



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



**LEGO® UNITED STATES CAPITOL  
BUILDING  
#21030 LIGHT KIT  
INSTALLATION GUIDE**

# Light My Bricks



## LEGO® UNITED STATES CAPITOL BUILDING #21030 LIGHT KIT INSTALLATION GUIDE

Hi There!

We're here to help you get started on the LEGO®  
United States Capitol Building (21030) Light Kit.

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

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

Have fun and enjoy!



## PACKAGE CONTENTS:



4 x White 15cm Bit Light  
5 x White Strip Light



1 x 6-Port Expansion Boards



3 x 5cm Connecting Cables  
2 x 15cm Connecting Cables



1 x USB Power Cable  
(Power Source not Included)

## LEGO PIECES:



- 4 x Tile 1x2 Trans Clear

## Contents

Before You Begin	5
Instructions	8
Final Product	15
Troubleshooting	16
Contact	21

## 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.



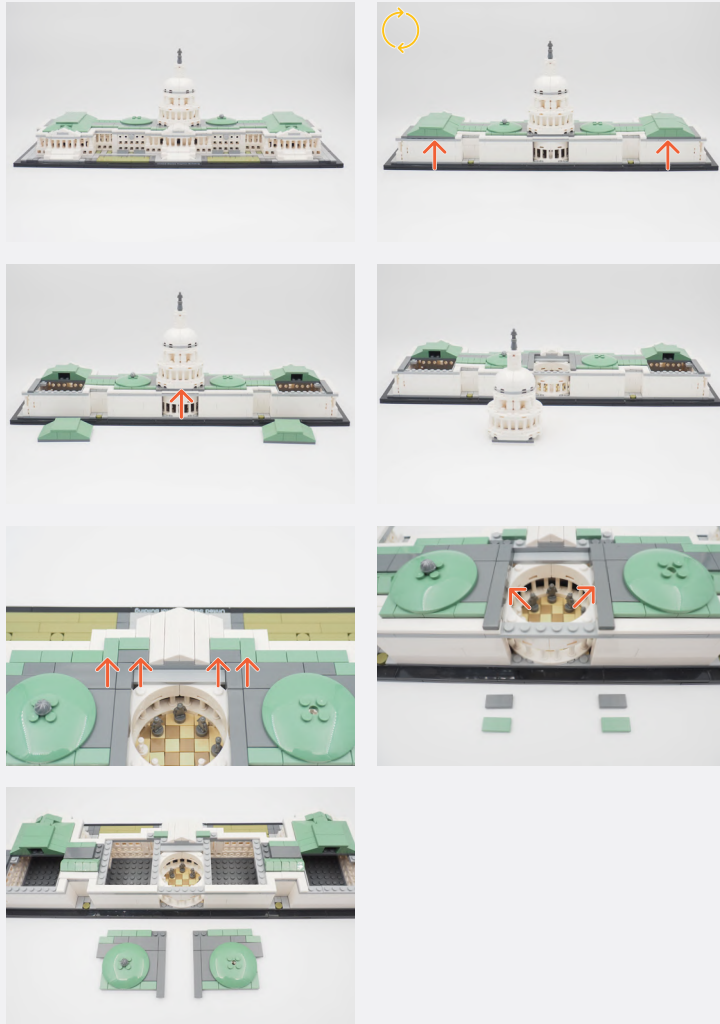


## INSTRUCTIONS

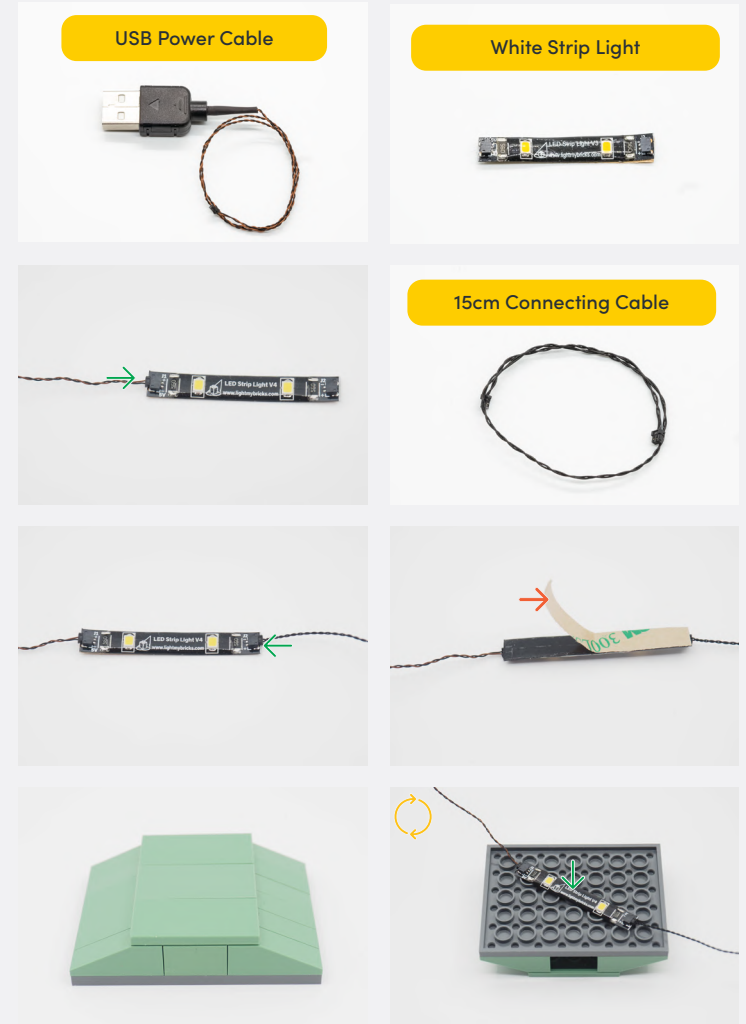
To ensure a smooth installation of your light kit, please read and follow each step carefully. If you run into any issues, please refer to the online troubleshooting guide.



1



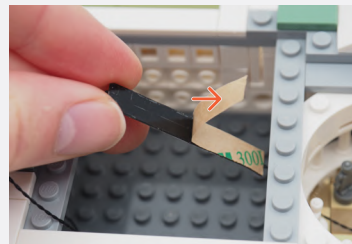
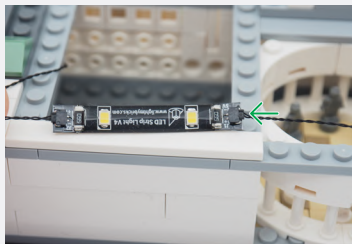
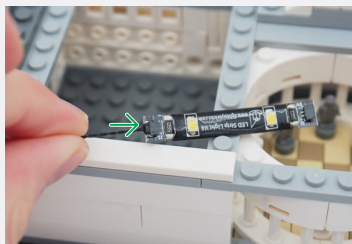
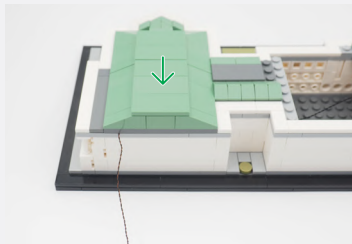
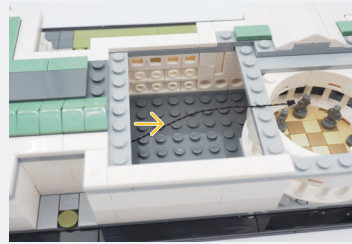
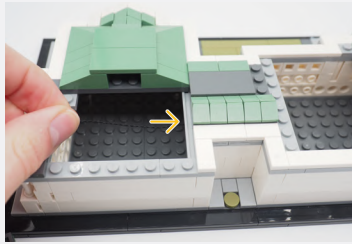
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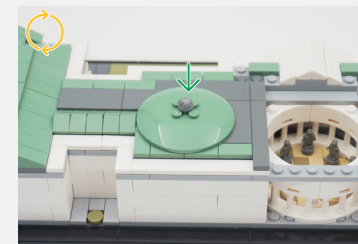
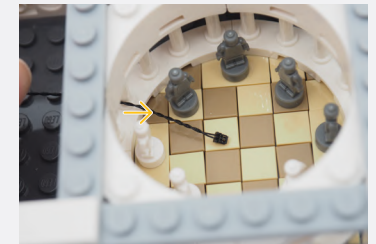
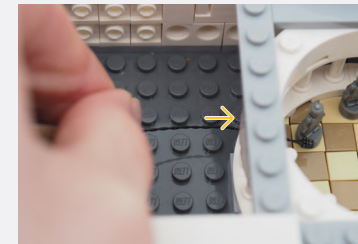
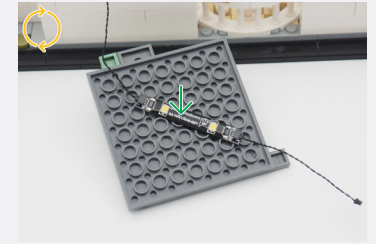
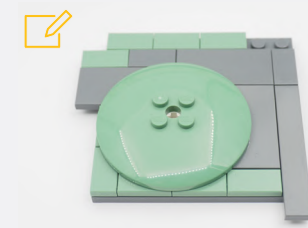
Legend

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

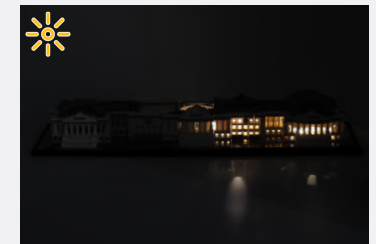
If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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



Adhere to left roof plate section from step 1.

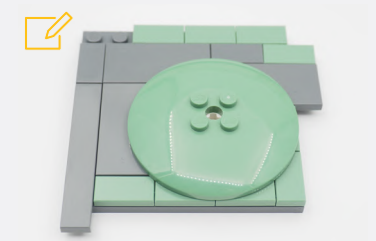
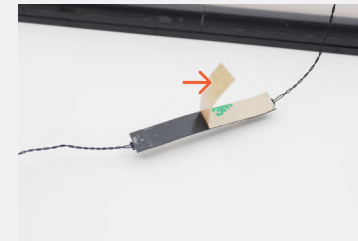
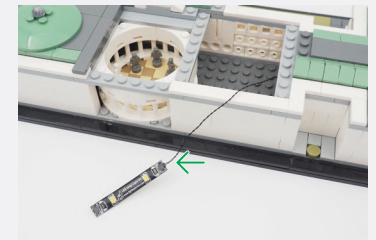
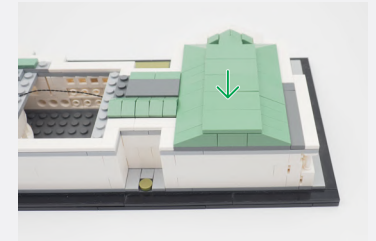
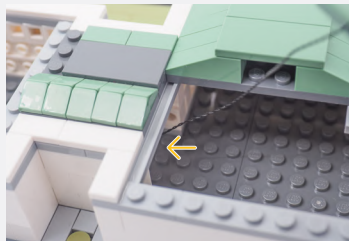
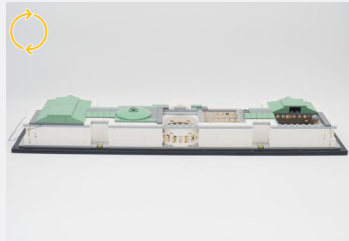


Connect the other end of the USB Power Cable to a USB Power Bank, USB Wall Adaptor, or USB to AA Battery Pack (sold separately)



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

3

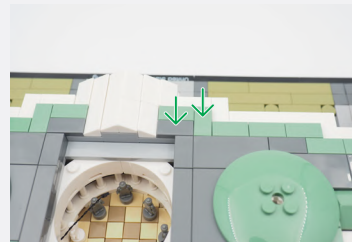
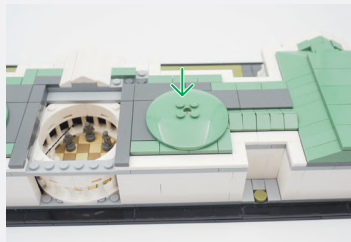
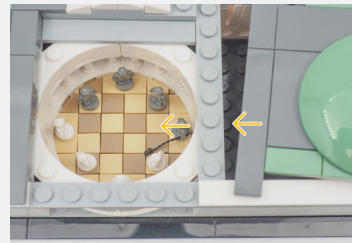


Adhere to right roof plate section from step 1.

**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.

4



5cm Connecting Cable

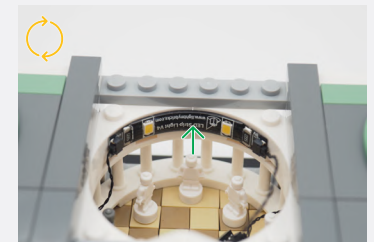
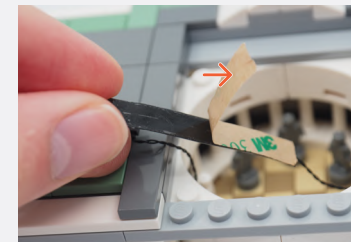
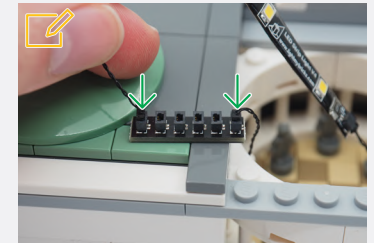


White Strip Light



Connect both the 5cm Connecting Cable from this step and from step 2.

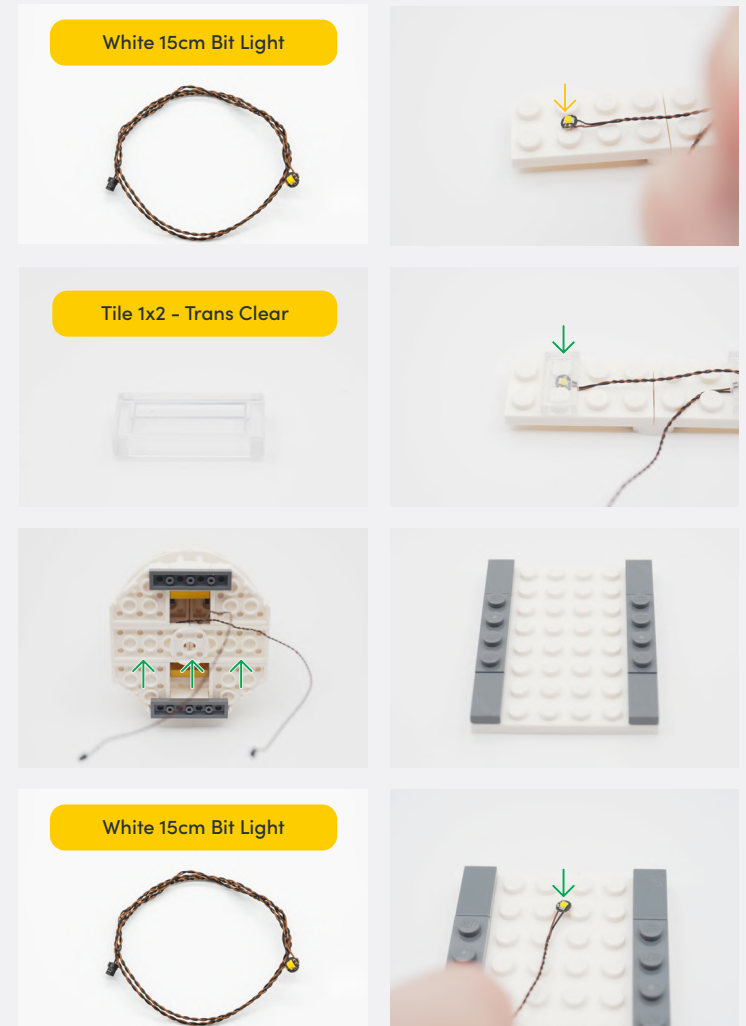
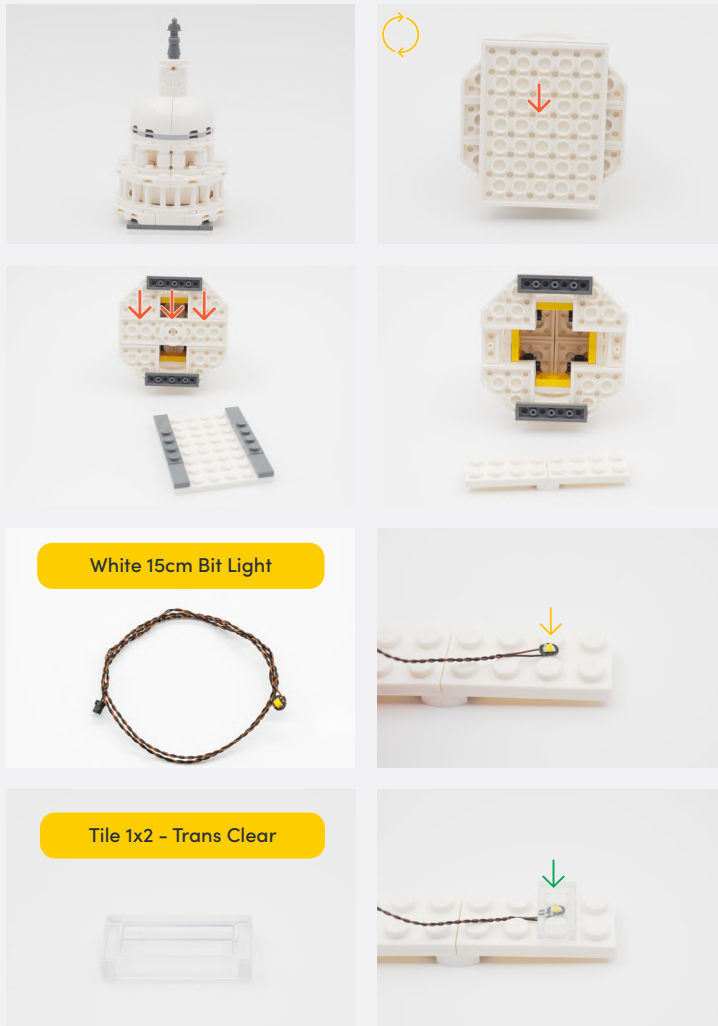
6-Port Expansion Board



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

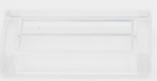
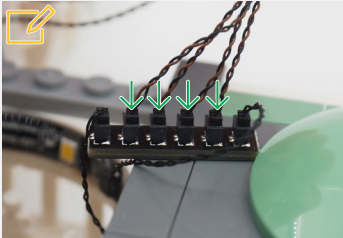


**5**

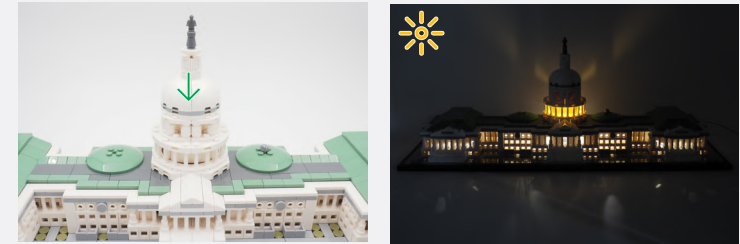


**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID ✨ POWER ON TEST 📝 NOTE ICON

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.

<p>Tile 1x2 - Trans Clear</p> 	
<p>White 15cm Bit Light</p> 	
<p>Tile 1x2 - Trans Clear</p> 	
	

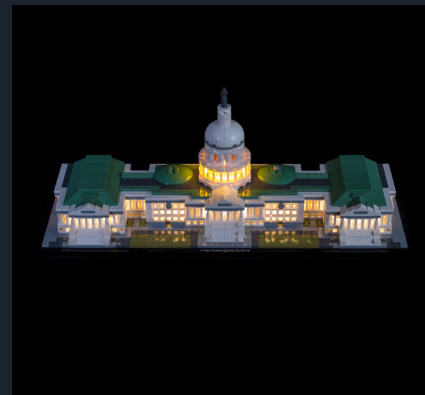
Connect to 6 Port Expansion Board from step 4.



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 United States Capitol Building 21030 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.**

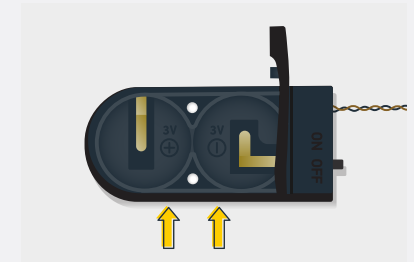
**If the batteries have no power, replace the batteries.**

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

### Check For 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.

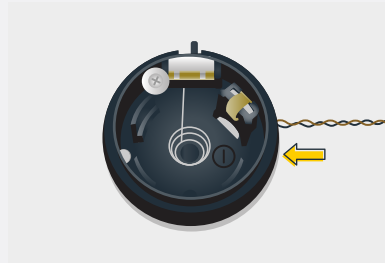
On the opposite side, the “-” side of the battery pack should have the battery flipped upside down, that is the “+” symbol facing upwards.



## Troubleshooting

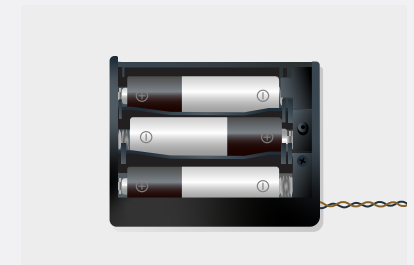
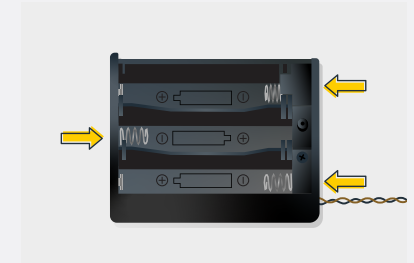
### Check For Cr2032 Batteries Using The Round Battery Pack

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

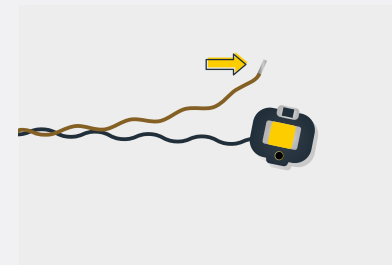
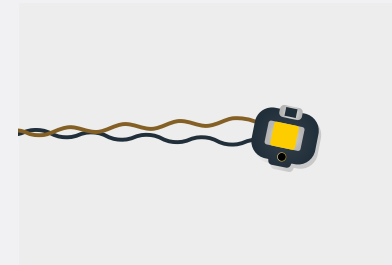
### Check Your Wires

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.



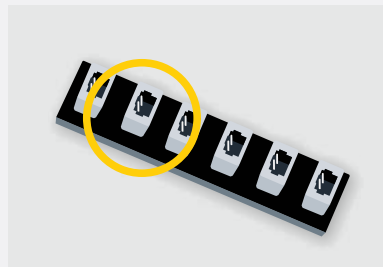
# Troubleshooting

## 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.

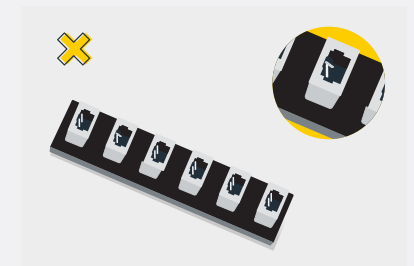
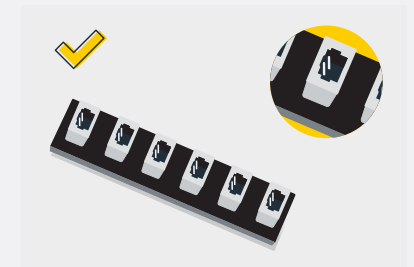
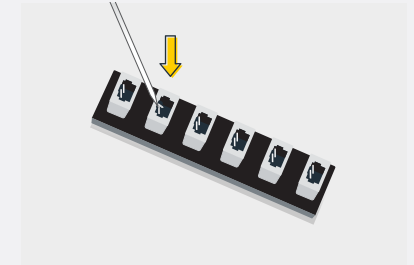
Not only will a light connected to the damaged port not work, but if the pins inside the port are bent to a point they are touching each other, this can result in all other lights in the system to stop working. This is a short circuit.



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 here.

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

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

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



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