

# LEGO LION KNIGHTS' CASTLE #10305 LIGHT KIT INSTALLATION GUIDE



## **Light My Bricks**



## LEGO THE LION KNIGHTS' CASTLE 10305 INSTALLATION GUIDE

Hi There!

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

The Lion Knights' Castle 10305 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 White 30cm Bit Light
- 2 x Yellow 30cm Bit Light
- 2 x Blue 30cm Bit Light
- 13 x Orange 30cm Bit Light \*
- 3 x Warm White 30cm Large Bit Light
- 9 x Orange 30cm Large Bit Light \*



- 2 x 2-Port Expansion Board
- 9 x 6-Port Expansion Board \*
- 4 x Flicker Effects Board



- 6 x 5cm Connecting Cable
- 1 x 15cm Connecting Cable
- 3 x 30cm Connecting Cable
- 5 x 50cm Connecting Cable \*



- 1 x USB Power Cable
- 14 x Adhesive Squares

#### **ASSORTED BRICKS:**



- 30 x Round Plate 1x1 w/ Open Stud Black \*
- 1 x Candle Flame
- 2 x Round Plate 1x1 Trans Orange
- 4 x Round Plate 2x2 w/ Rounded Bottom Trans Clear
- 4 x Tile 1x1 W Clip Round Edges Black
- 4 x Plate 1x1 Mod Rounded w Handle Black
- 1 x Plate 1x2 MW Stud Jumper Black
- 1 x Round Plate 1x1 Trans Blue

<sup>\*</sup> Indicates components which include spares

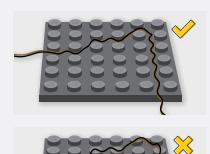


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### **Before You Begin**



## Laying cables in between and underneath bricks

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

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





## **Connecting Cable Connectors To Expansion Boards**

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

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



### **Before You Begin**



## **Connecting Cable Connectors To Strip Lights**

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



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

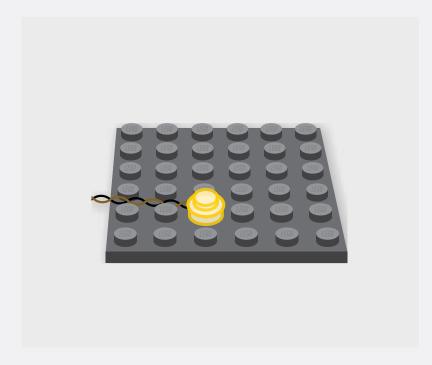
Take extra care when inserting the micro connectors to micro ports of Micro Expansion Boards. Connecting Micro Bit Lights to Micro Expansion Boards is similar to connecting lights and cables to Strip Lights. With the expansion board facing up, ensure the side of the connector with the wires exposed is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



## **Before You Begin**

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

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



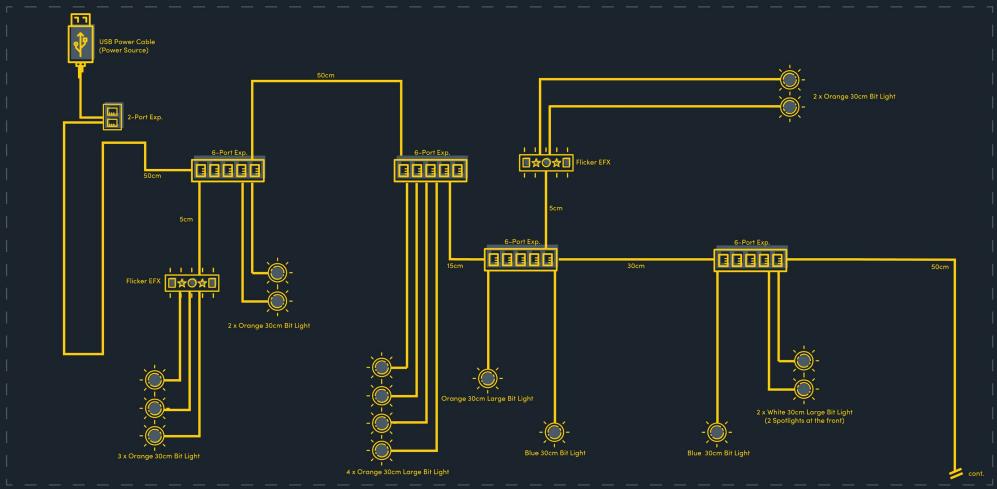






## BLUEPRINT

#### Main Castle Area (w/ Bridge)





## BLUEPRINT

## □☆○☆□ Flicker EFX □☆○☆□ Flicker EFX 2 x Orange 30cm Bit Light 2 x Orange 30cm Bit Light Orange 30cm Large Bit Light 2 x Orange 30cm Large Bit Light Orange 30cm Large Bit Light Orange 30cm Bit Light





#### **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:



LÉGENDE:



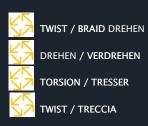
LEGGENDA:





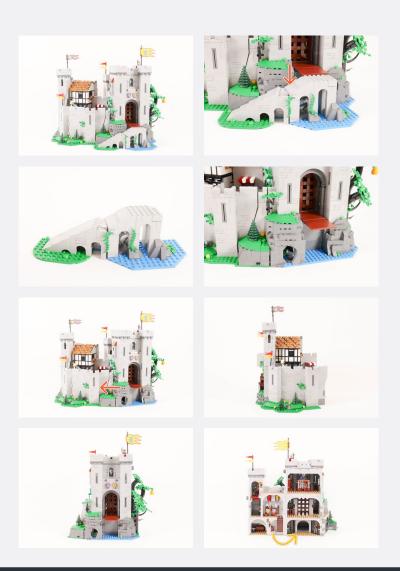










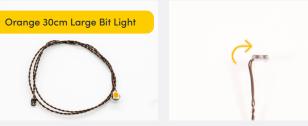














Black Round Plate 1x1



w/ Open Stud



Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT

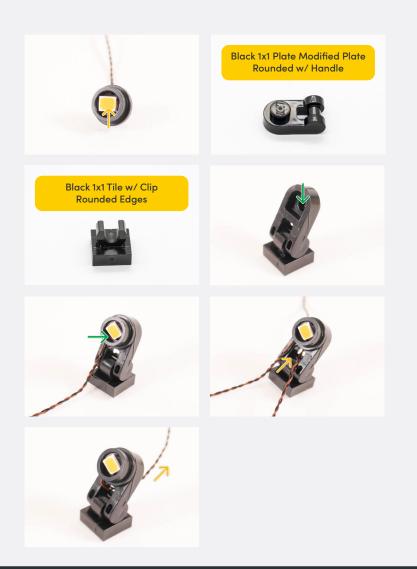


TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON



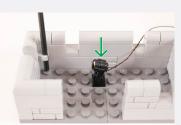


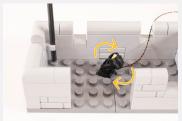




















→ DISCONNECT →

CONNECT/ RECONNECT



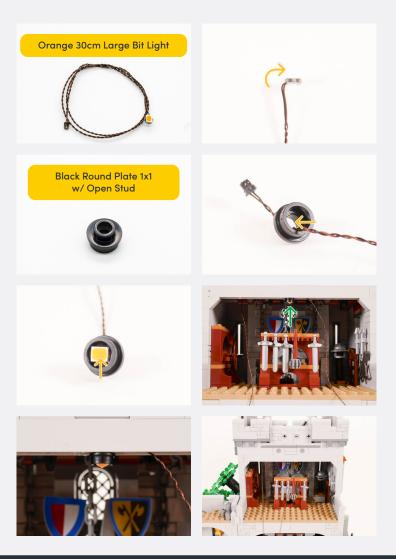




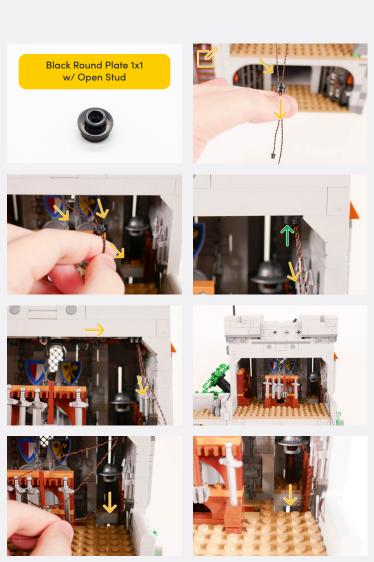








Thread both of the cables through the Open Stud

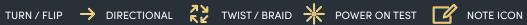
















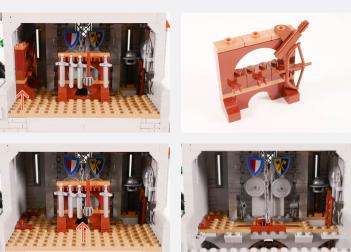
















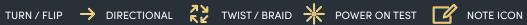




 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT



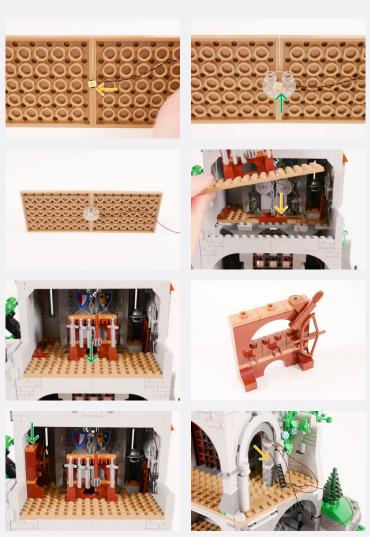


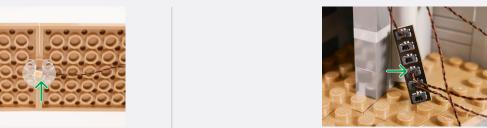
























ightarrow disconnect ightarrow

CONNECT / RECONNECT





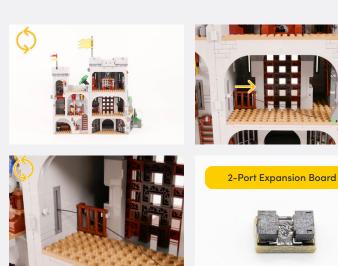




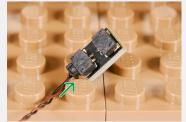




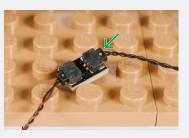












 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT



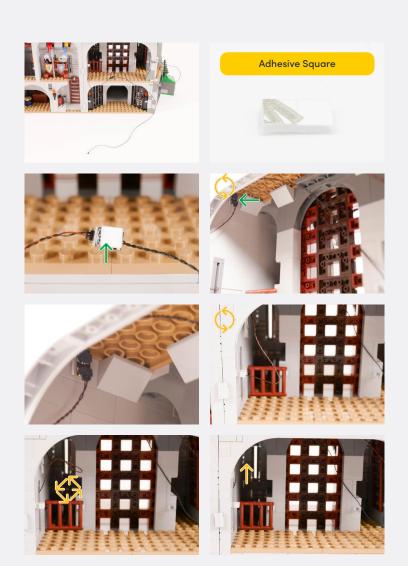




TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 💥 POWER ON TEST 📝 NOTE ICON









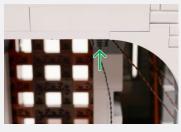












 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT



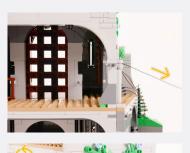








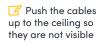








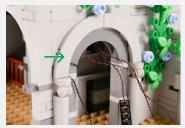










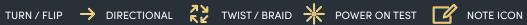










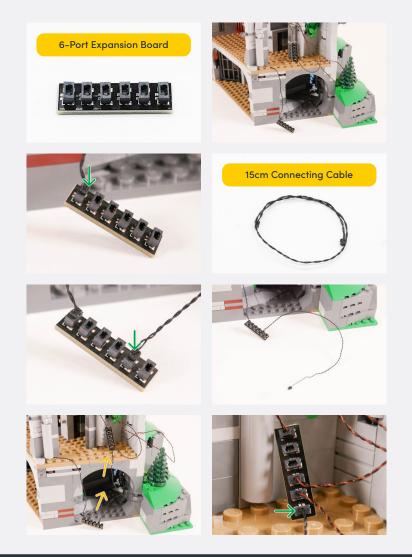


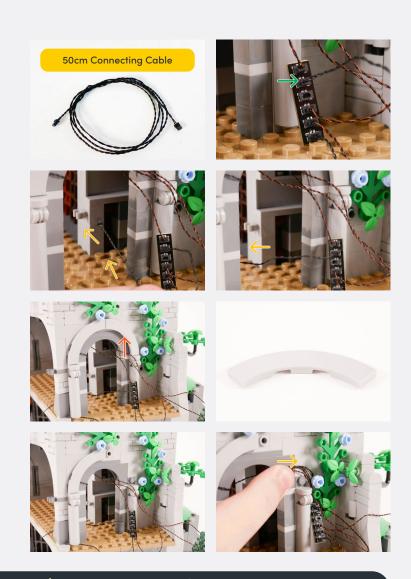
























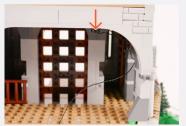








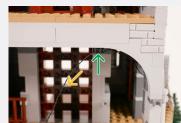






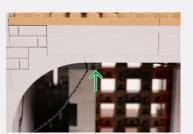










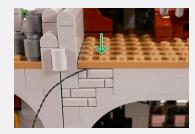






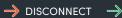








Legend











Ensure to only lift up the plate as much

as shown. Lifting too

far will cause the Large Orange Bit Light you installed previously to come

loose.

TURN / FLIP -> DIRECTIONAL R TWIST / BRAID R POWER ON TEST NOTE ICON







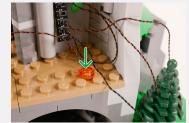


















**Exclude** the 15cm Connecting Cable from twisting







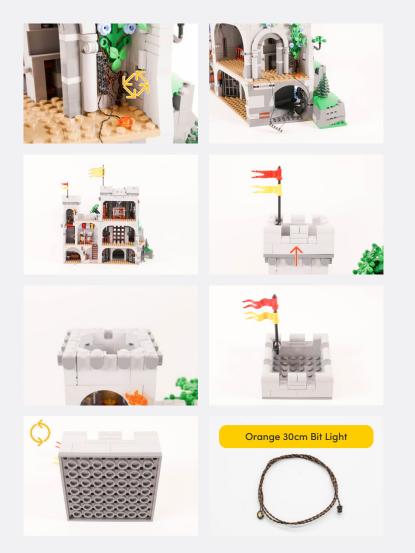


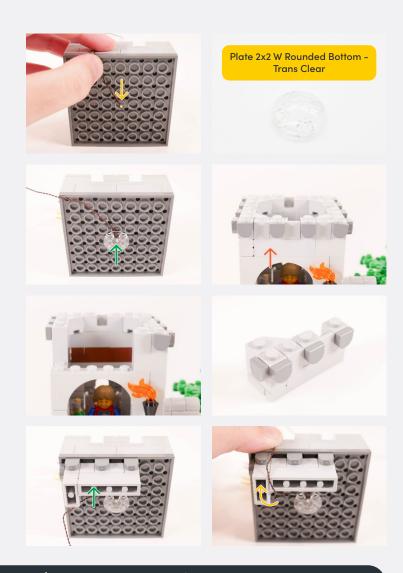


















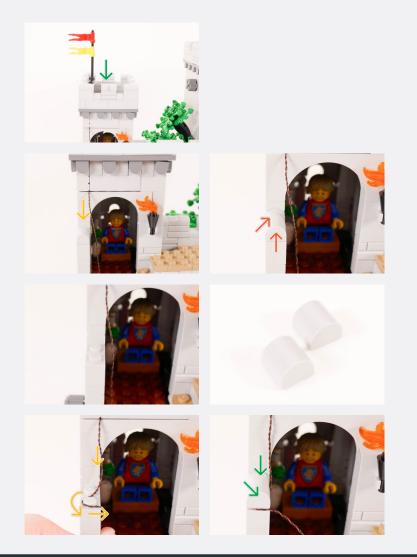






















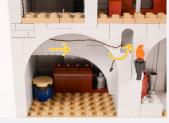








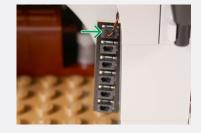














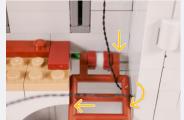


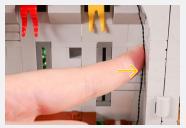
















CONNECT / RECONNECT





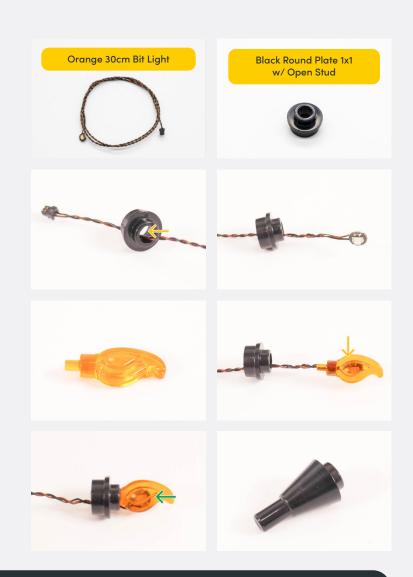


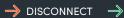






















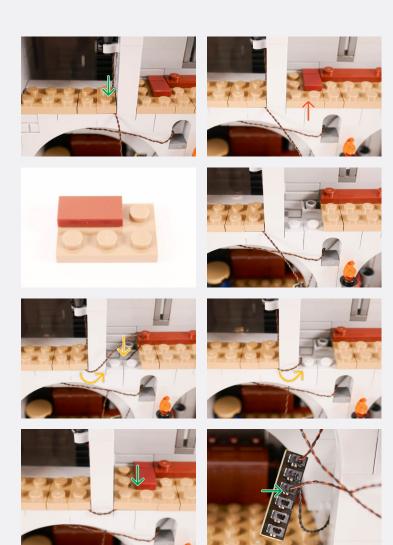




Legend















































🗹 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.







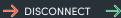






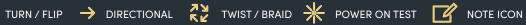
Legend

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





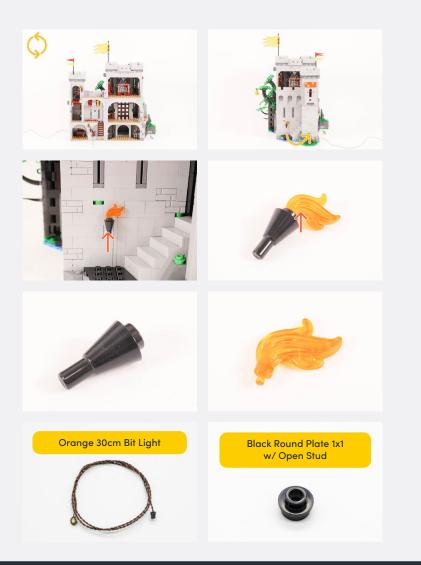














Legend







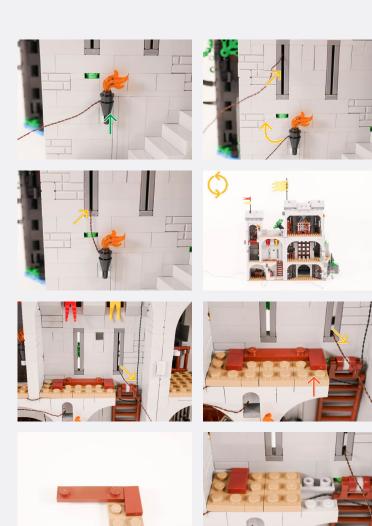


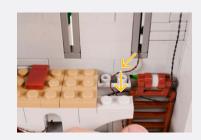


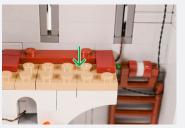
TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON

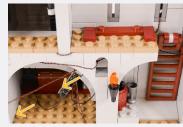




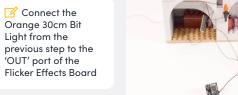




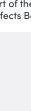




















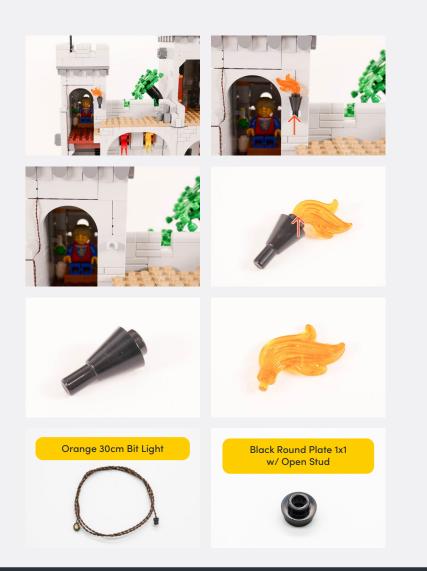




TURN / FLIP -> DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

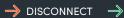




















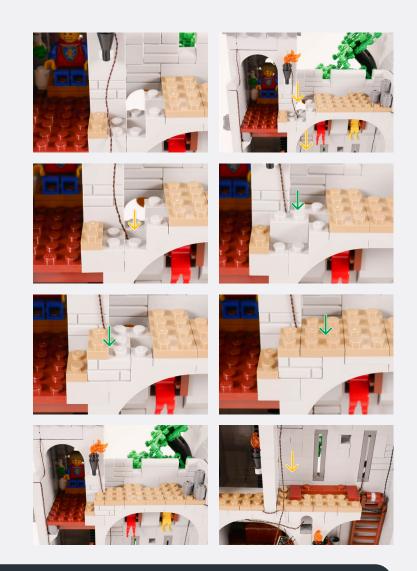














CONNECT / RECONNECT



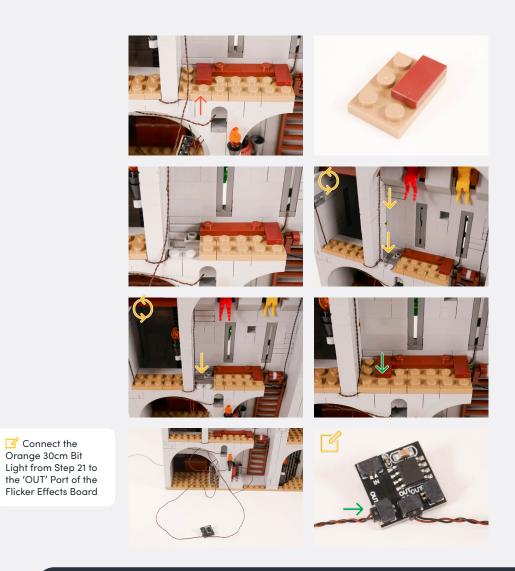


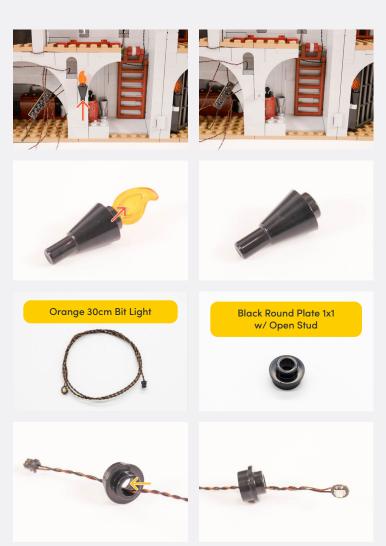












 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT







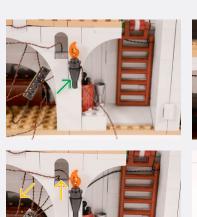


Connect the



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









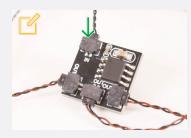


Connect the Orange 30cm Bit Light from Step 23 to the 'OUT' Port of the Flicker Effects Board





Connect the 5cm Connecting Cable to the 'IN' Port of the Flicker Effects Board





Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT





TURN / FLIP -> DIRECTIONAL R TWIST / BRAID R POWER ON TEST NOTE ICON







Connect the other end of the 5cm Connecting Cable to the 6-Port Expansion Board

Twist all the cables but exclude the 50cm Connecting Cable

Hide the Cables and Boards behind the pillar















Legend

→ DISCONNECT →

CONNECT/ RECONNECT



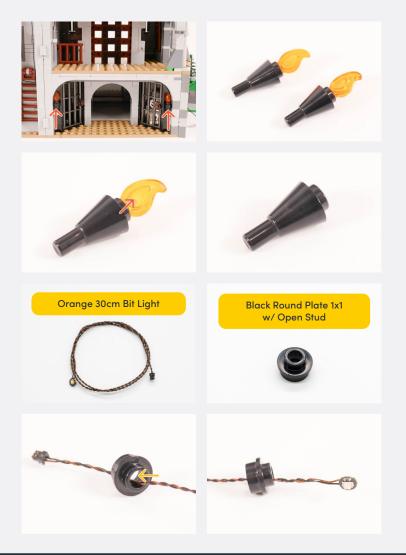




TURN / FLIP → DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON

















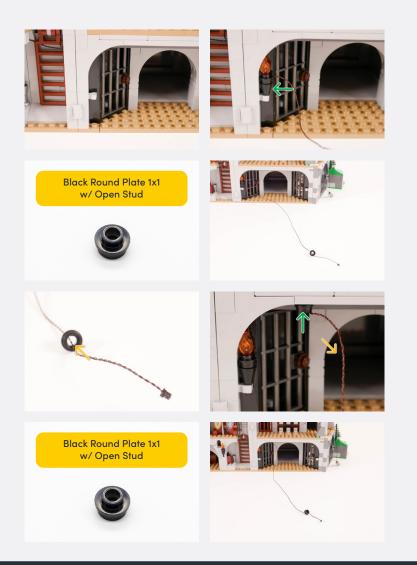














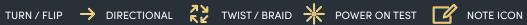














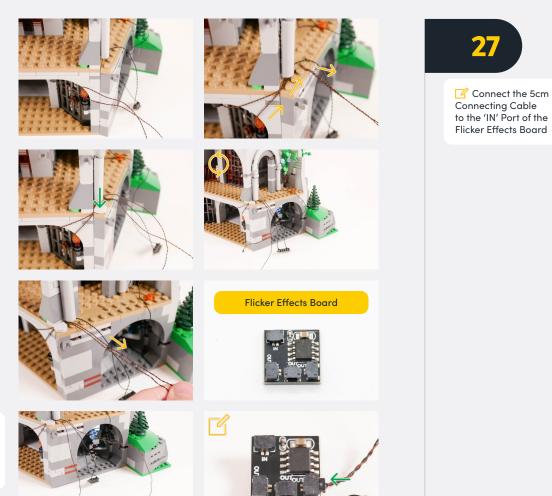


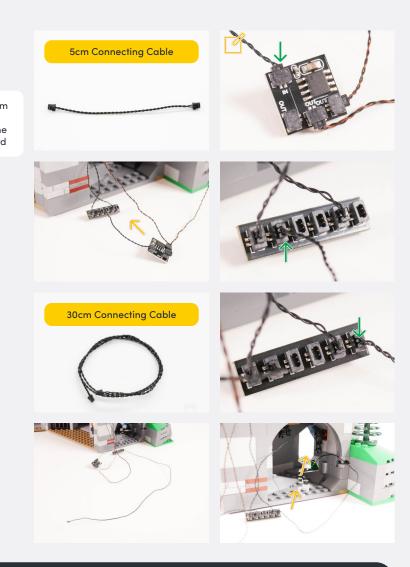










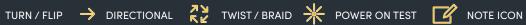


Connect the two Orange 30cm Bit Lights from Step 25 to the 'OUT' Port of the Flicker Effects Board











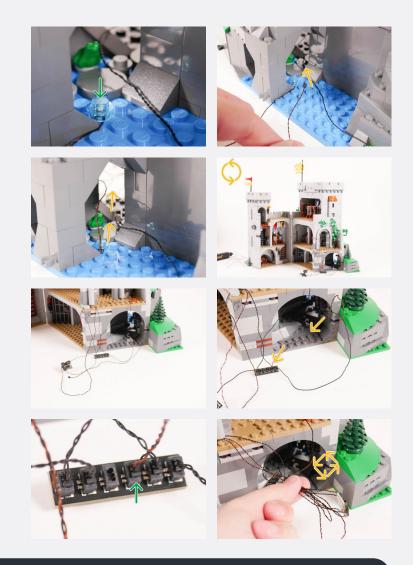




Legend



















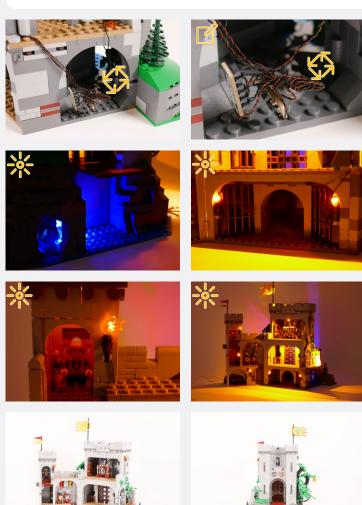


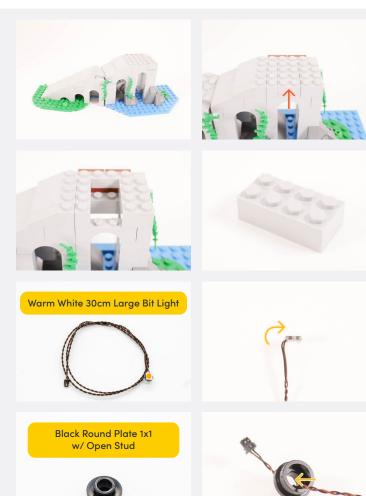




🗹 If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing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

**Exclude the 30cm** Connecting Cable from twisting



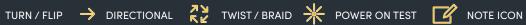














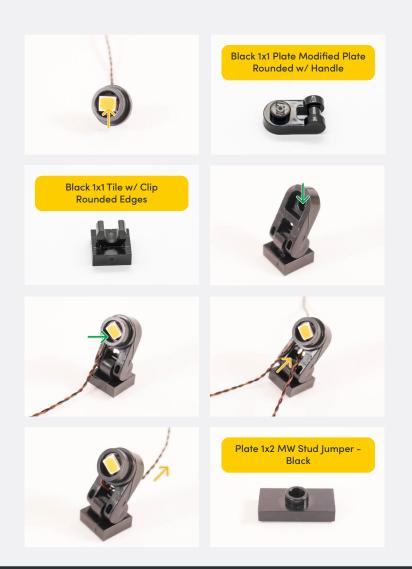










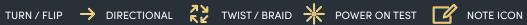










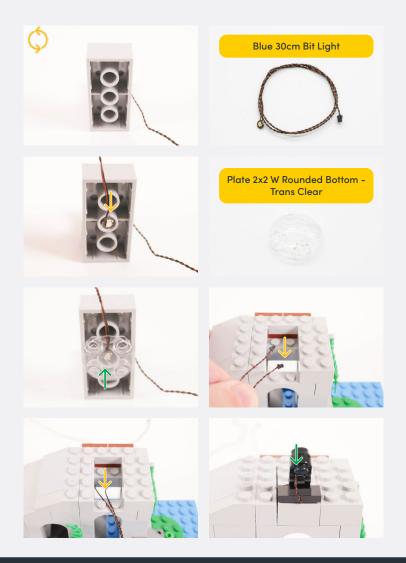


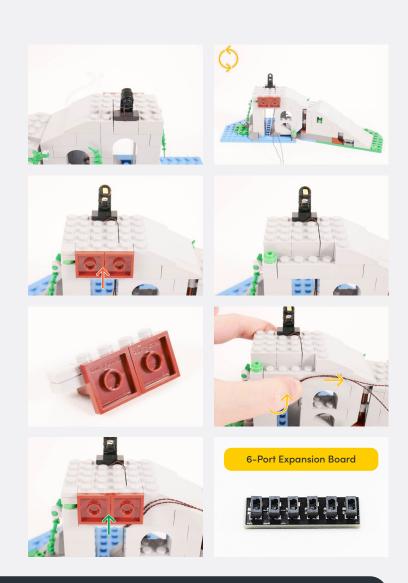






















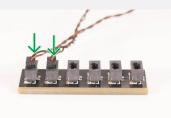








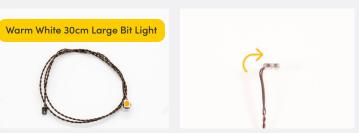












Black Round Plate 1x1 w/ Open Stud







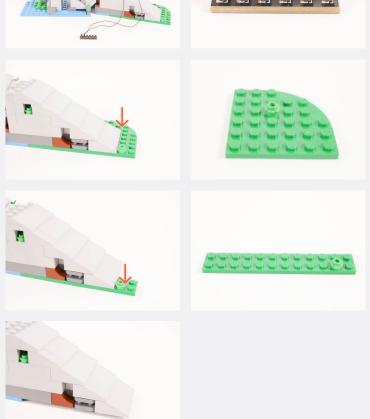












Legend

→ DISCONNECT →





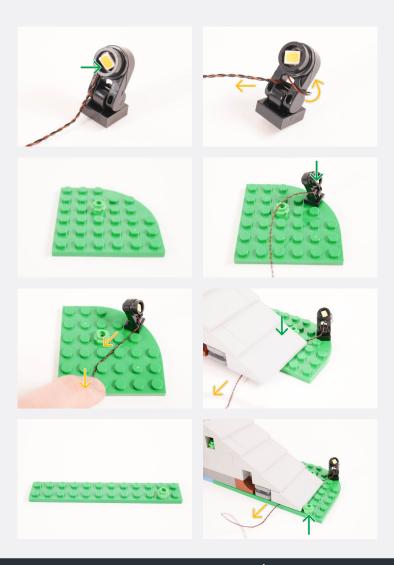














Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 





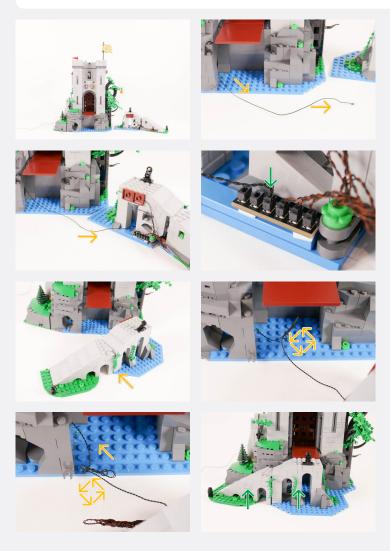








If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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



















Legend

→ DISCONNECT →

CONNECT / RECONNECT

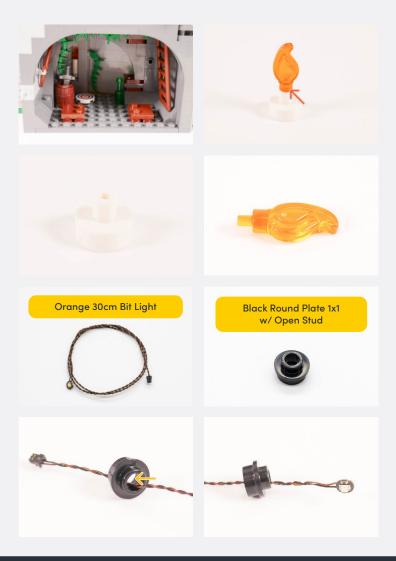
TURN / FLIP -> DIRECTIONAL R TWIST / BRAID R POWER ON TEST NOTE ICON

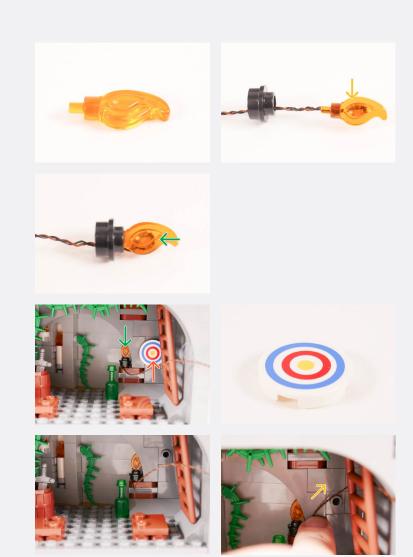












Legend

→ DISCONNECT →

CONNECT/ RECONNECT



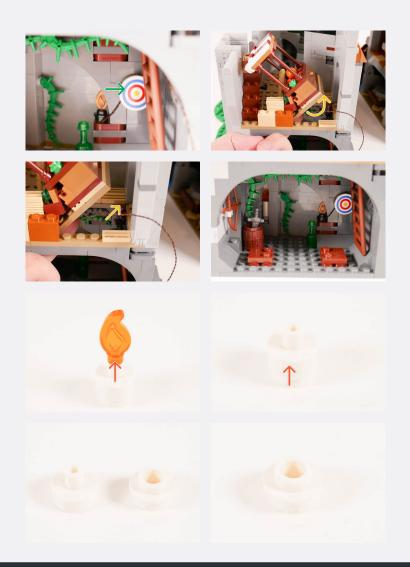










































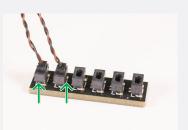
























Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT



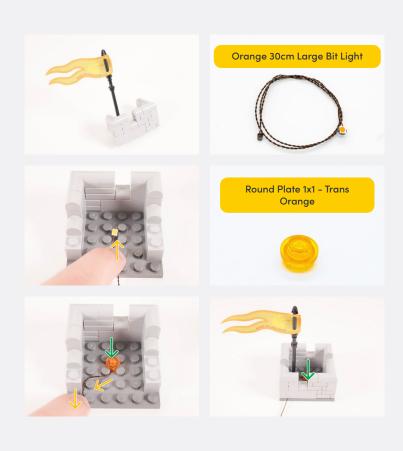


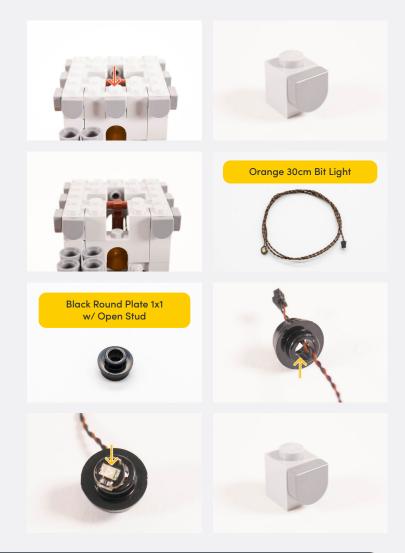
















































Legend

→ DISCONNECT →

CONNECT / RECONNECT



TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON









































Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

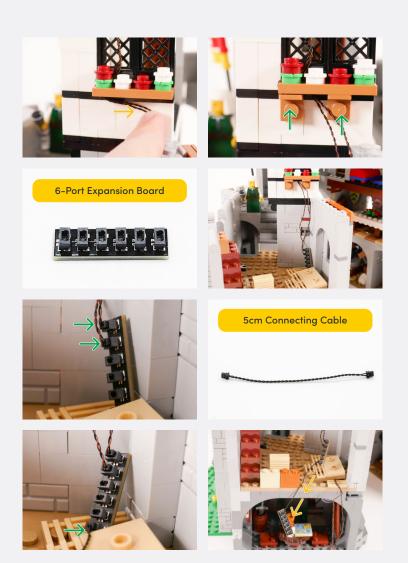






















































Pull one of the 50cm Connecting Cables out the side















Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 



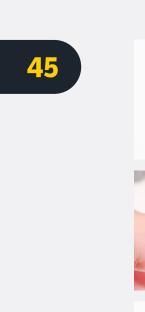










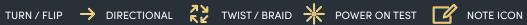




















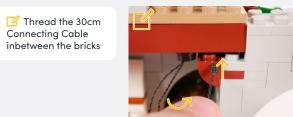


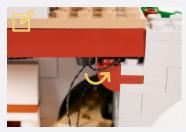








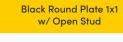








Thread the 50cm Connecting Cable through the Black Round Plate 1x1 w/ Open Stud













Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 











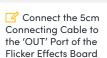










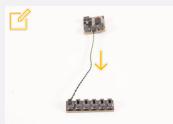


Connect the other end to the 6-Port **Expansion Board** 





















Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

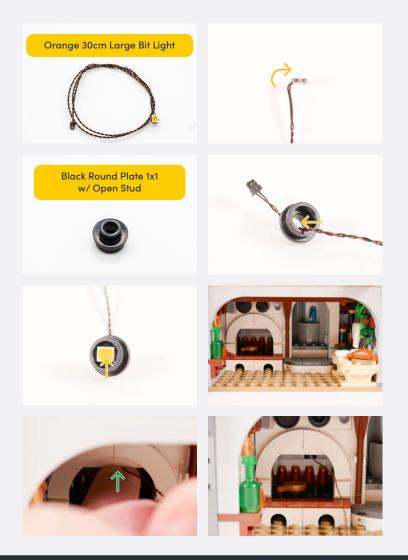










































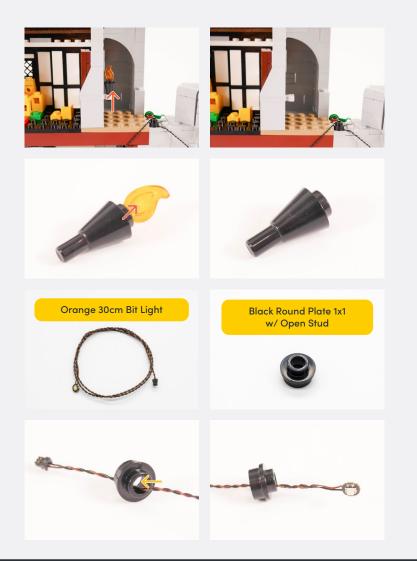




TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON

















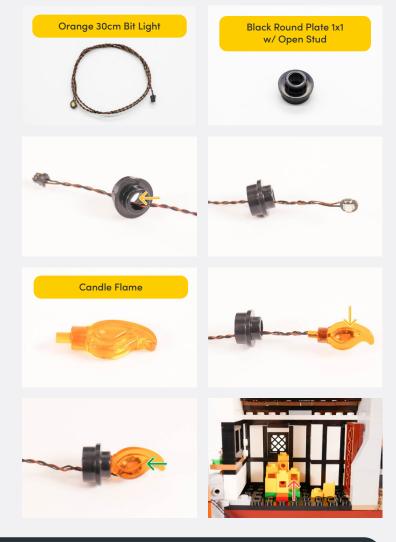






















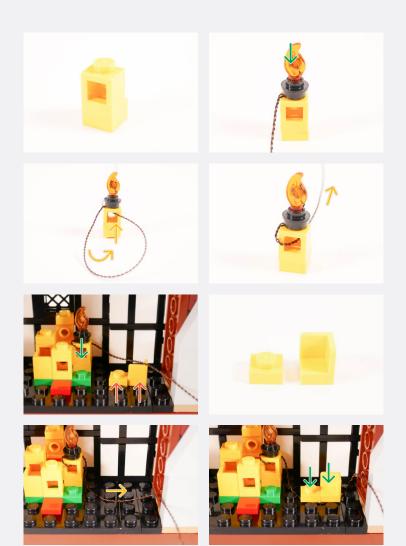
























beneath the door





Legend

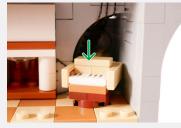


If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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

















Legend

→ DISCONNECT →

CONNECT / RECONNECT

TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON



✓ Take a spare Expansion Board with a Power Source and connect it to the 50cm Connecting Cable to test the

lights







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.





























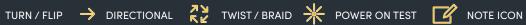






Legend

→ DISCONNECT →



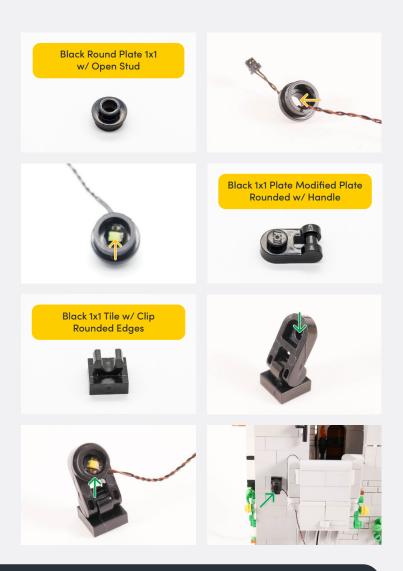




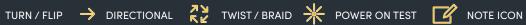








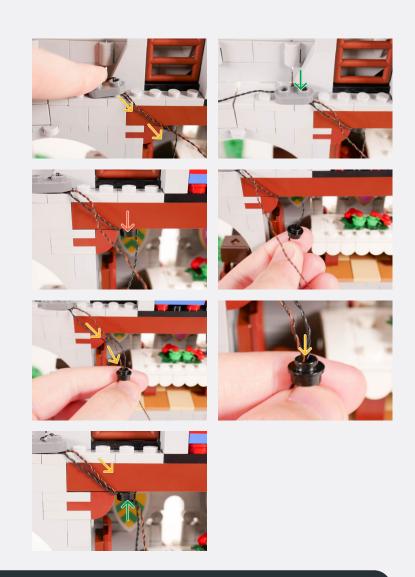




















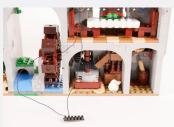


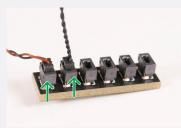




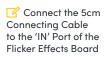










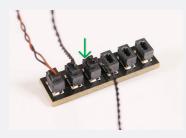


Connect the other end to the 6-Port **Expansion Board** 









60

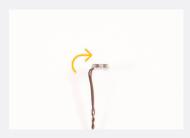


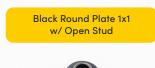














→ DISCONNECT →

CONNECT / RECONNECT



TURN / FLIP -> DIRECTIONAL R TWIST / BRAID R POWER ON TEST NOTE ICON

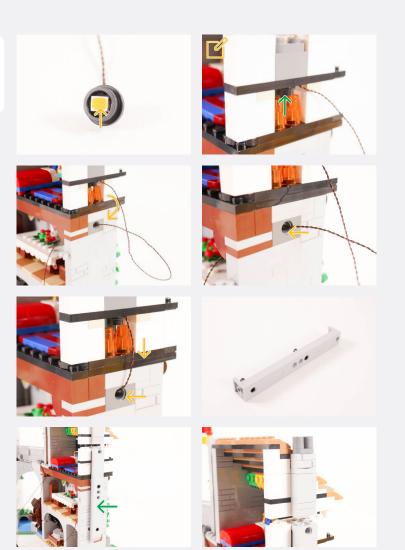








You may need to remove the surrounding section or orange cones to connect the piece

















Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT









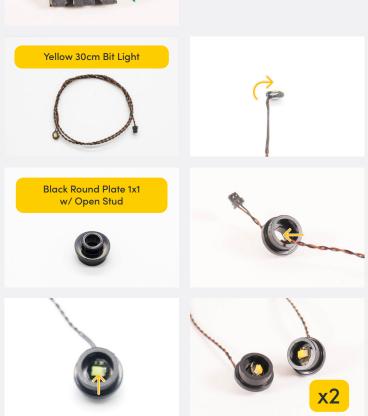


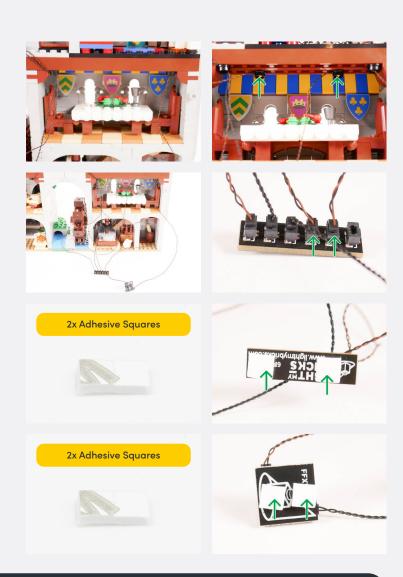


Connect the Orange 30cm Large Bit Light to the 'OUT' Port of the Flicker Effects Board



**62** 



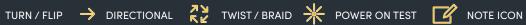














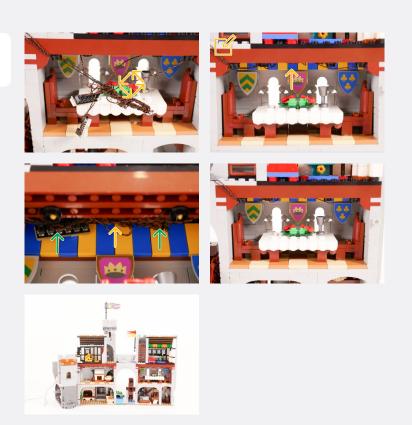




Legend



I Hide the Cables and Boards above where the ceiling is

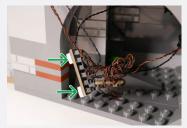


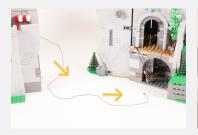
**63** 



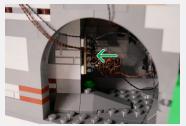














Legend

















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













### **FINAL PRODUCT**

This finally completes installation of the Light My Bricks LEGO Lion Knights' Castle 10305 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.



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

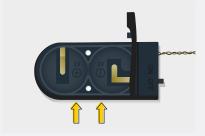
If the batteries have no power, replace the batteries.

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







# 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.







#### **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.







## 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

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



lightmybricks.com