LIGHT MY BRICKS

# LEGO® MEDIEVAL BLACKSMITH #21325 LIGHT KIT INSTALLATION GUIDE

# Light My Bricks

## LEGO® MEDIEVAL BLACKSMITH #21325 INSTALLATION GUIDE

Hi There!

We're here to help you get started on the LEGO® Medieval Blacksmith (21325) Light Kit.vThis 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 pavge.

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

Have fun and enjoy!

# PACKAGE CONTENTS:

11 x White 30cm Bit Lights*
1 x White 15cm Bit Light
5 x Orange 30cm Bit Lights

4 x 6-Port Expansion Boards
4 x Adhesive Squares

3 x Flicker Effects Boards (3PFX)

3 x 5cm Connecting Cables
1 x 30cm Connecting Cable
2 x Wireless Power Connectors

1 x USB Power Cable
(Power Source not Included)

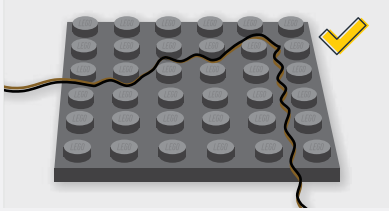
# LEGO PIECES:

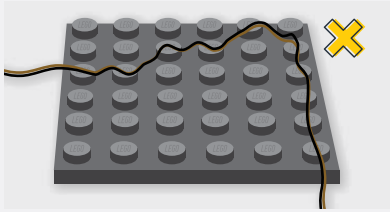
- 9 x Black Round Plate 1x1 w Open Stud*
- 1 × 1x1 White Round Plate 1x1 w Open Stud
- 1 × Candle Flame
- 2 x Black Arm Skeleton, Bent w Clips (Horizontal Grips)
- 4 x Black Modified Plate Rounded w Handle
- 2 x Black Plate 1x2
- 1 x Black Plate 2x4
- 1 x Trans Clear Plate 2x2 w Rounded Bottom

Asterisks * indiciates 1 extra component has been included just in case!

# Contents

# Before You Begin

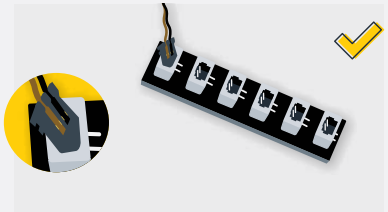


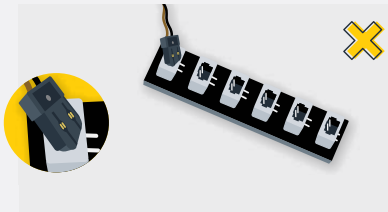


## Laying cables in between and underneath bricks

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.

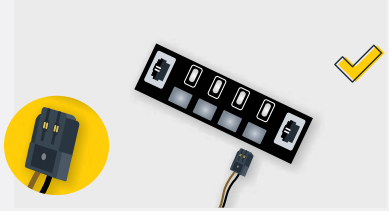
*Incorrectly inserting the connector can can result in bent pins inside the port or possible overheating of the expansion board when connected.*

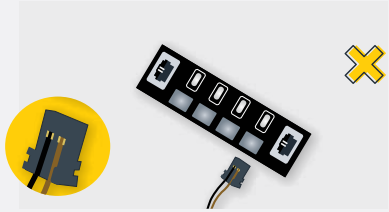
# Before You Begin



## 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.





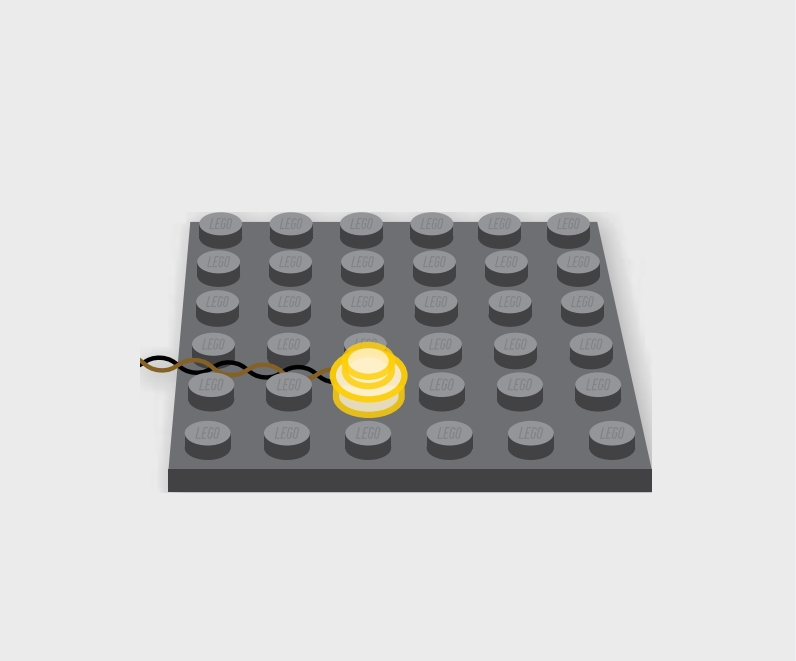
## Connecting Micro Cable Connectors To Micro Expansion Board Ports

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.

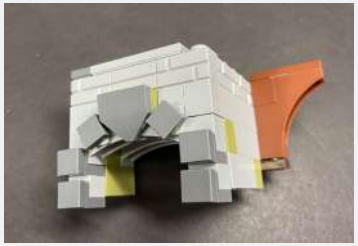


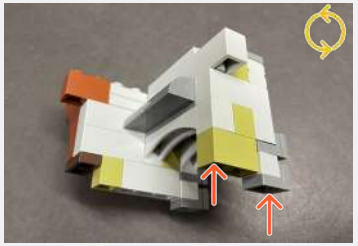
# INSTRUCTIONS

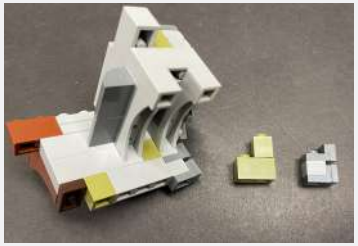
To ensure a smooth installation of your light kit, please read and follow each step carefully. If you run into any issues, please refer to the online troubleshooting guide.

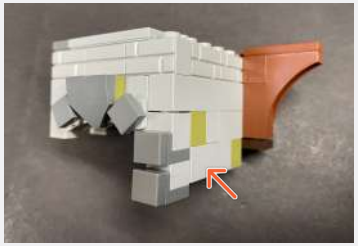
## 1

Ensure the Bit Light LED is facing down

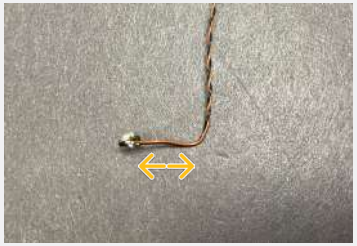


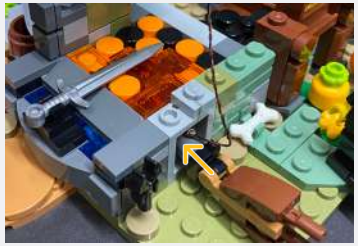




Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

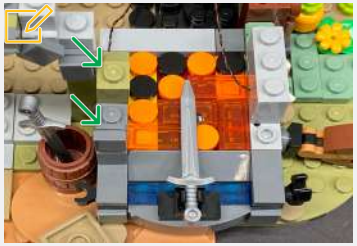
## 2



Use the 1x3 brick you removed from the previous step

Reconnect the two sections you removed from the previous step



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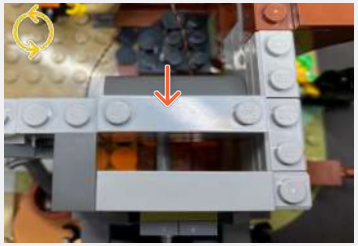
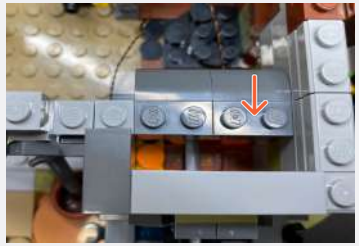
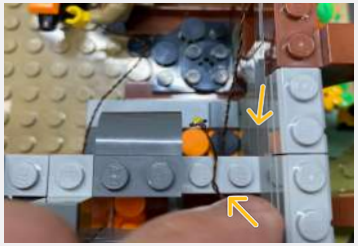




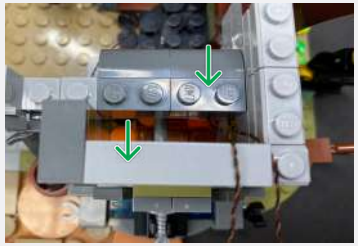

Ensure both White Bit Light and Orange Bit Light cable from previous step are layed over the first wall in between studs

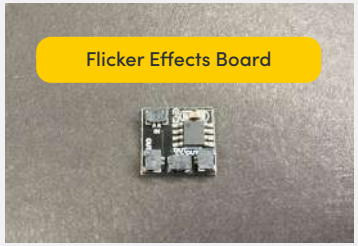


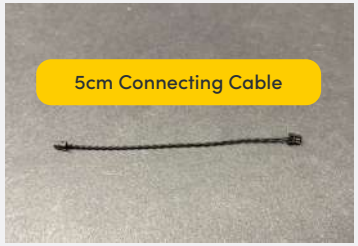
**Legend** DISCONNECT · CONNECT / RECONNECT · TURN / FLIP · DIRECTIONAL · TWIST / BRAID · POWER ON TEST · NOTE ICON

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 on our troubleshooting page.

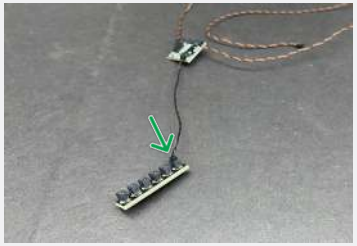
Connect both Orange Bit Lights from the furnace to the **OUT** ports on the Flicker Effects Board.



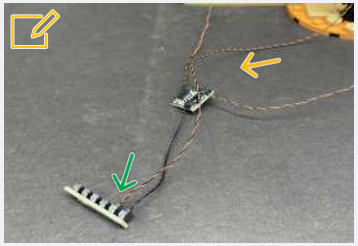




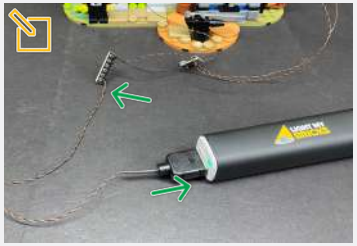


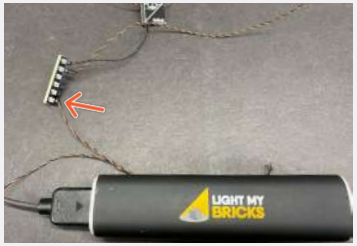
Connect the White Bit Light to the 6-Port Expansion Board



## 4

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



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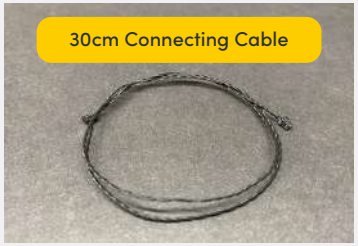
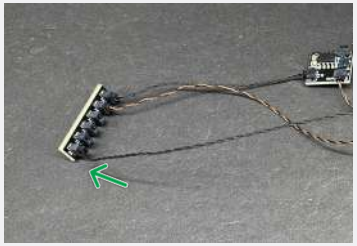
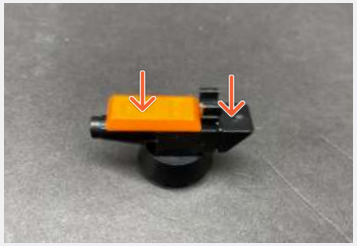
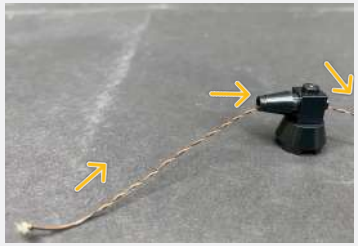


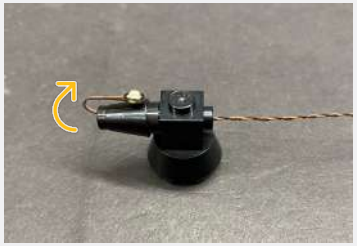



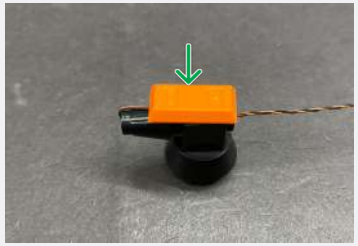
Legend: DISCONNECT · CONNECT / RECONNECT · TURN / FLIP · DIRECTIONAL · TWIST / BRAID · POWER ON TEST · NOTE ICON

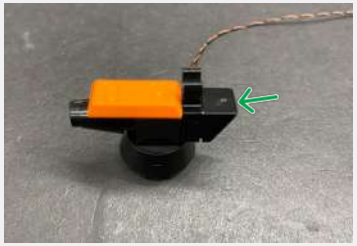
# 6

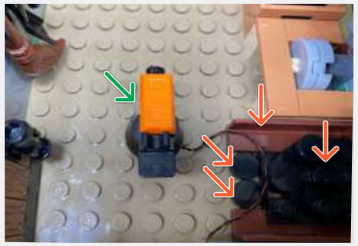


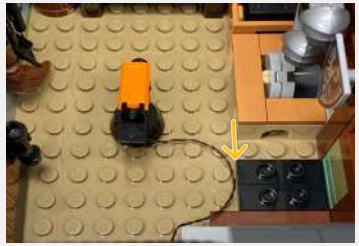



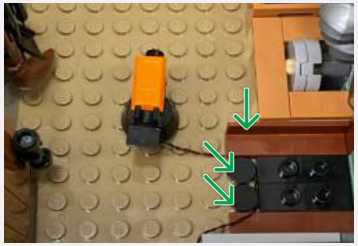


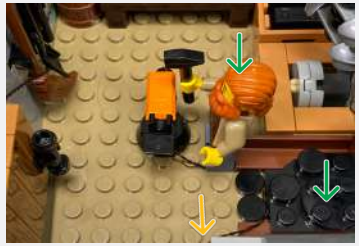




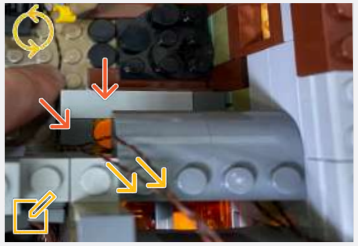


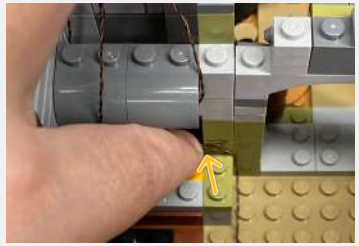


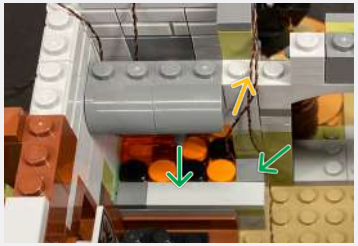


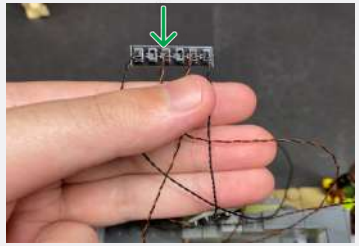


Ensure both Orange Bit Light from the anvil and Orange Bit Light cable from step 1 are layed in between studs, then up over the wall





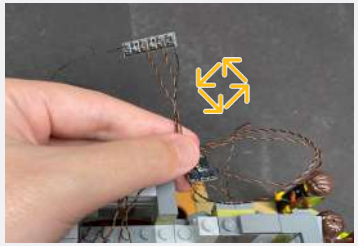


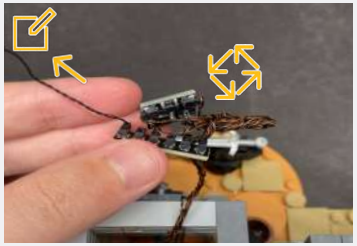


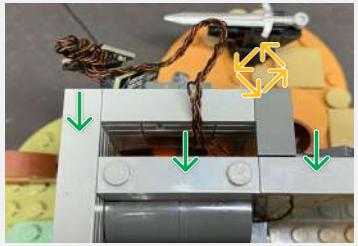
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

## 7

Twist/Braid all Bit Light Cables together ensuring you leave out the 30cm Connecting Cable







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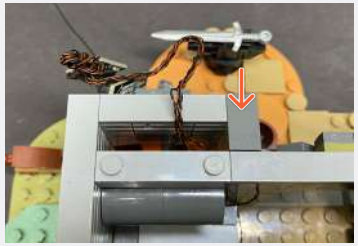
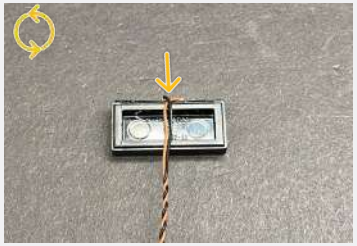
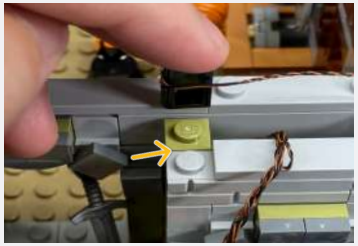
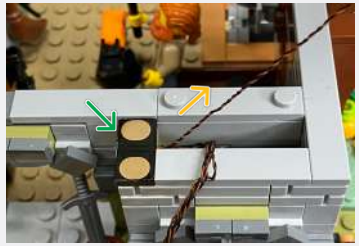
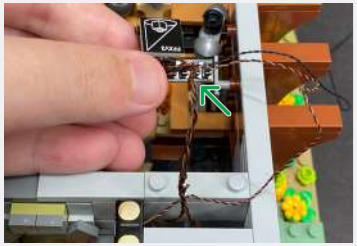


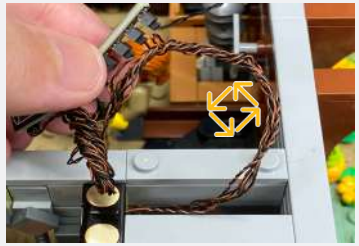


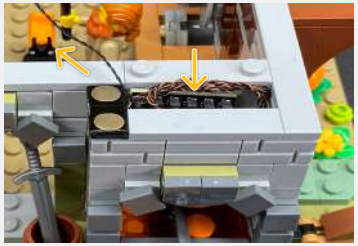


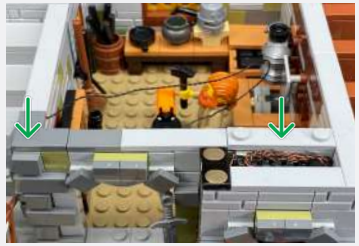








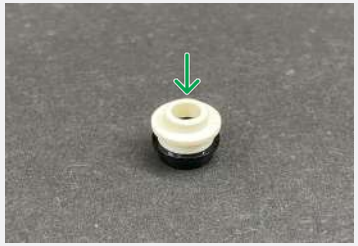


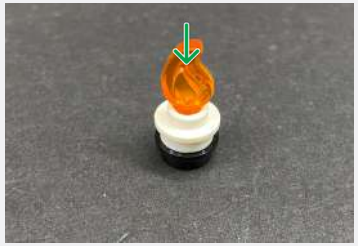


Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

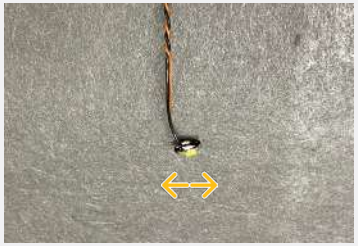
## 9

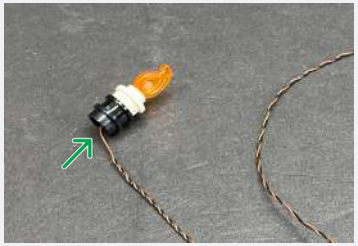


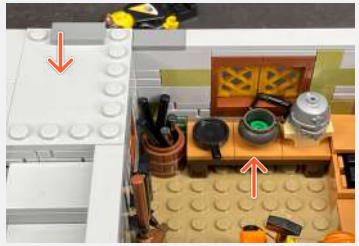


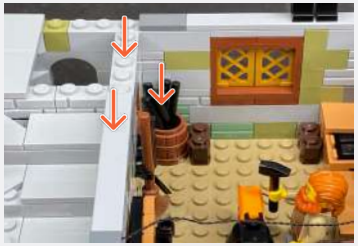



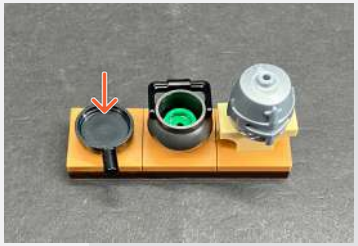


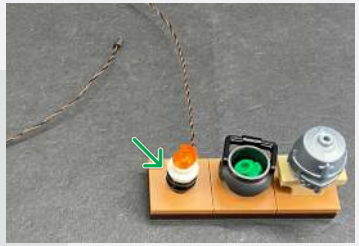








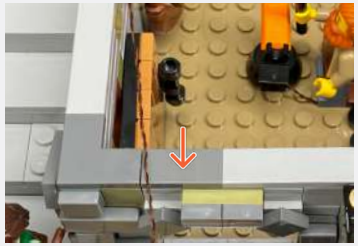
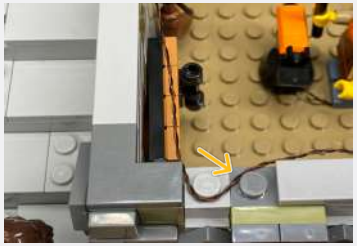
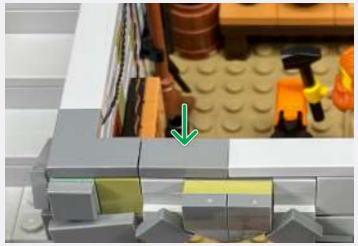




Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

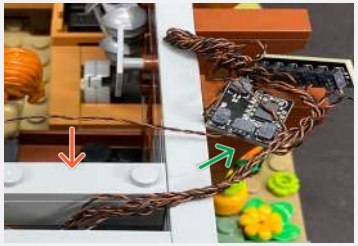
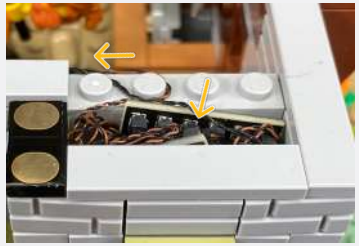


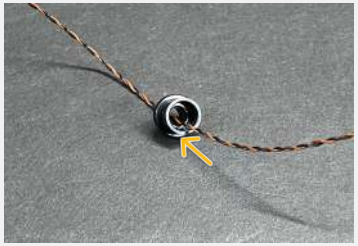


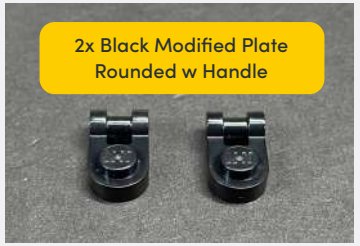

Temporarily lift out the Flicker Effects Board so you can connect the White Bit Light from the candle to the remaining **OUT** port.

## 10

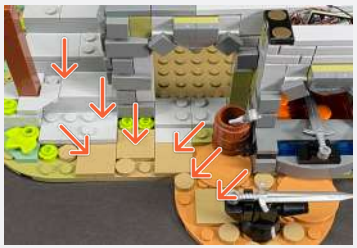



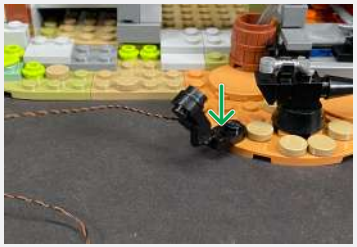


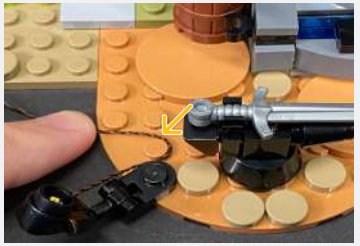

Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

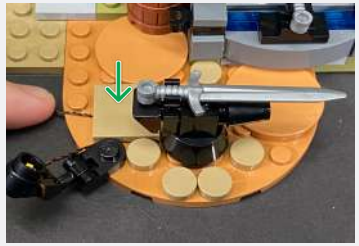


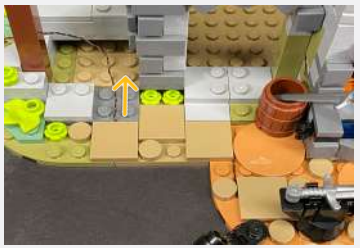


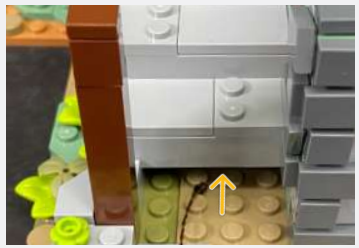




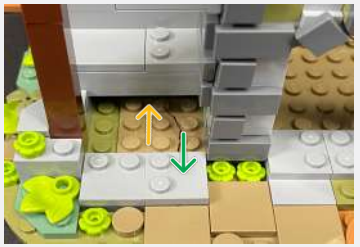




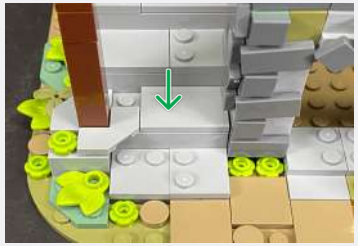




Thread the Bit Light cable underneath and up behind the stairs



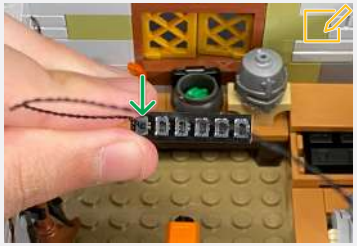
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

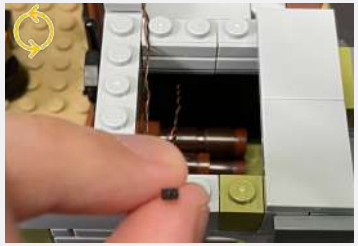


## 11

Connect the 30cm Connecting Cable from step. 5 to the 6-Port Expansion Board

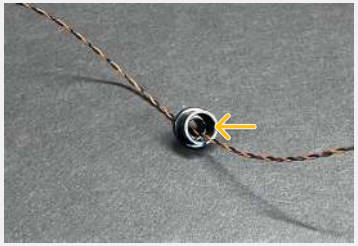
Connect the White 30cm Bit Light from the front spotlight to the Expansion Board

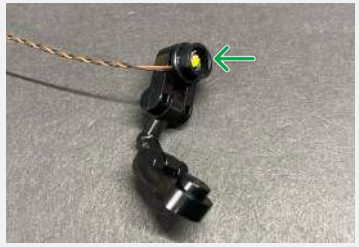


## 12

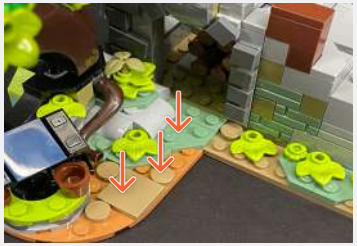






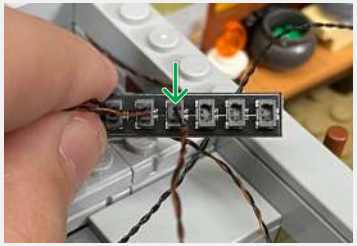


Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

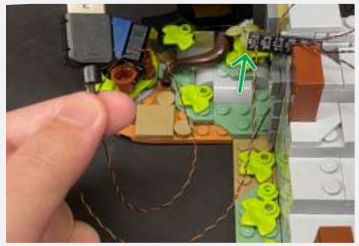
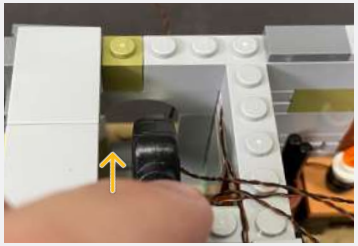
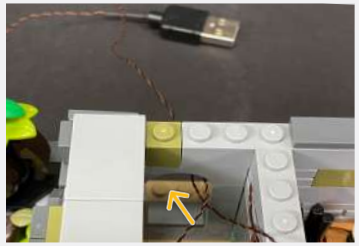



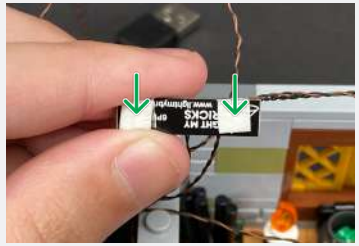


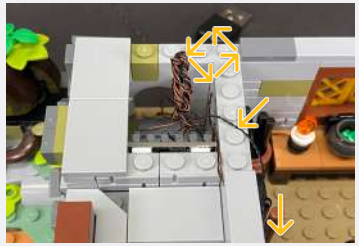




## 13

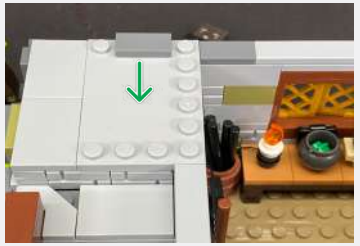





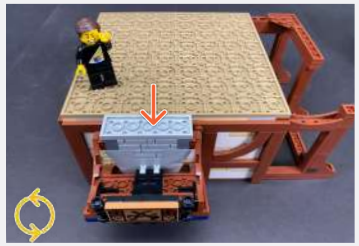


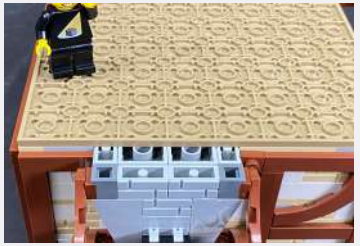
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

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 on our troubleshooting page.

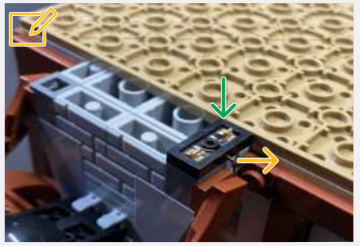


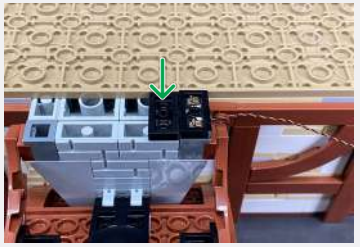
## 14



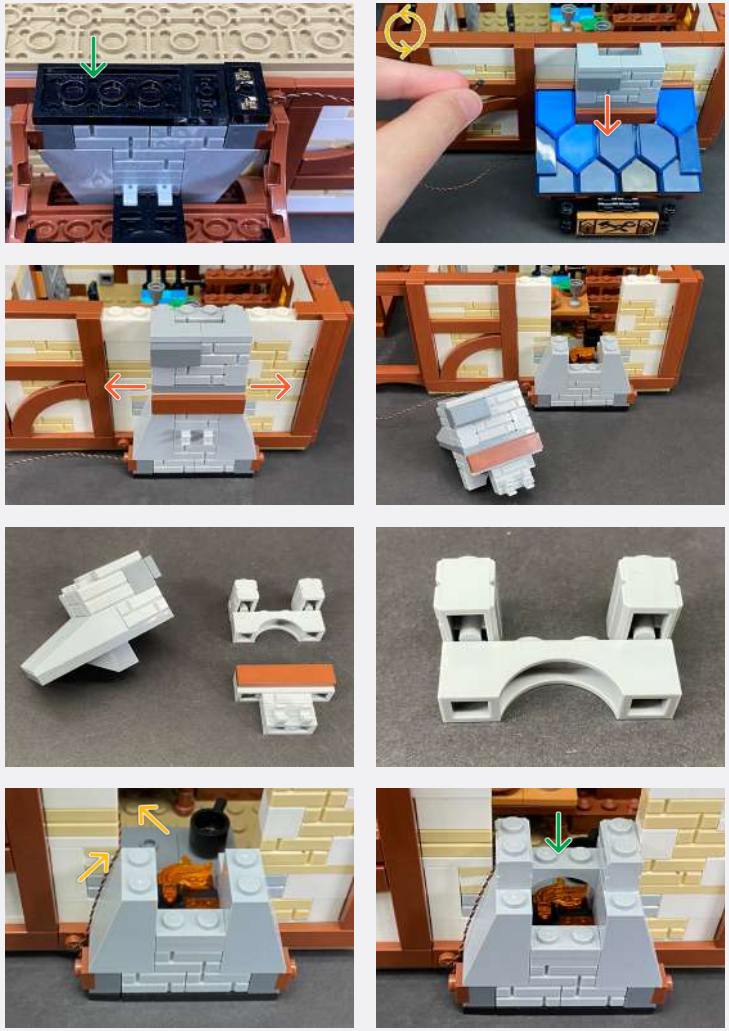



Ensure the cable for the wireless connector is facing the outside of the building.

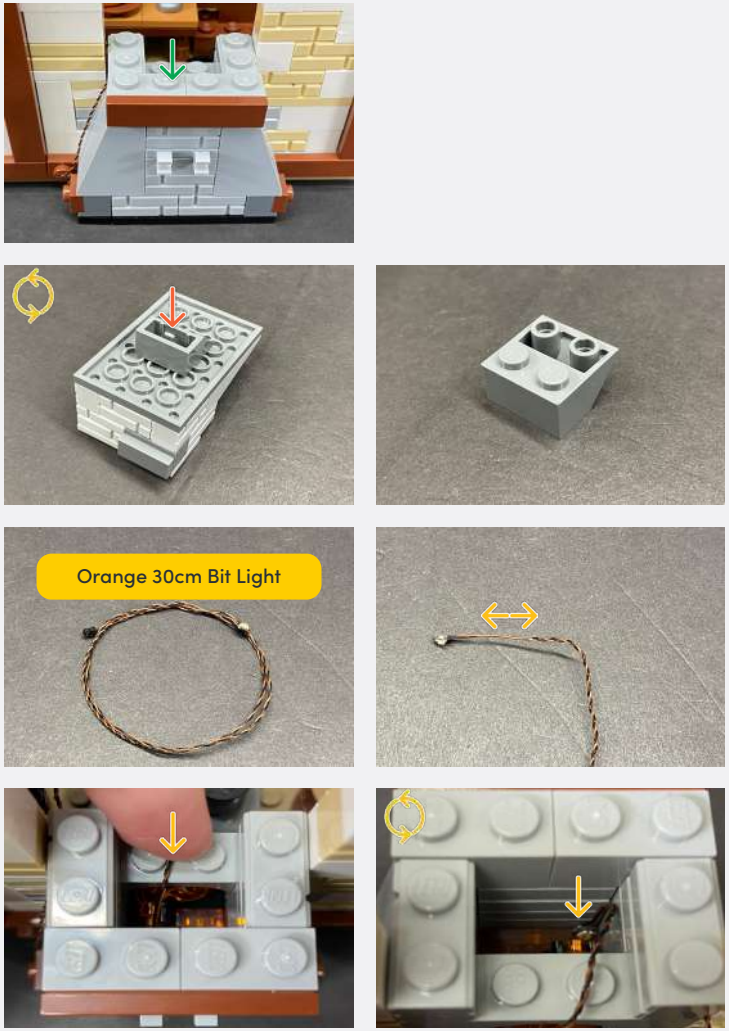


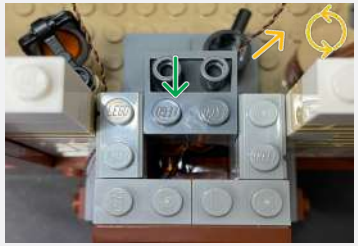

Legend: DISCONNECT · CONNECT / RECONNECT · TURN / FLIP · DIRECTIONAL · TWIST / BRAID · POWER ON TEST · NOTE ICON

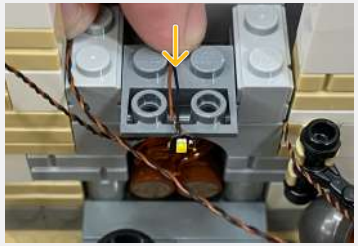


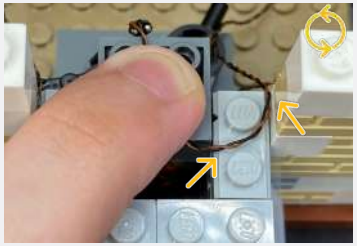
## 15

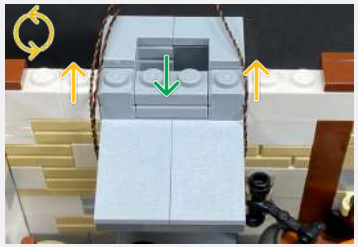



Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

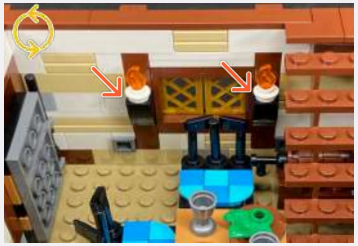


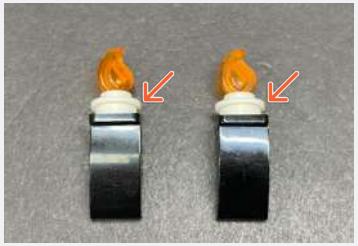



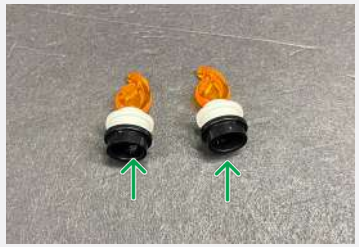




## 16

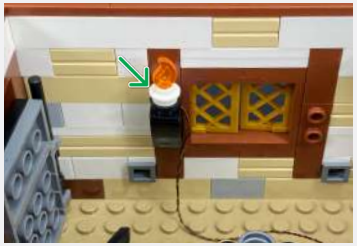


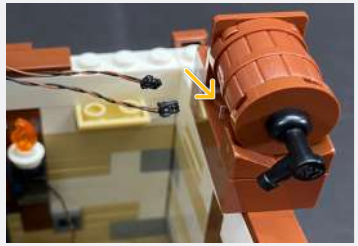


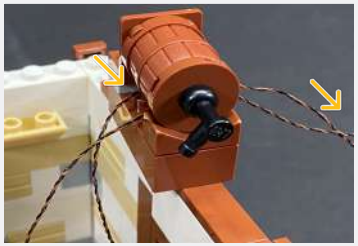



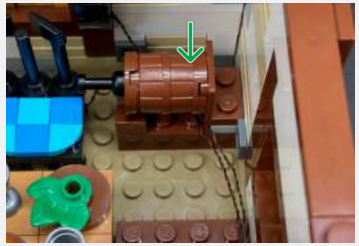
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

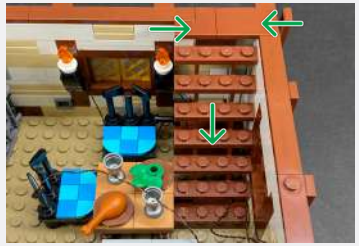








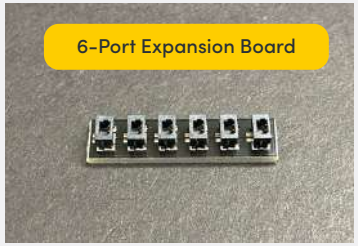


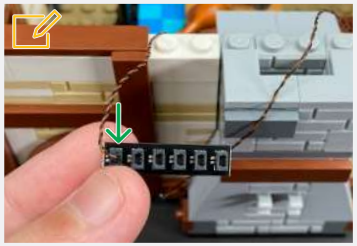


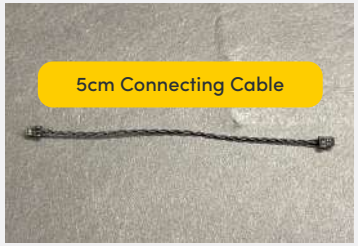
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

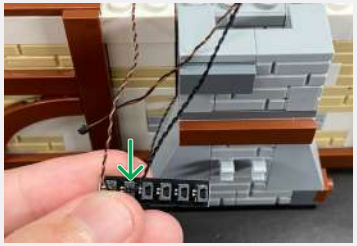
## 17

Connect the Wireless Power Connector to the 6-Port Expansion Board

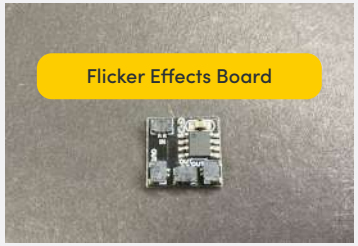


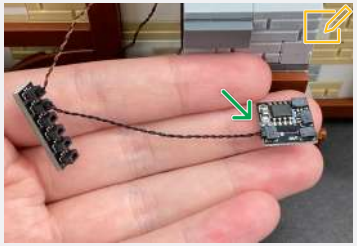





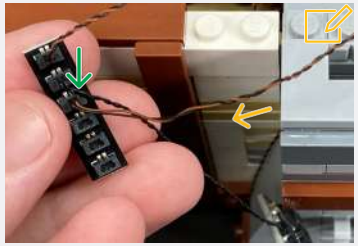



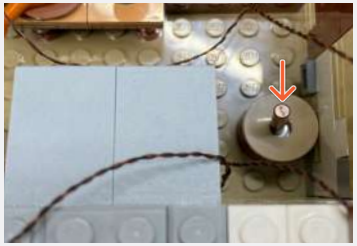
Connect the 5cm Cable to the **IN** port on the Flicker Effects Board.

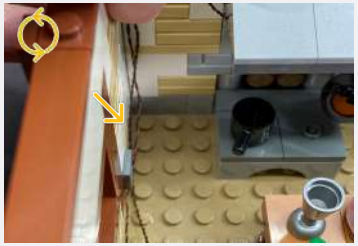


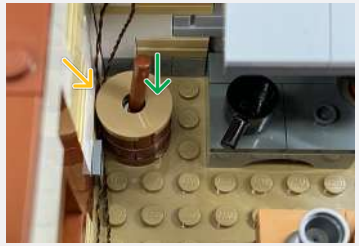



Connect the White 15cm Bit Light from step 15. to the Expansion Board

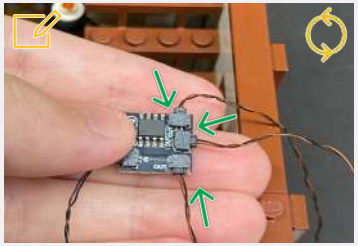


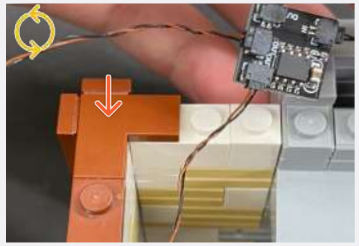


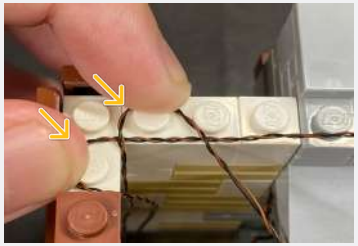


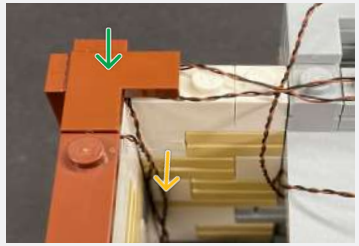


Connect the Bit Lights from the candles and fireplace to the **OUT** ports on the Flicker Effects Board

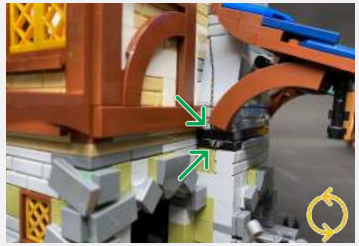








## 18



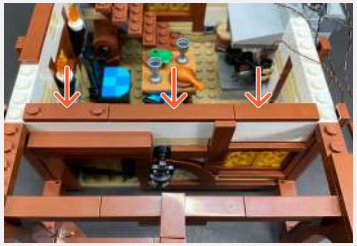
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

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 on our troubleshooting page.

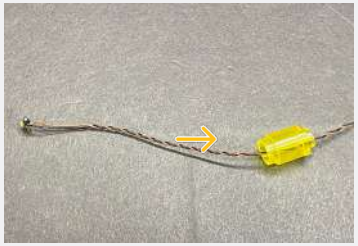
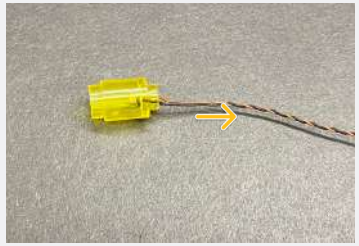
If you're having connectivity / contact issues with the wireless power connectors refer to page 34 for a handy tip.

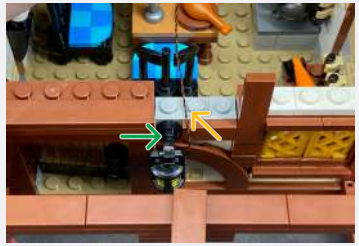
## 19

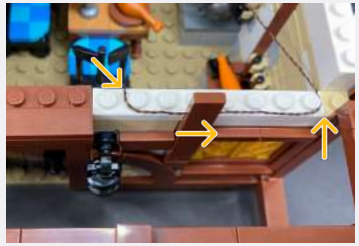


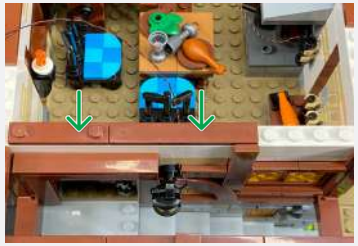


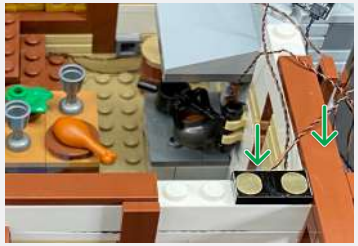


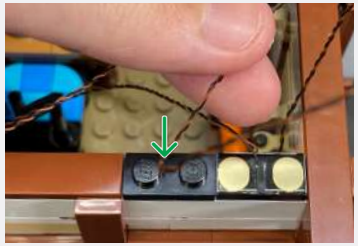


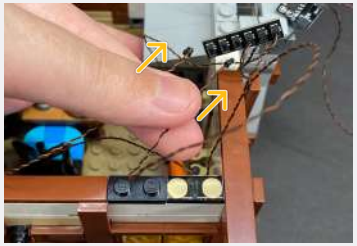
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON



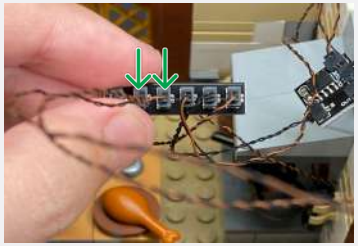


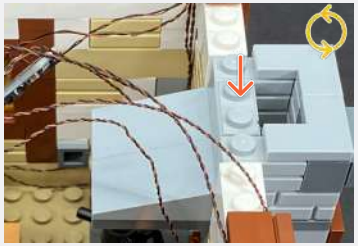


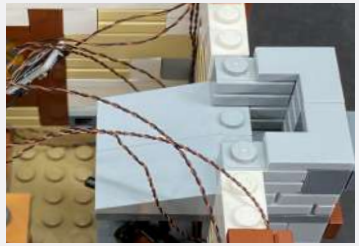



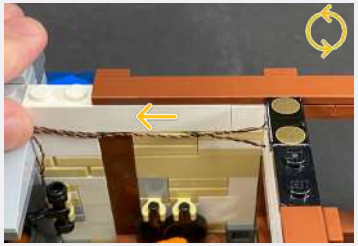


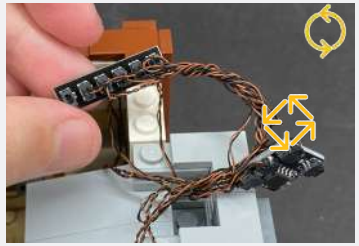
## 20

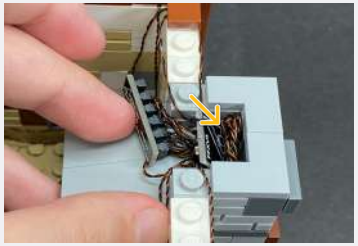


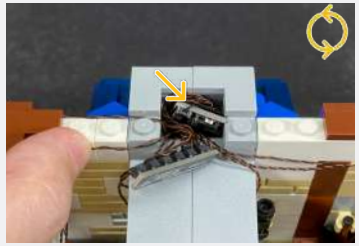






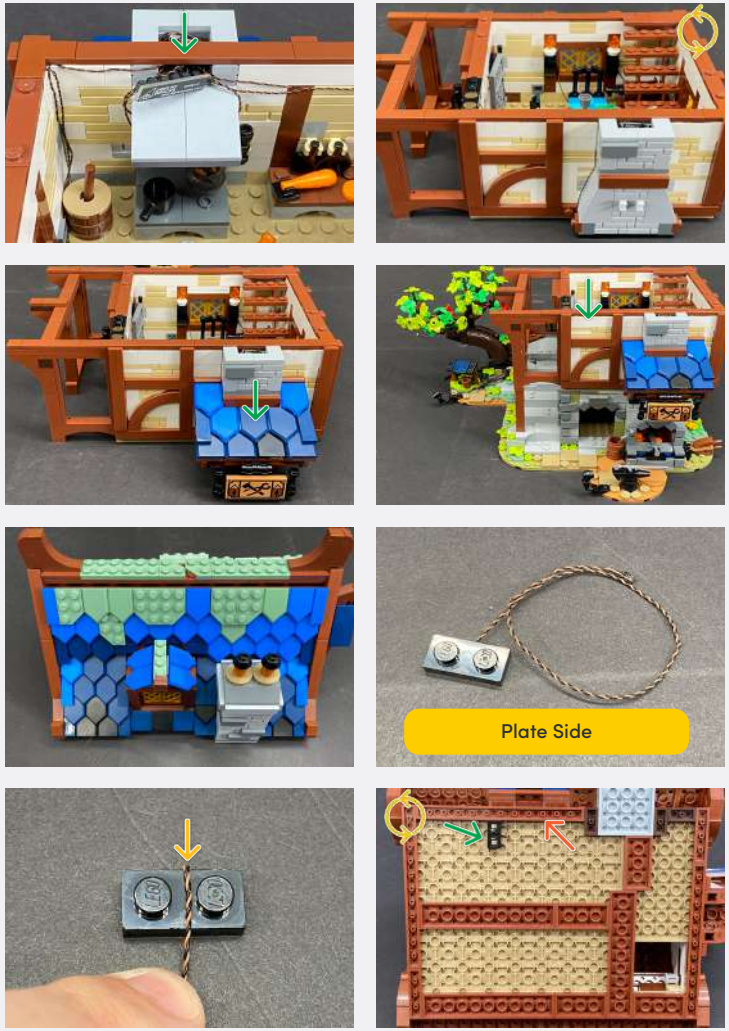






Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

## 21

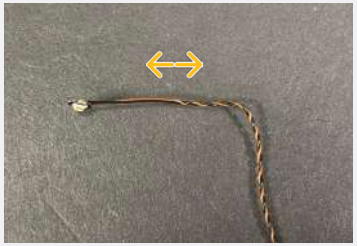


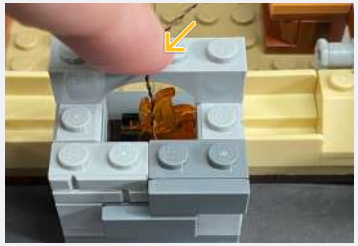

## 22

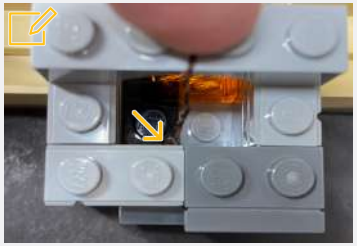

## 23

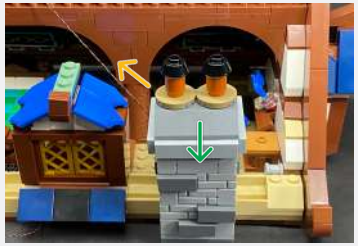
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

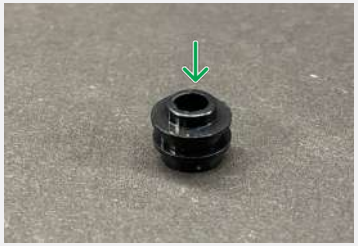
Ensure the LED is placed behind and facing the toward the flame piece.

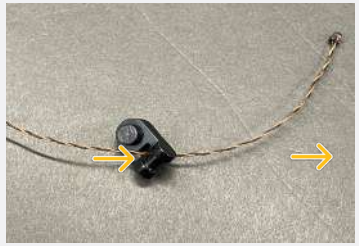



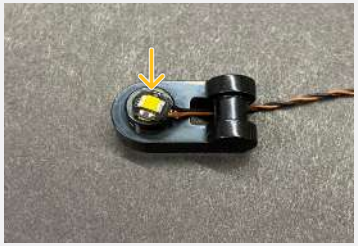


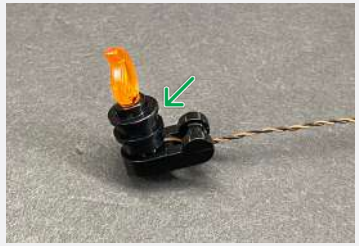


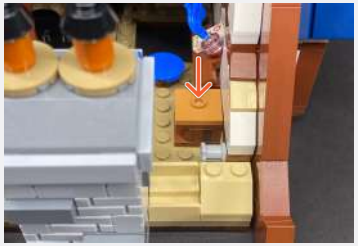


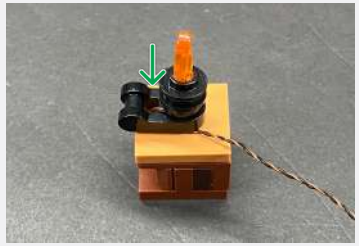



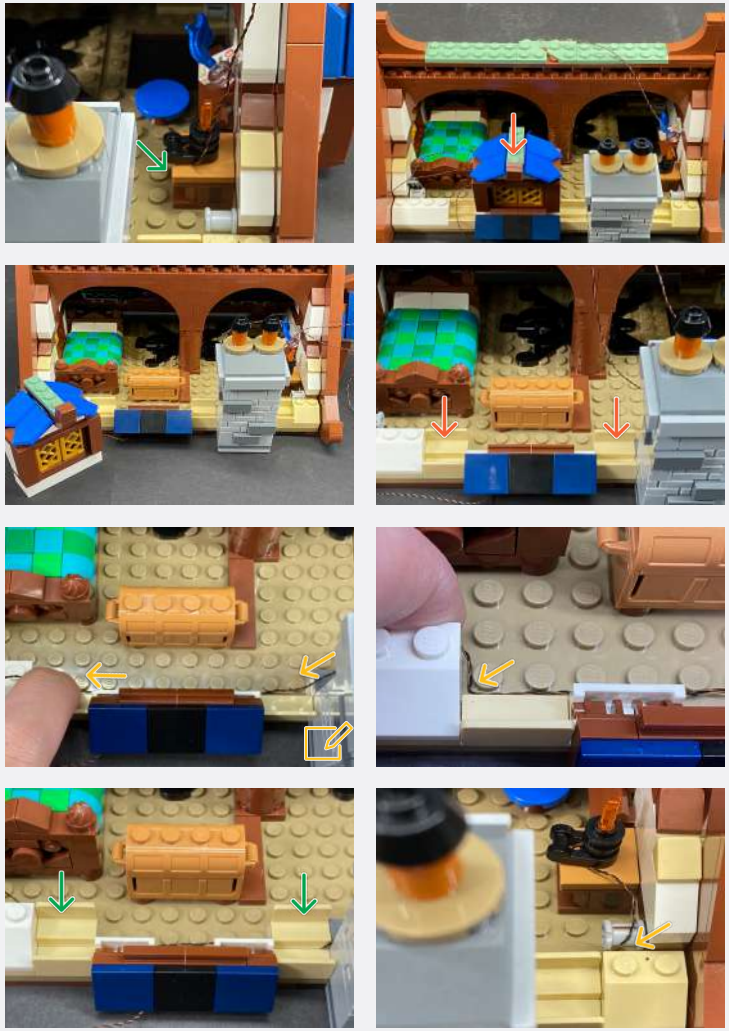








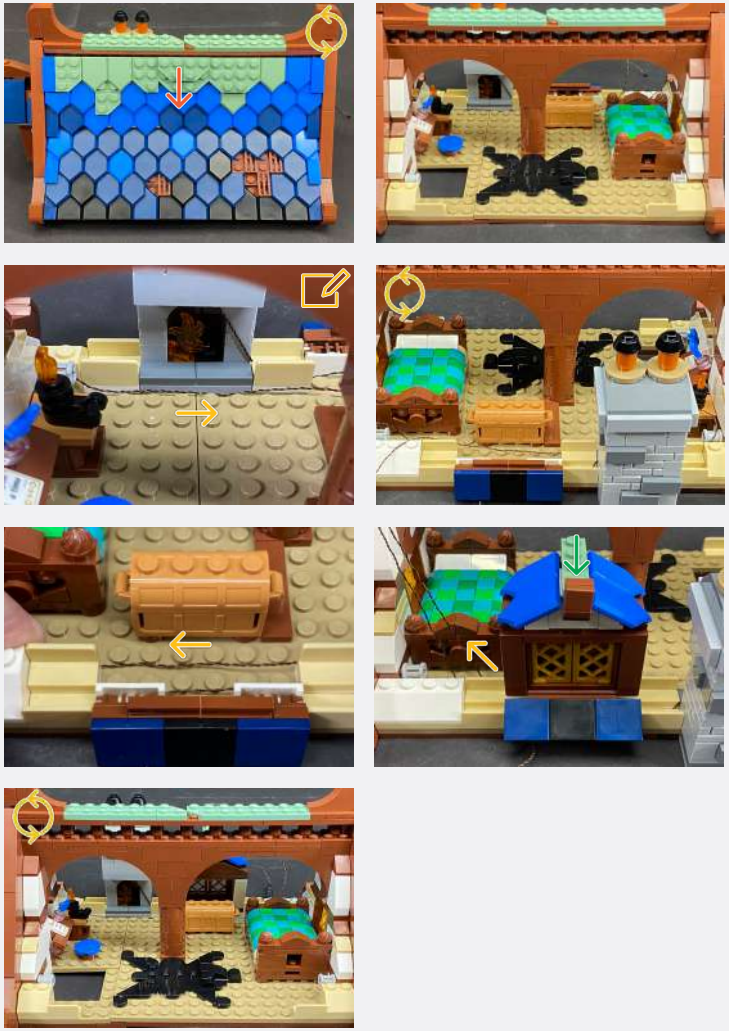
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON



Pull the Bit Light cable from the Fireplace across to the left.

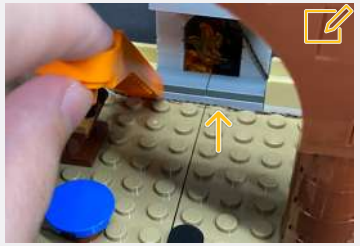
## 24

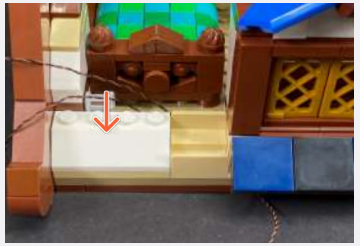
Pull the Bit Light cable from the candle across to the right.

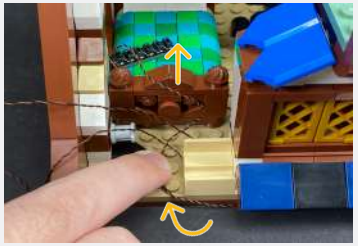


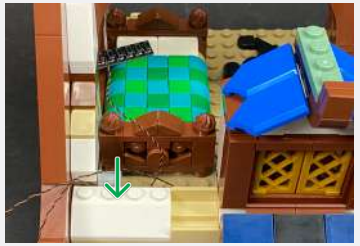
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

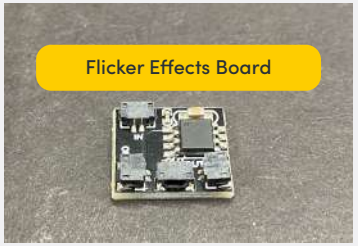
Use the LEGO tool (Brick Seperator) to neaten/tuck-in the bit light wire





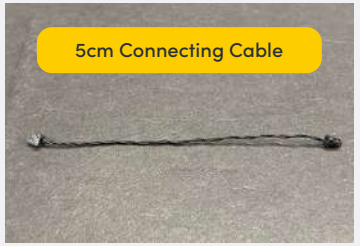


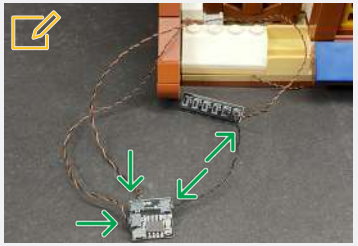





Connect the 2 Bit Lights to the **OUT** ports on the Flicker Effects Board

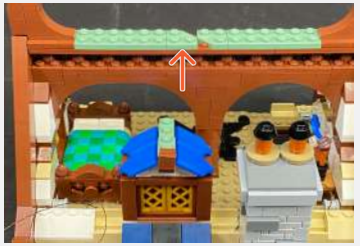
Connect the Flicker Effects Board to the Expansion Board via the 5cm Connecting Cable

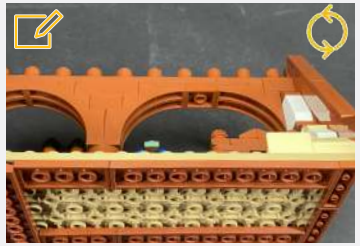


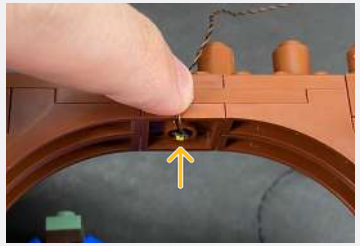
## 25

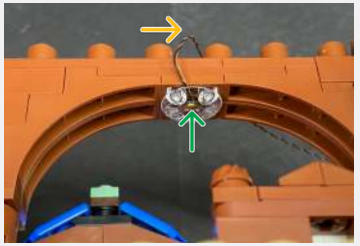
Turn/flip the Top floor with the chimney side facing the down

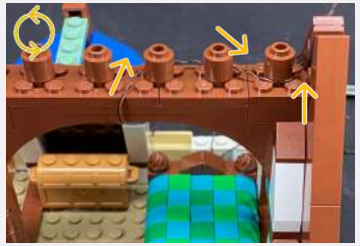






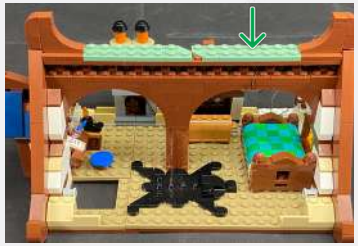


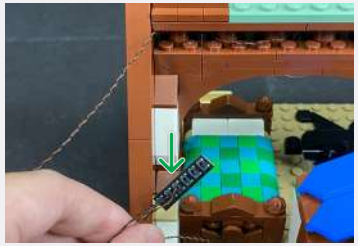
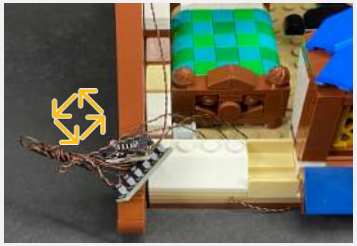




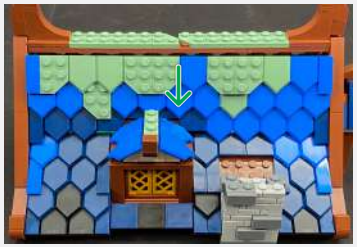
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

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 on our troubleshooting page.



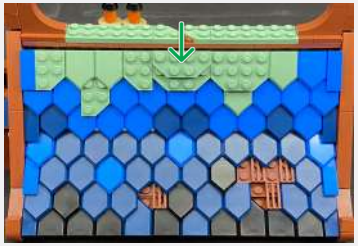



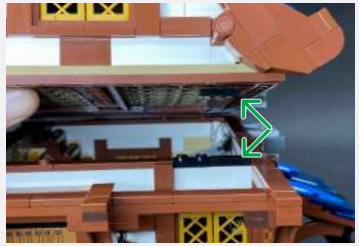




**26**







If you're having connectivity / contact issues with the wireless power connectors refer to page 34 for a handy tip.

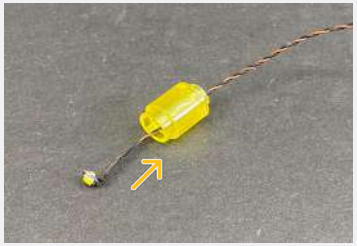
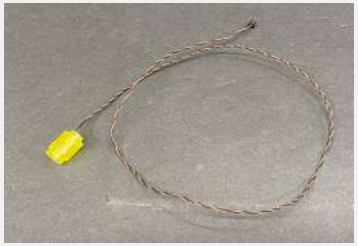
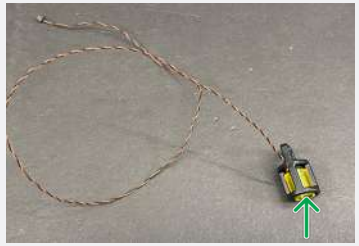
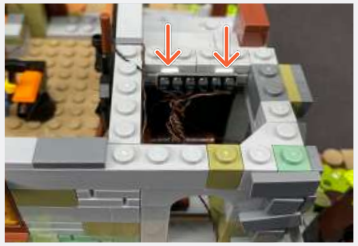
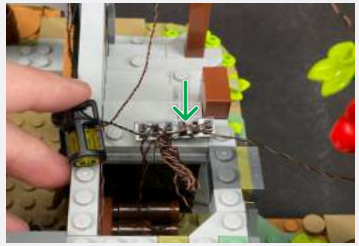
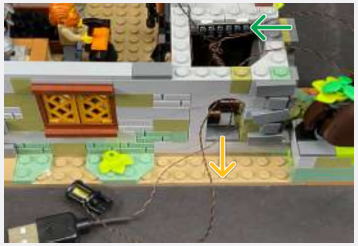
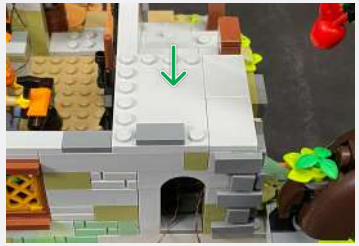

Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

## 27







**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 on our troubleshooting page.

## 28

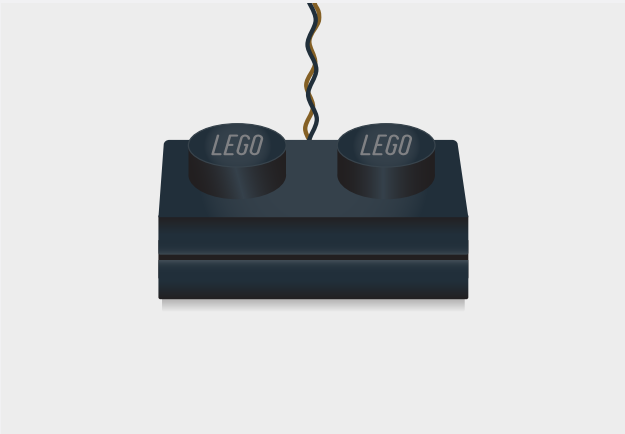
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

# FINAL PRODUCT

This finally completes installation of the Light My Bricks Blacksmith Medieval 21325 Light Kit.

# Wireless Power Connectors Install Tip

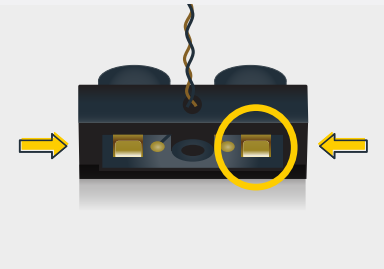
**If you're having connectivity / contact issues with the Wireless Power Connectors, try the following tip to help resolve the issue.**

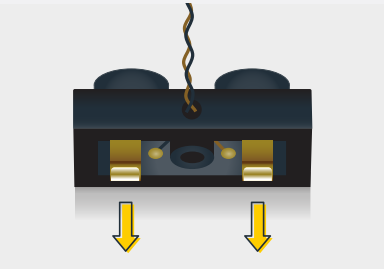


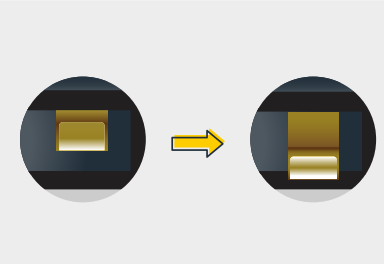

## Pull the terminal contacts further out.

Use a pair of tweezers to gently pull out both terminal contacts from the plate.

This will ensure that both plate and tile connectors are can easily make contact.







# 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.**

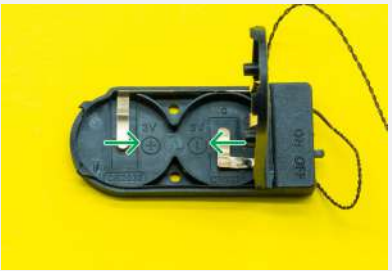
**If the batteries have no power, replace the batteries.**

**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

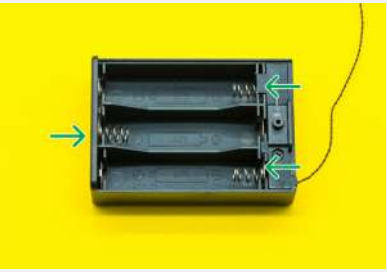
## Check For Cr2032 Batteries Using The Round Battery Pack

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.

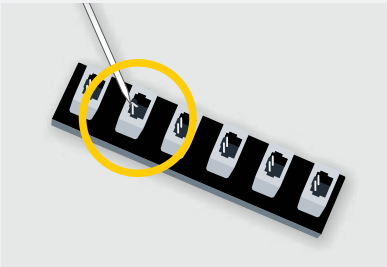
# Troubleshooting

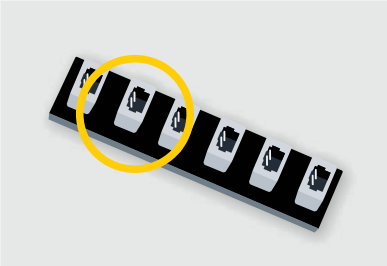
## Check Your Expansion Board Ports/ Strip Light Ports / Effects Board Ports

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.

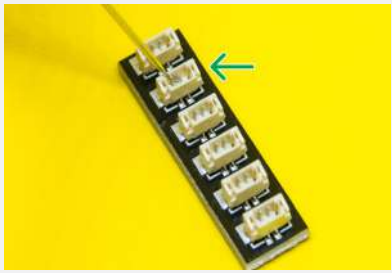


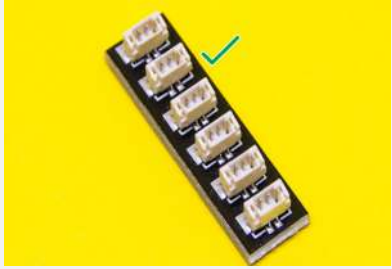


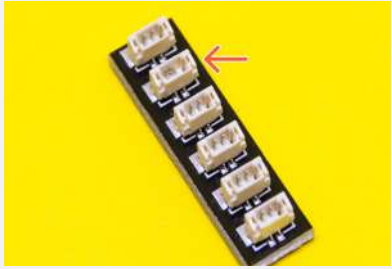
A short circuit can also result in overheating of the board, cable or batteries. If you suspect a short circuit, DISCONNECT POWER IMMEDIATELY Batteries can fail, catch fire, or even explode if left connected to a short circuit for too long.

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**

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

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