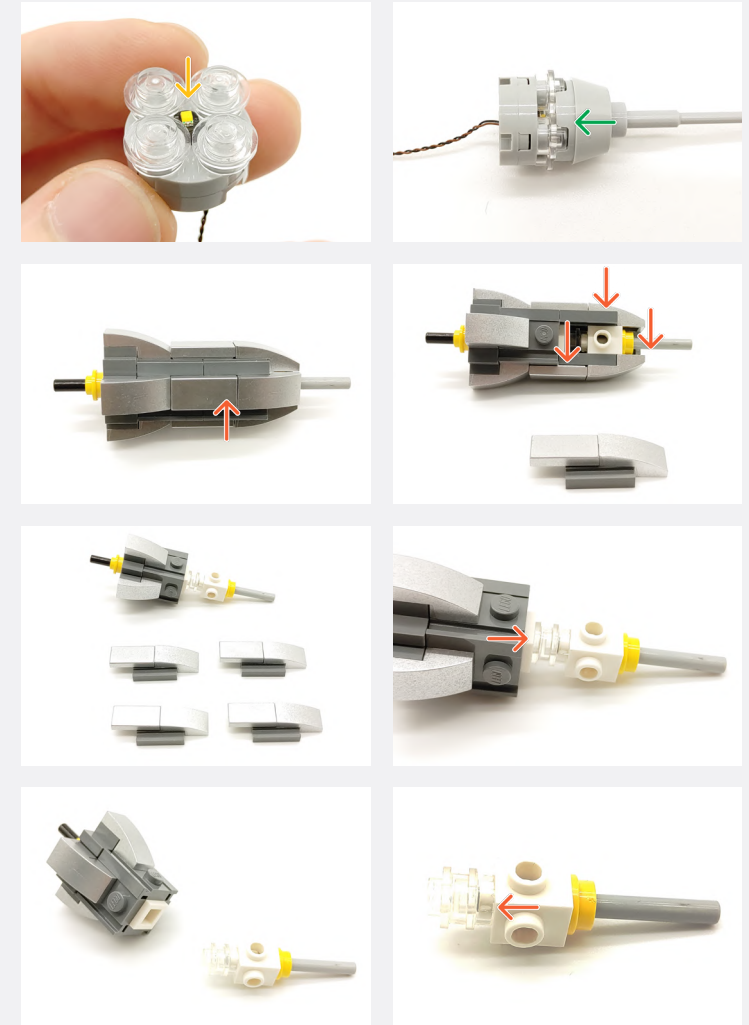


**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON

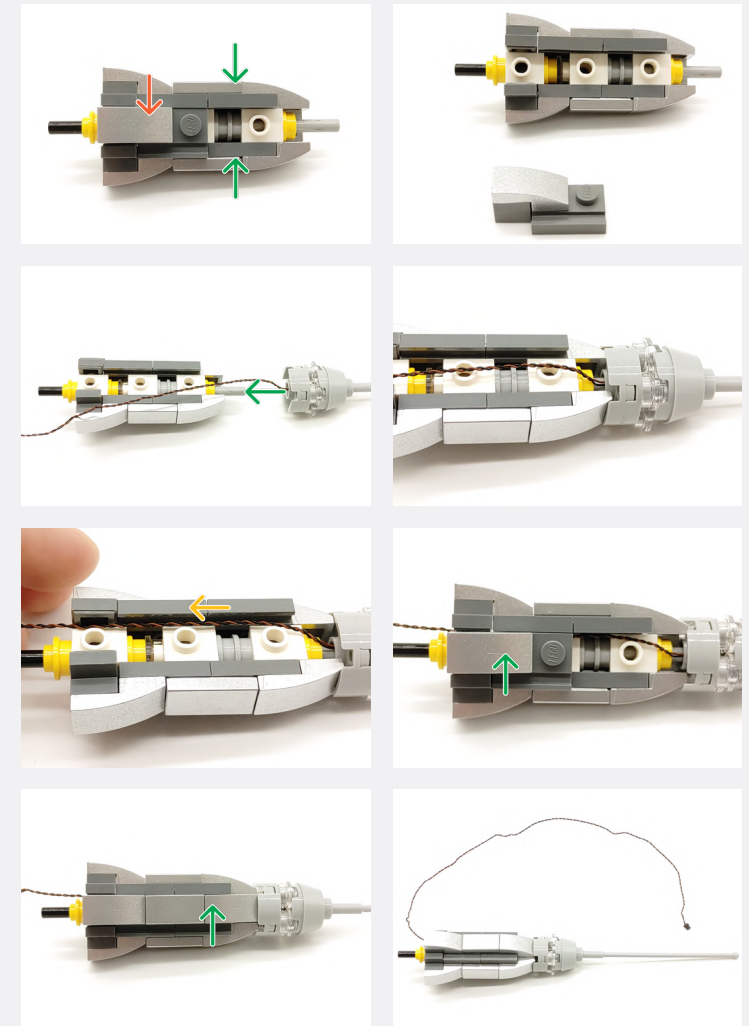
14



White 30cm Bit Light



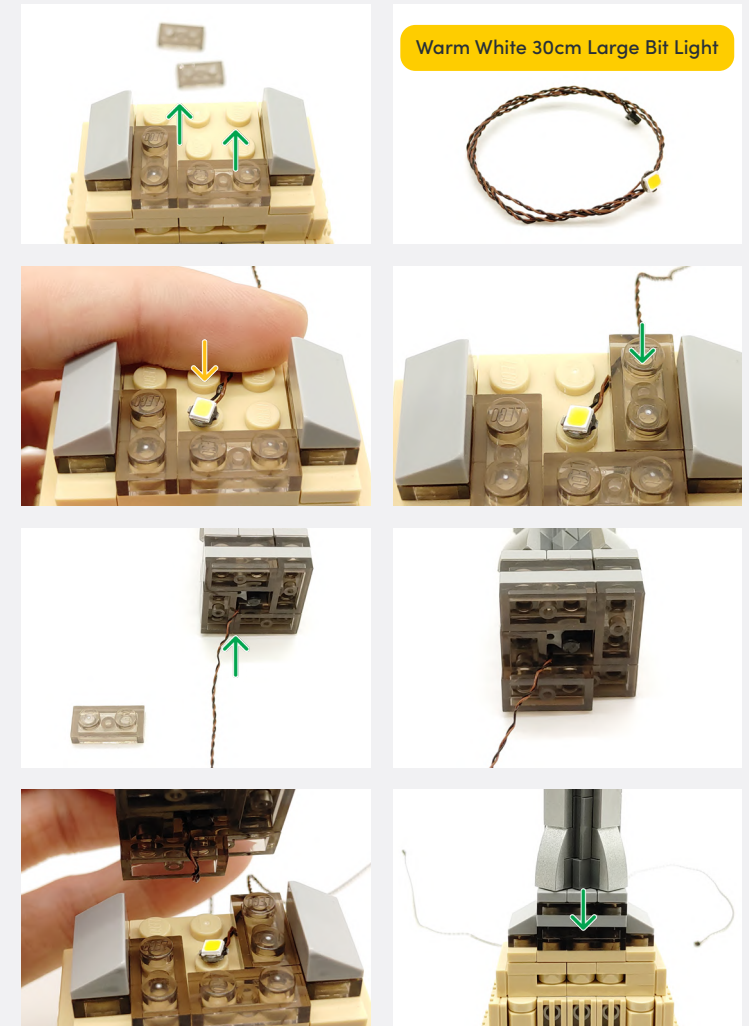
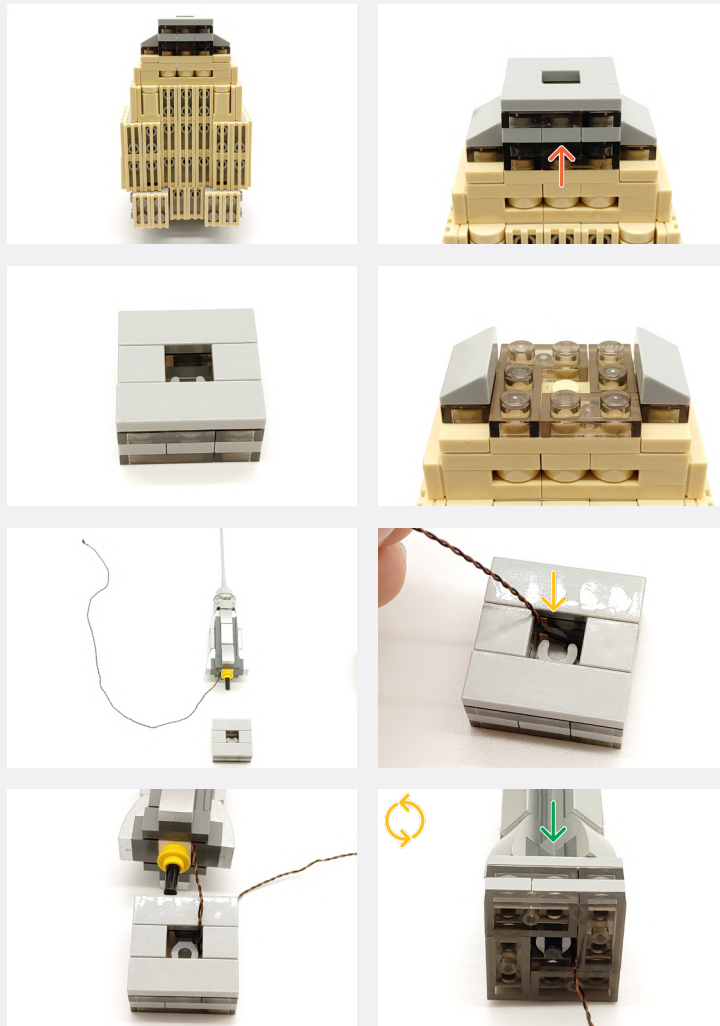
**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↺ TWIST / BRAID ✨ POWER ON TEST 📝 NOTE ICON



**Legend**

- DISCONNECT
- CONNECT / RECONNECT
- TURN / FLIP
- DIRECTIONAL
- TWIST / BRAID
- POWER ON TEST
- NOTE ICON

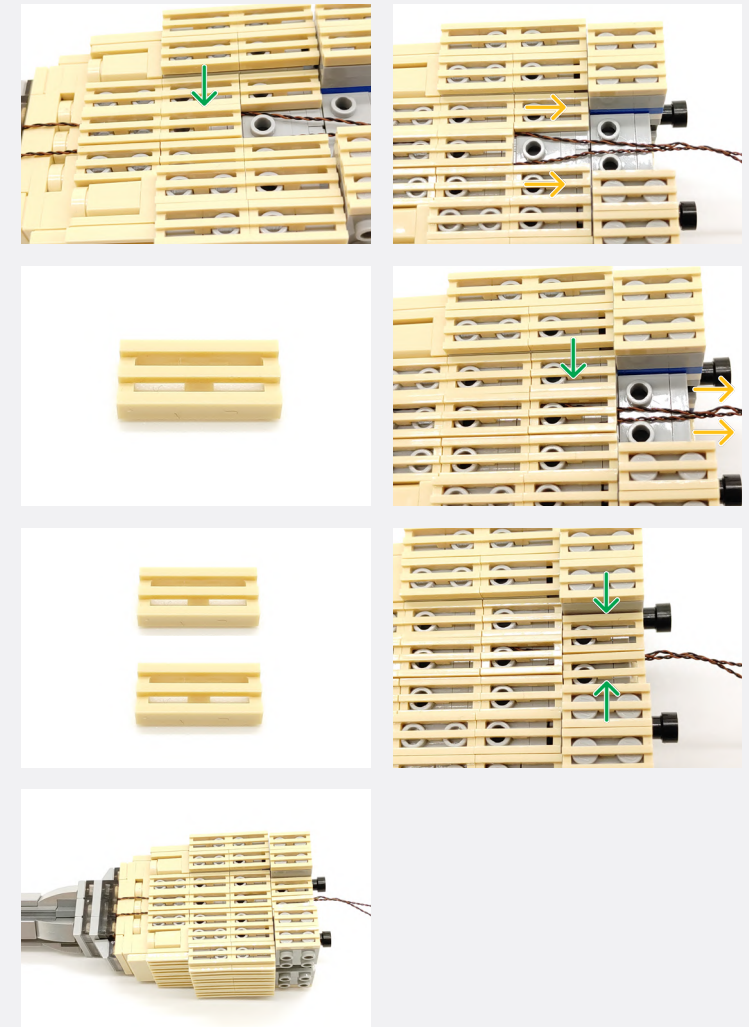
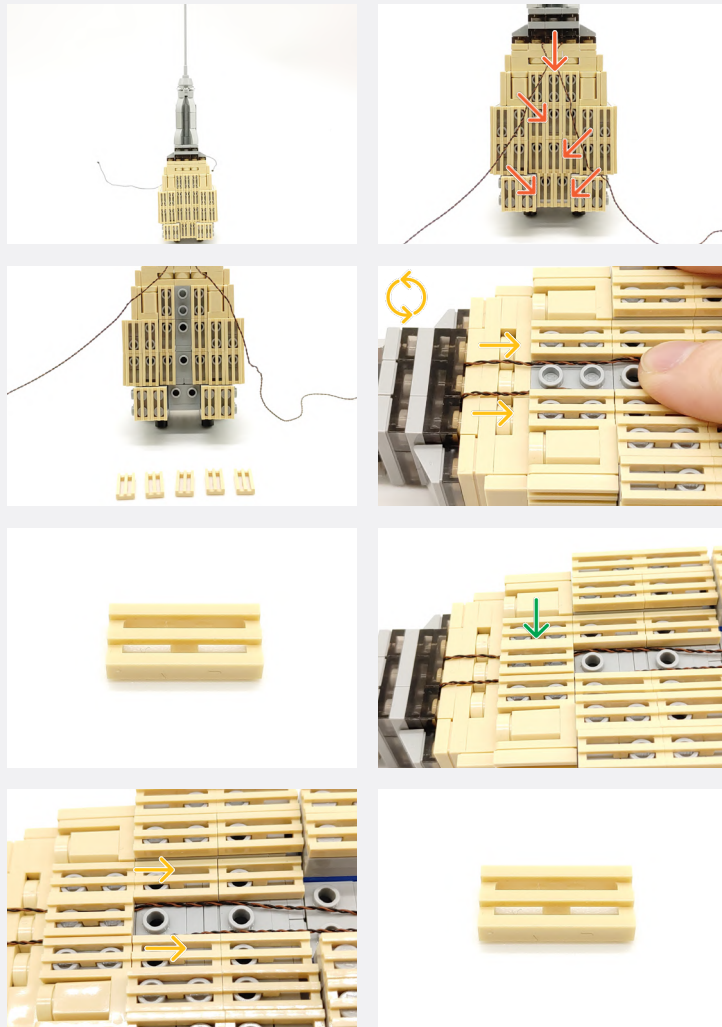
15



**Legend**

- DISCONNECT
- CONNECT / RECONNECT
- ↻ TURN / FLIP
- DIRECTIONAL
- ↔ TWIST / BRAID
- ✳ POWER ON TEST
- 📄 NOTE ICON

**16**



**Legend**    → DISCONNECT    → CONNECT / RECONNECT    ↻ TURN / FLIP    → DIRECTIONAL    ↻ TWIST / BRAID    ✨ POWER ON TEST    📝 NOTE ICON

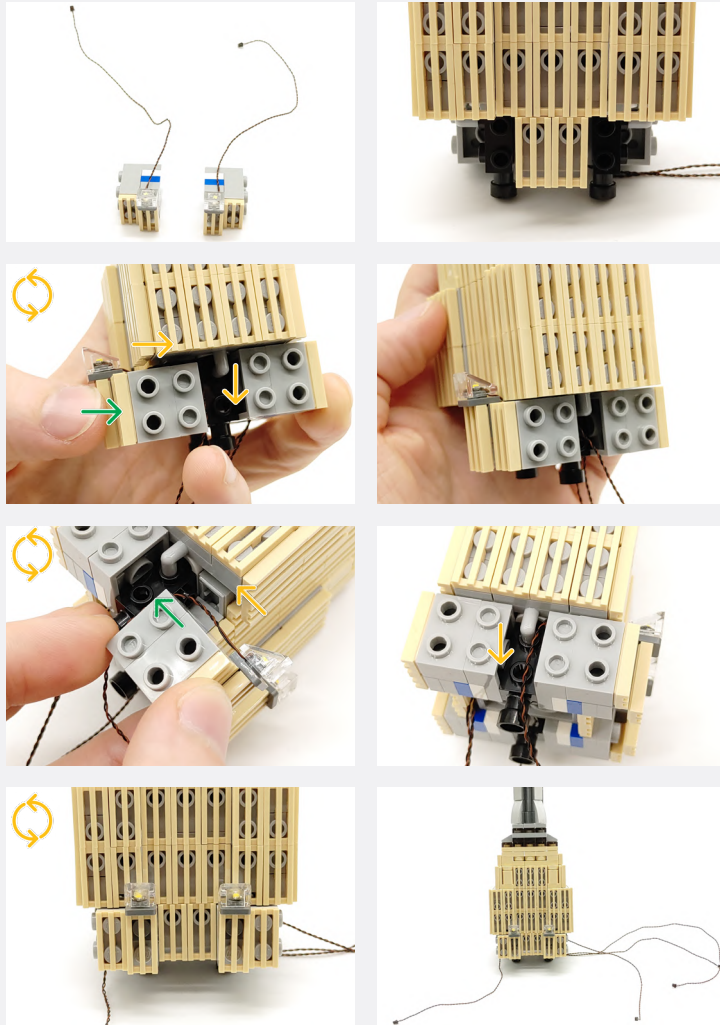
17

	<b>2x Bracket 1x1 - 1x1 Inverted - Dark Grey</b>	
	<b>White 15cm Bit Light</b>	

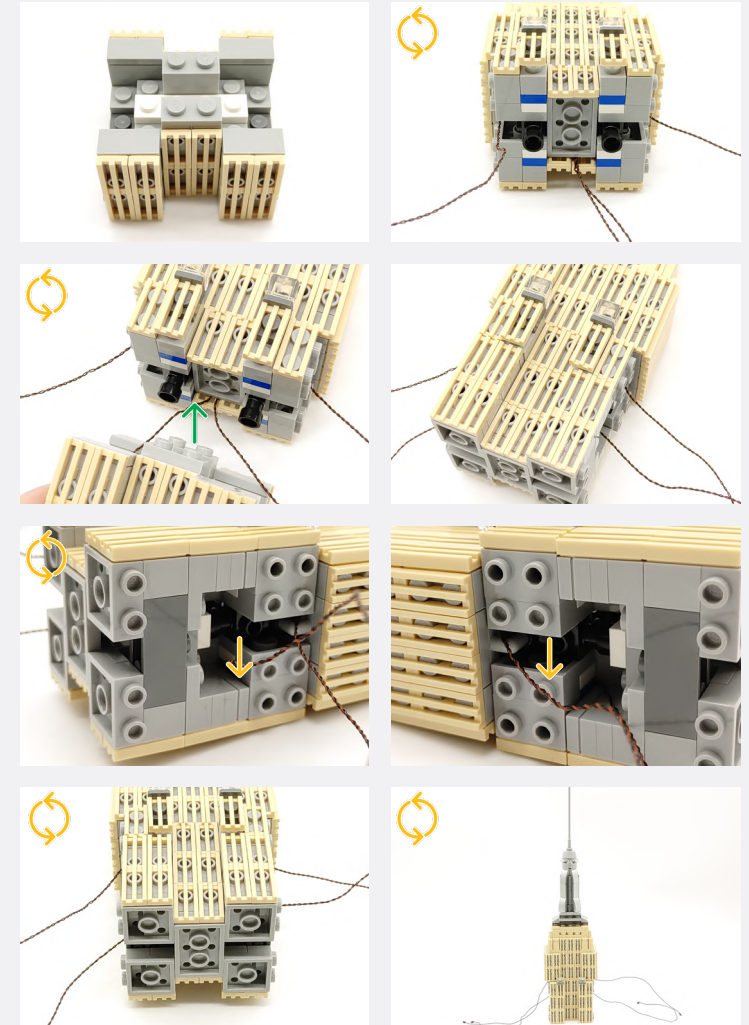
	<b>Slope 30 1 x 1 x 2/3 - Trans Clear</b>
	<b>White 15cm Bit Light</b>
	<b>Slope 30 1 x 1 x 2/3 - Trans Clear</b>

**Legend**    → DISCONNECT    → CONNECT / RECONNECT    ↻ TURN / FLIP    → DIRECTIONAL    ↻ TWIST / BRAID    ✨ POWER ON TEST    📝 NOTE ICON





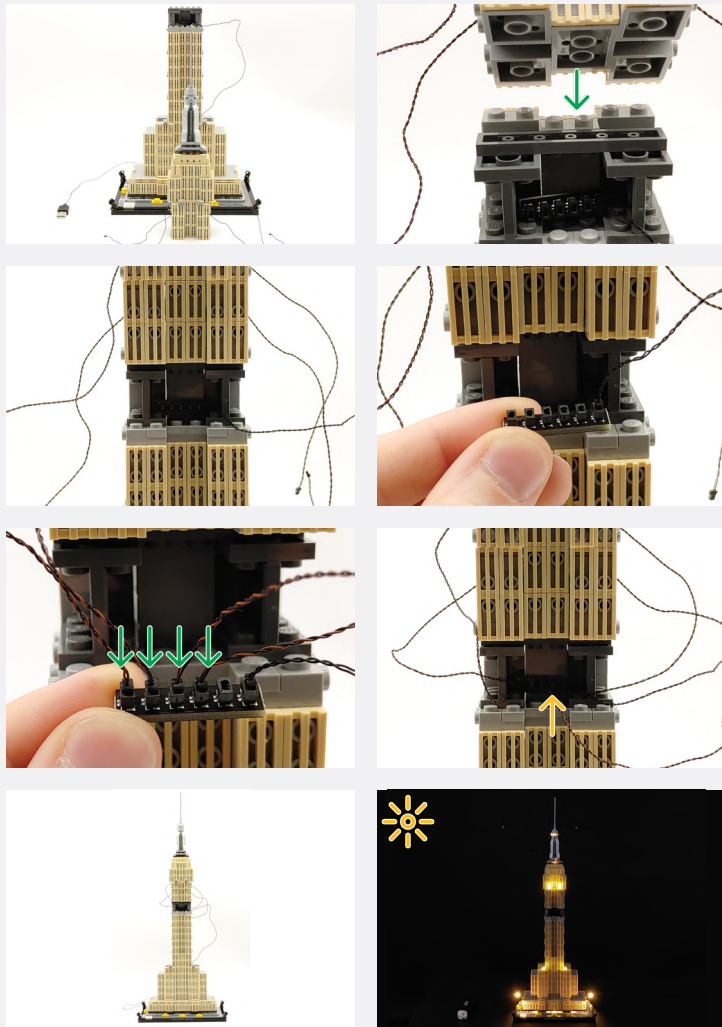
**18**



**Legend**    → DISCONNECT    → CONNECT / RECONNECT    ↻ TURN / FLIP    → DIRECTIONAL    ↻ TWIST / BRAID    ✨ POWER ON TEST    📝 NOTE ICON

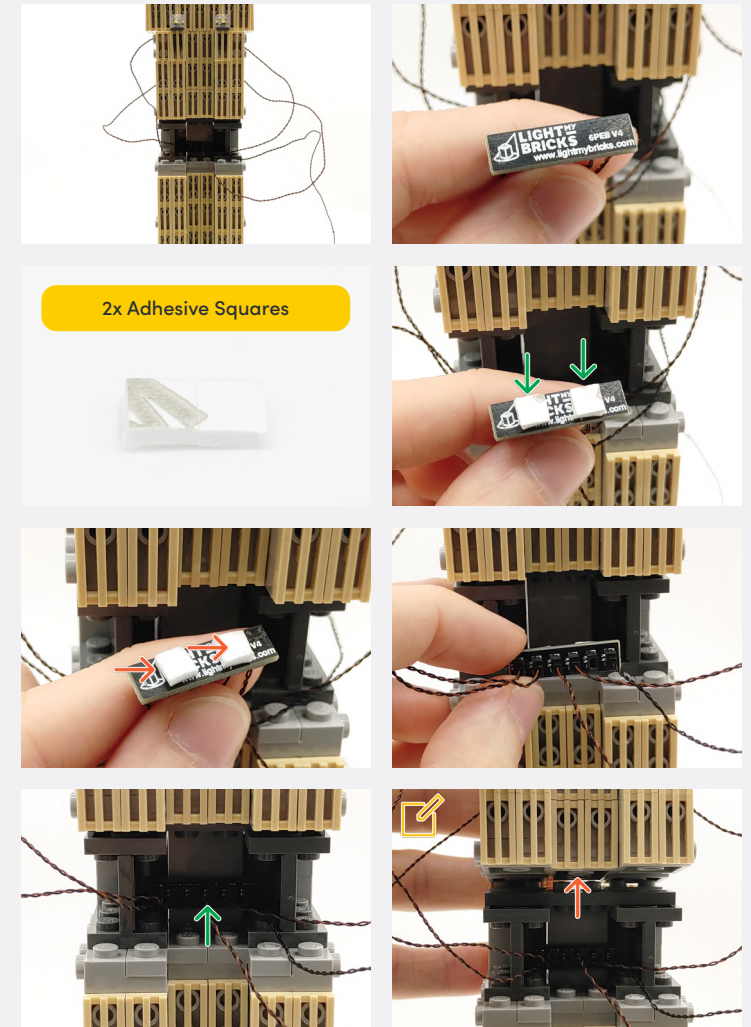
If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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

19



Connect the other end to a USB Power Bank, USB Wall Adaptor, or USB to AA Battery Pack (sold separately)

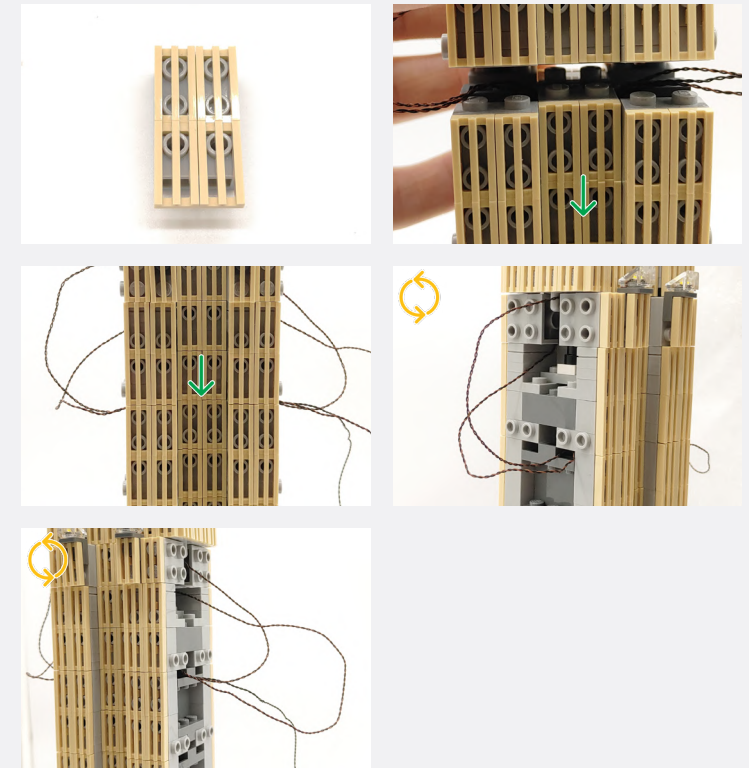
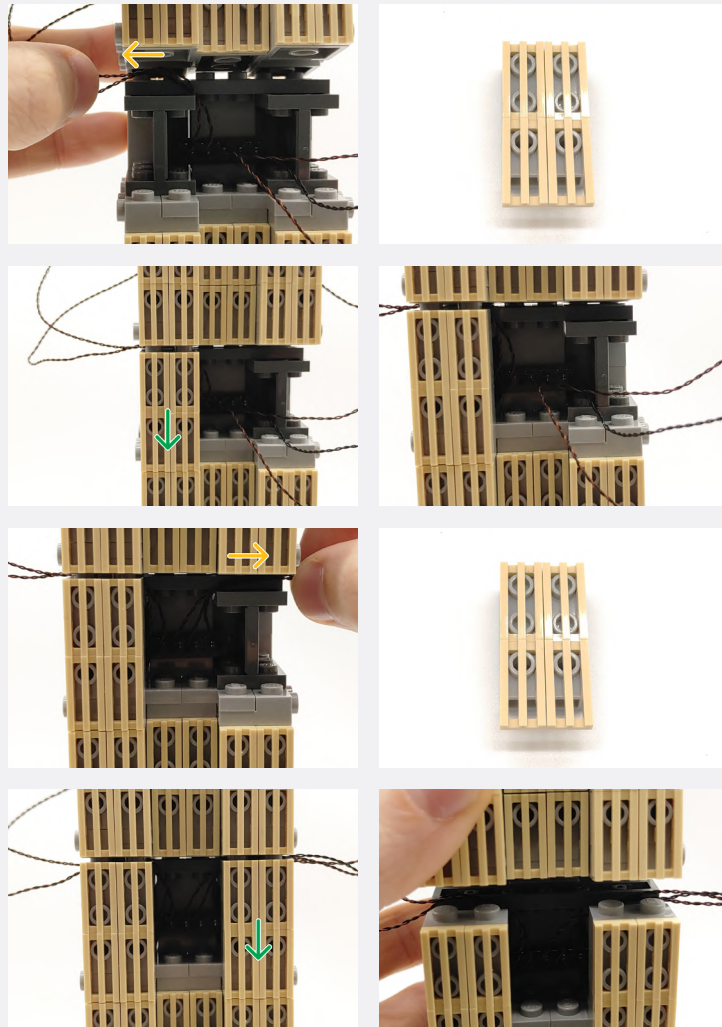
20



Partially lift up the upper tower enough to replace the missing parts.

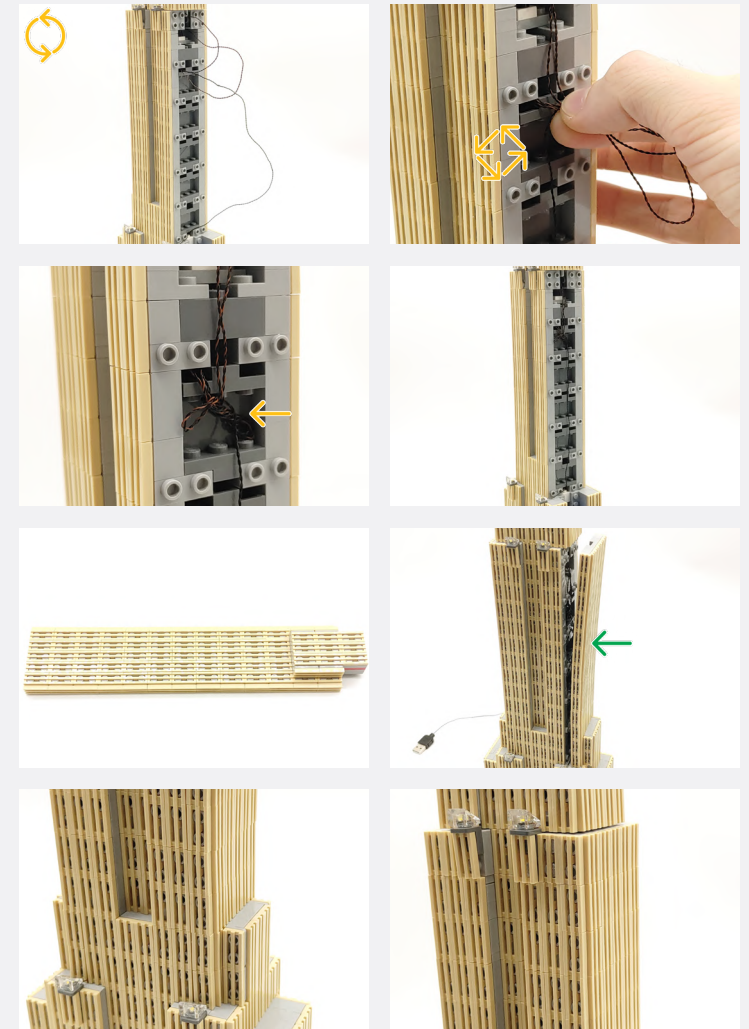
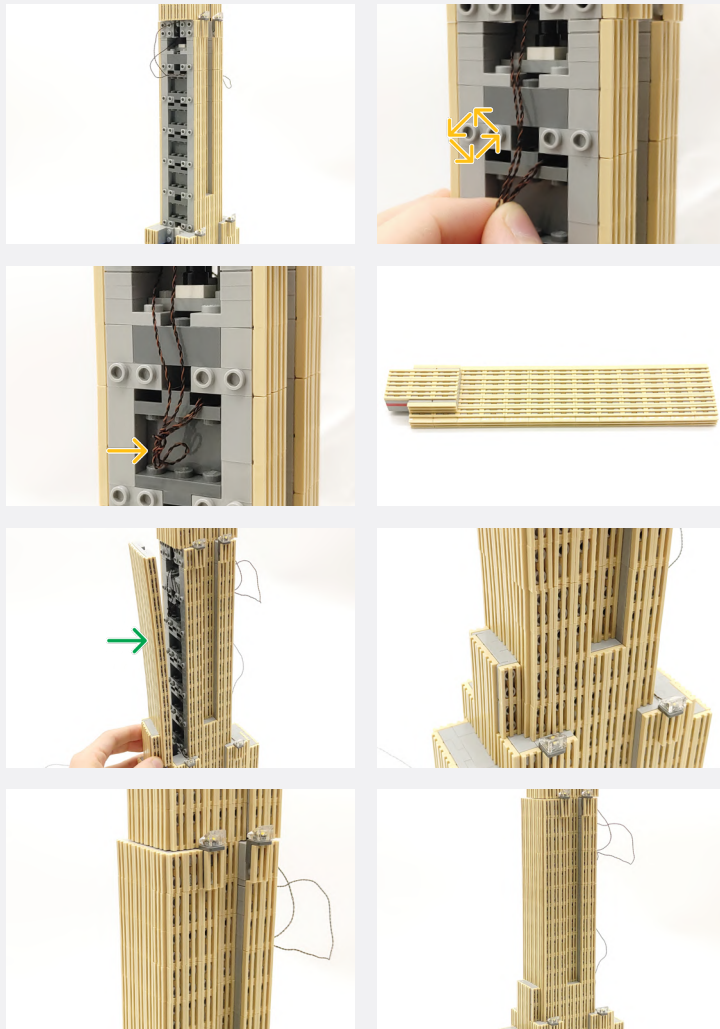
Legend

- DISCONNECT
- CONNECT / RECONNECT
- TURN / FLIP
- DIRECTIONAL
- TWIST / BRAID
- POWER ON TEST
- NOTE ICON



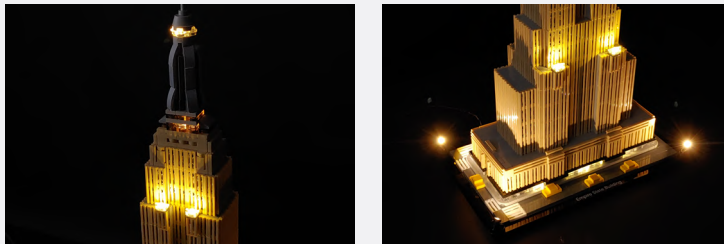
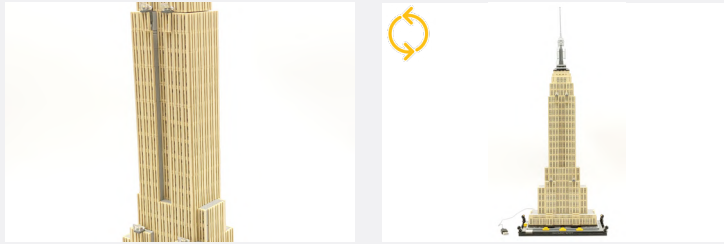
**Legend**    → DISCONNECT    → CONNECT / RECONNECT    ↻ TURN / FLIP    → DIRECTIONAL    ↻ TWIST / BRAID    ✨ POWER ON TEST    📝 NOTE ICON

21



**Legend**    → DISCONNECT    → CONNECT / RECONNECT    ↻ TURN / FLIP    → DIRECTIONAL    ↔ TWIST / BRAID    ✨ POWER ON TEST    📝 NOTE ICON

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.



Connect the other end to a USB Power Bank, USB Wall Adaptor, or USB to AA Battery Pack (sold separately)

**Legend**   DISCONNECT   CONNECT / RECONNECT   TURN / FLIP   DIRECTIONAL   TWIST / BRAID   POWER ON TEST   NOTE ICON

## FINAL PRODUCT

This finally completes installation of the Light My Bricks Empire State Building 21046 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 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.**

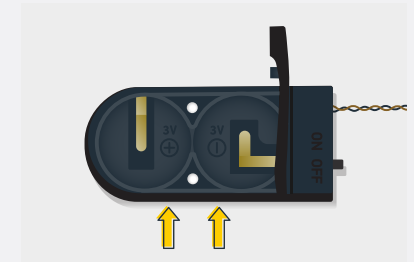
**If the batteries have no power, replace the batteries.**

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

### Check For CR2032 Batteries Using The Flat Battery Pack

Inside the battery pack is a symbol indicating which side the (round) CR2032 battery should be inserted. Check that the “+” side of the battery pack has the battery with the “+” symbol facing downwards.

On the opposite side, the “-” side of the battery pack should have the battery flipped upside down, that is the “+” symbol facing upwards.

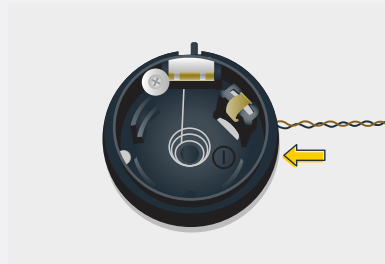




## Troubleshooting

### Check For Cr2032 Batteries Using The Round Battery Pack

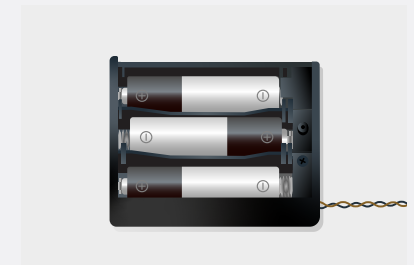
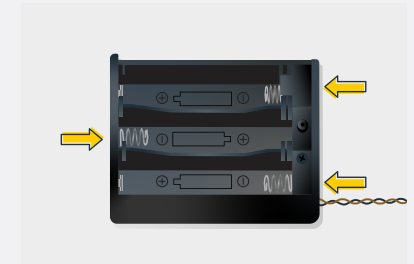
Inside the battery pack is a symbol indicating which side the (round) CR2032 battery should be inserted. In this case, for the stacked battery pack, ensure that BOTH batteries have the “+” symbol facing upwards.



### 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

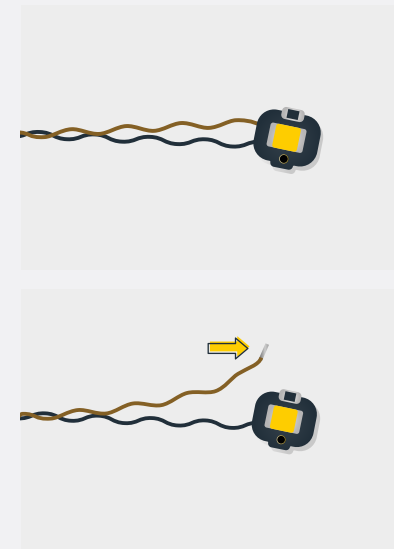
## Check Your Wires

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.



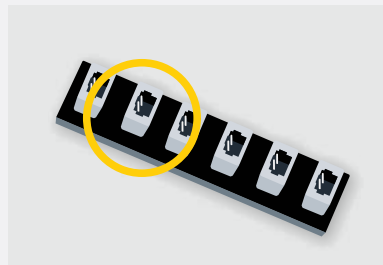
# Troubleshooting

## 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.

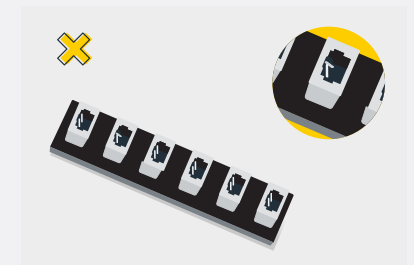
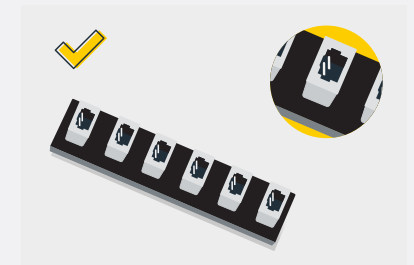
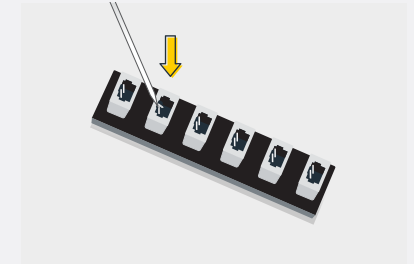
Not only will a light connected to the damaged port not work, but if the pins inside the port are bent to a point they are touching each other, this can result in all other lights in the system to stop working. This is a short circuit.



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.

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

[support.lightmybricks.com](https://support.lightmybricks.com)

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



[lightmybricks.com](http://lightmybricks.com)