

# LEGO® LOOP COASTER #10303 LIGHT KIT INSTALLATION GUIDE



## **Light My Bricks**



# LEGO LOOP COASTER 10303 INSTALLATION GUIDE

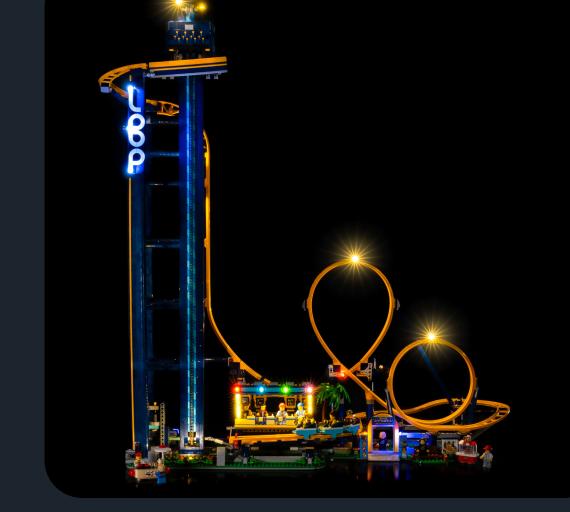
Hi There!

We're here to help you get started on the LEGO Loop Coaster 10303 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:**



- 21 x White 30cm Bit Light\*
- 1x Cool White 30cm Bit Light
- 1 x Red & Blue 15cm Bit Light
- 1 x Orange & Green 15cm Bit Light
- 2 x Rotating Bit Light
- 12 x Warm White 30cm Large Bit Light\*
- 3 x Cool White 30cm Large Bit Light



- 2 x 2-Port Expansion Board
- 8 x 6-Port Expansion Board
- 2 x 8-Port Expansion Board\*
- 1 x Gun Effects Board
- 2 x Rotating Sequence Effects Board
- 20 x Adhesive Squares



- 4 x 5cm Connecting Cable\*
- 2 x 15cm Connecting Cable
- 7 x 30cm Connecting Cable
- 3 x 50cm Connecting Cable\*



1x USB Power Cable

(Power Source not Included)

#### **ASSORTED BRICKS:**



- 15 x Round Plate 1x1 w/ Open Stud Black
- 13 x Mod Plate 1x1 w/ Handle Black
- 10 x Arm Skeleton, Bent with Clips (Horizontal Grip) Black
- 13 x Plate 1x2 MW Handle On End Black
- 3 x Arm Skeleton, Bent with Clips at 90 degrees Black
- 1 x Round Brick 1x1 Trans Red
- 2 x Round Plate 1x1 Trans Red
- 1 x Round Plate 1x1 Trans Dark Blue
- 1 x Round Plate 1x1 Trans Green
- 1 x Round Plate 1x1 Trans Pink
- 1 x Round Plate 1x1 Trans Clear
- 2 x Plate 2x8 Black
- 1 x Plate 2x2 W Rounded Bottom Trans Clear
- 1 x Cone 1 x 1 w/ Top Groove Trans Orange
- 1 x Bracket 1x1 Light Grey

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

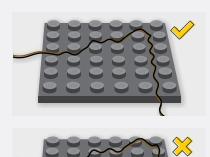


#### **Contents**

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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

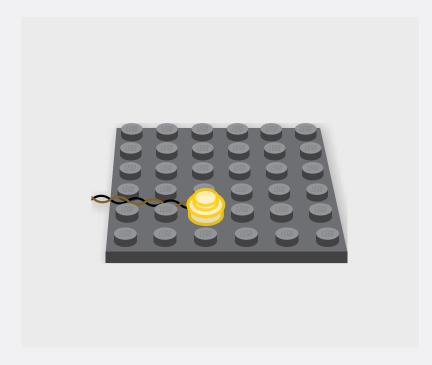
Take extra care when inserting the micro connectors to micro ports of Micro Expansion Boards. Connecting Micro Bit Lights to Micro Expansion Boards is similar to connecting lights and cables to Strip Lights. With the expansion board facing up, ensure the side of the connector with the wires exposed is 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.

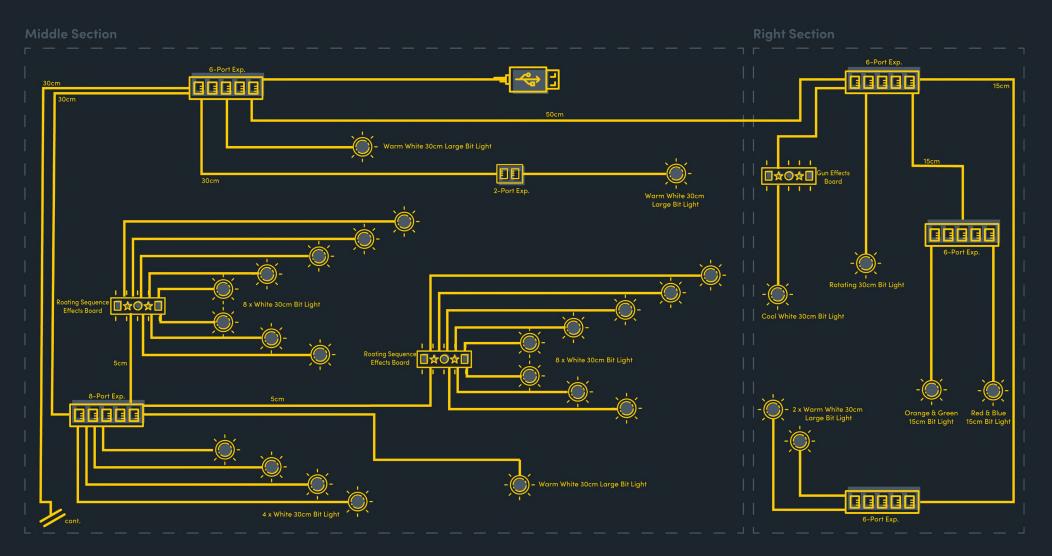








# BLUEPRINT





# **BLUEPRINT**

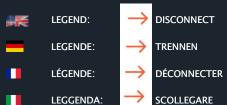
# EEEEE 2-Port Exp. 3 x Cool White 30cm Large Bit Light Warm White 30cm Large Bit Light





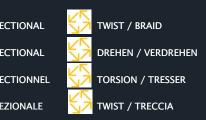
#### **INSTRUCTIONS**

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.





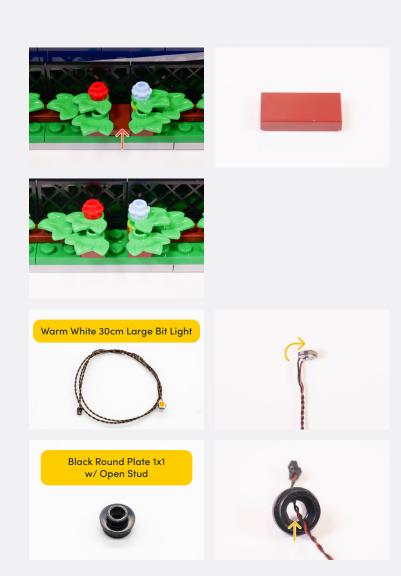




















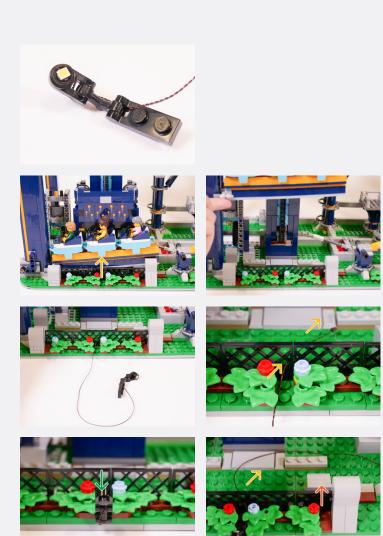




















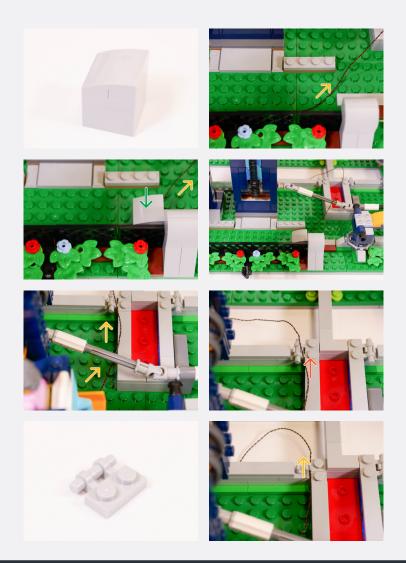


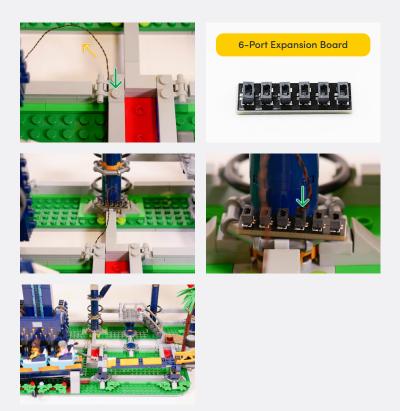


















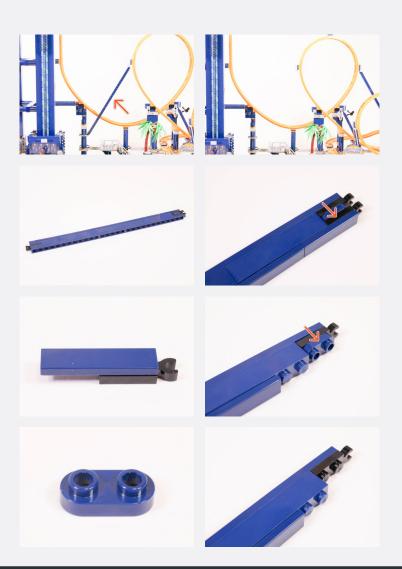


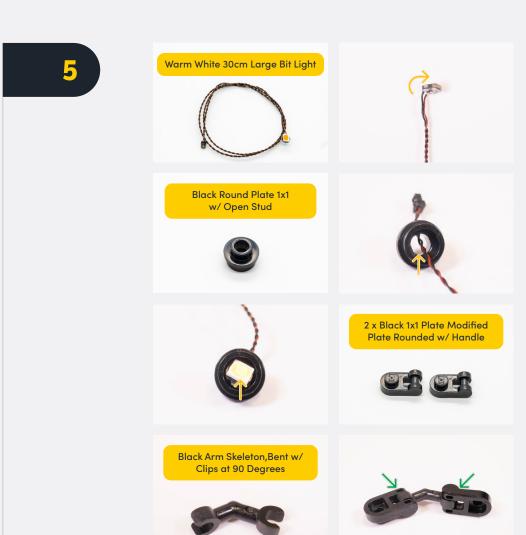
























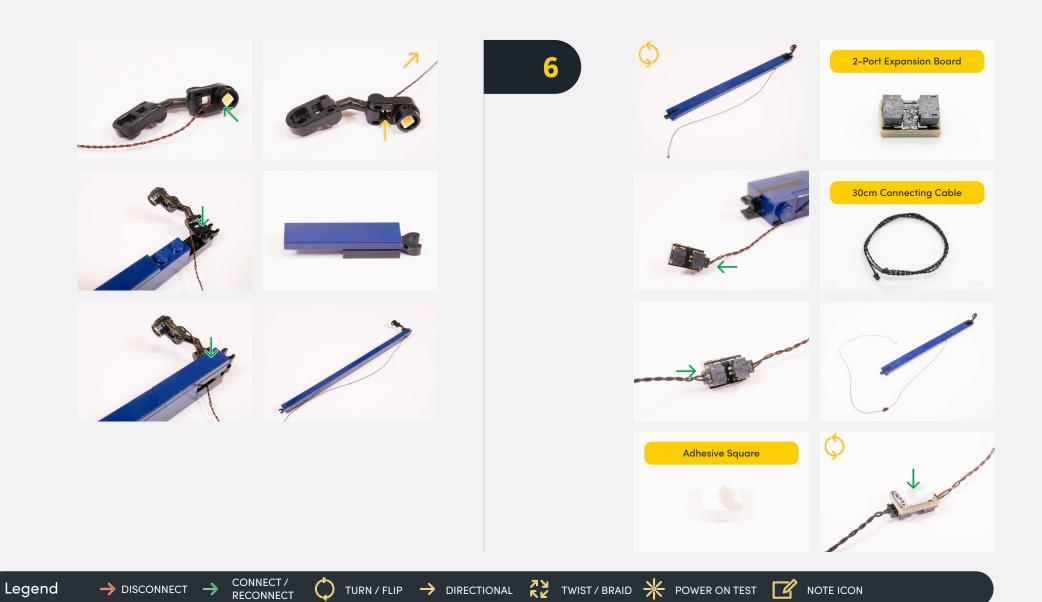




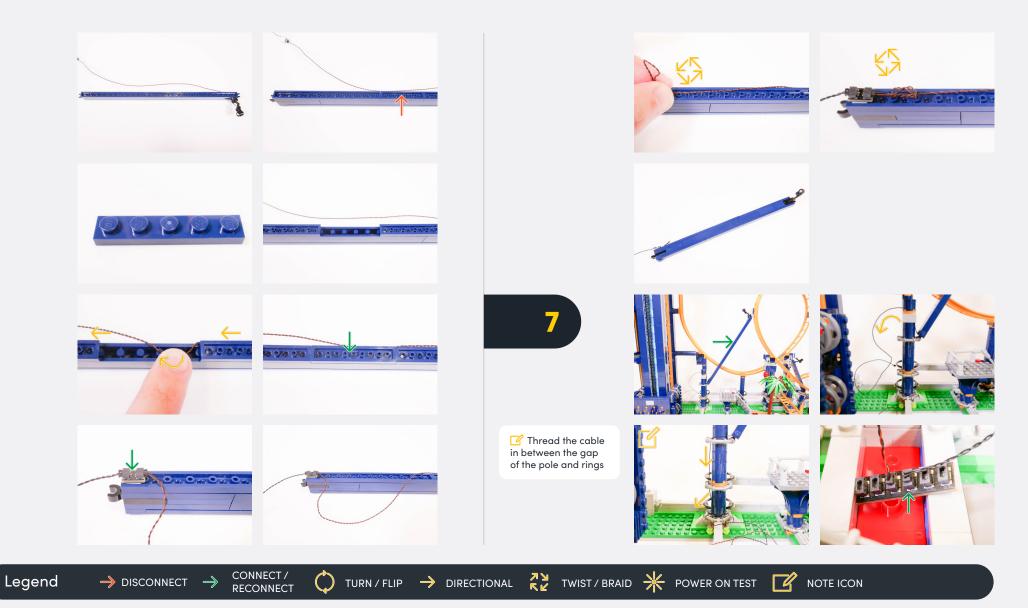
























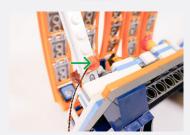
















 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT





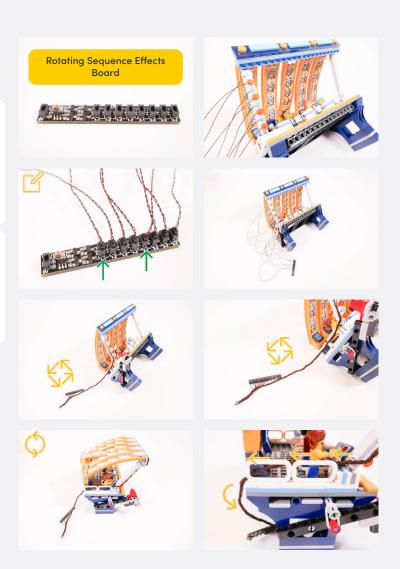


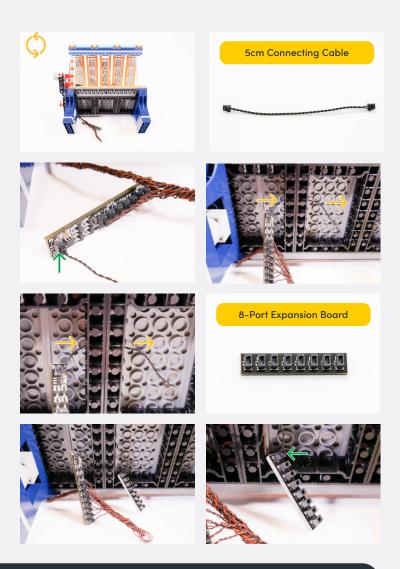




Connect all the lights underneath the Orange plates to Output 1 starting from the bottom of the pillar (e.g. first Orange to port 1-1, second Orange to port 1-2)

Connect all the lights underneath the Blue plates to Output 2 starting from the bottom of the pillar (e.g. first Blue to port 2-1, second Blue to port 2-2)

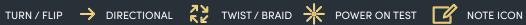
















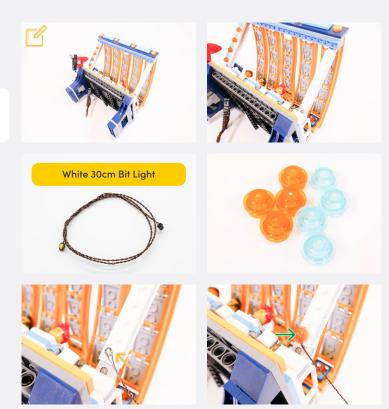




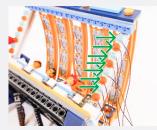


10

The same process is repeated on the right side

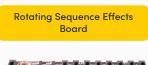


Repeat this for the rest of the pillar as shown



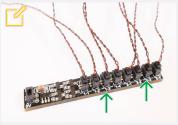
Connect all the lights underneath the Orange plates to Output 1 starting from the bottom of the pillar (e.g. first orange to port 1-1, second orange to port 1-2)

Connect all the lights underneath the Blue plates to Output 2 starting from the bottom of the pillar (e.g. first Blue to port 2-1, second Blue to port 2-2)



















Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT



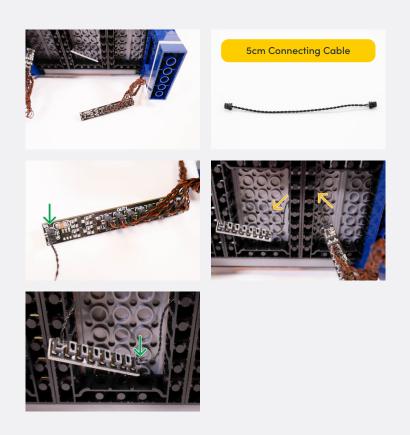
TURN / FLIP -> DIRECTIONAL R TWIST / BRAID R POWER ON TEST NOTE ICON

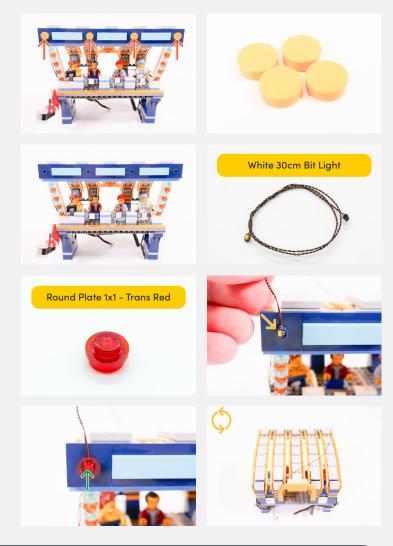




























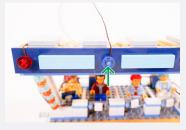


















→ DISCONNECT →

CONNECT / RECONNECT



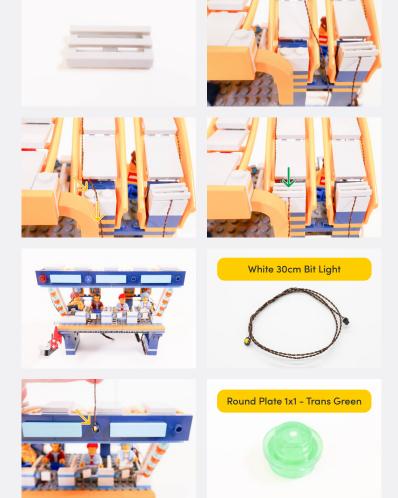
TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON

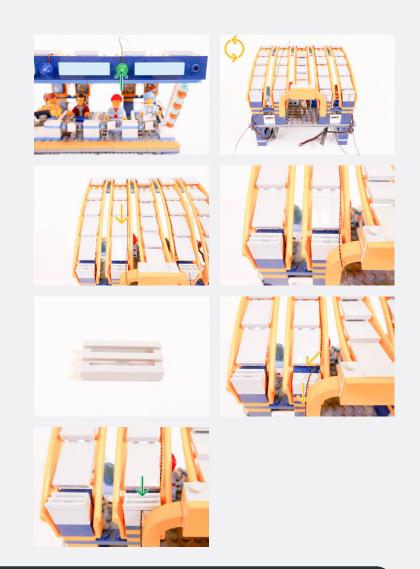












**13** 











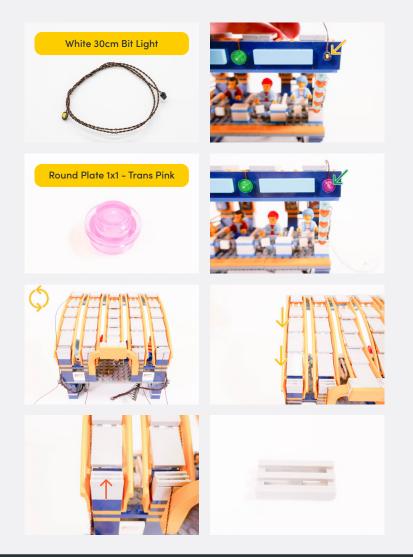


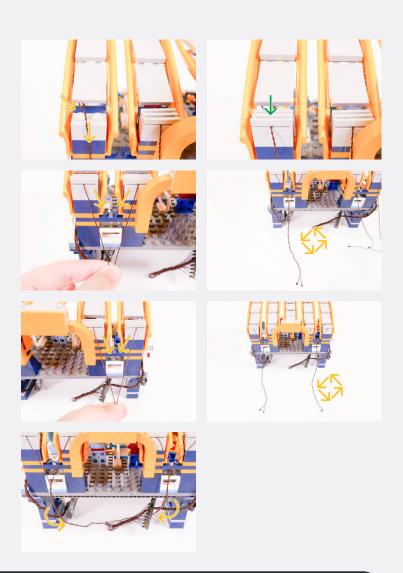


















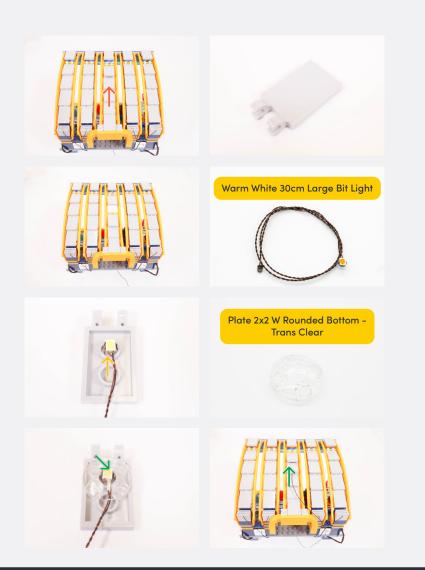










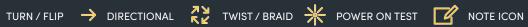






CONNECT / RECONNECT











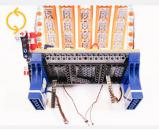


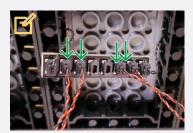




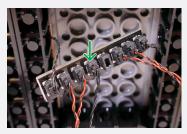










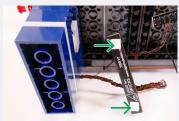


Connect the Large Bit Light from step 15 the to the 8-Port Expansion Board

















Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT





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



**16** 

Connect the four Bit Lights beneath the Trans Coloured Round Plates to the 8-Port Expansion

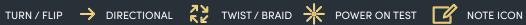
Board





→ DISCONNECT →

CONNECT / RECONNECT



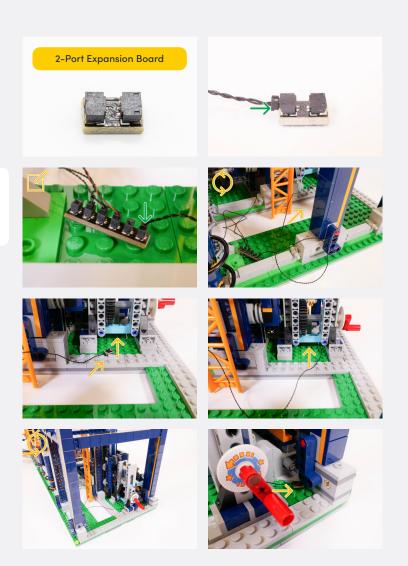


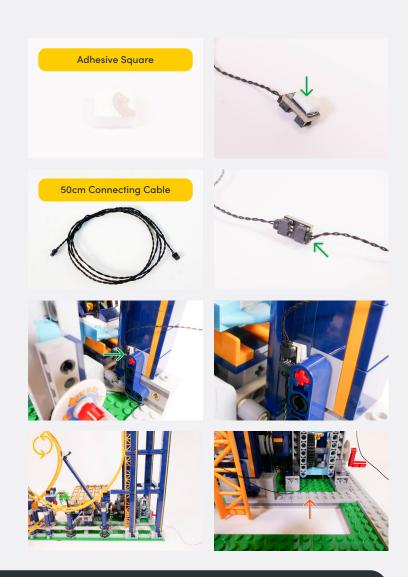
Twist all the cables from the 8-Port Expansion



Connect the the other end of the

30cm Connecting Cable to the 6-Port **Expansion Board** 





Legend

→ DISCONNECT →

CONNECT/ RECONNECT



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

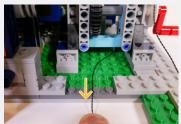


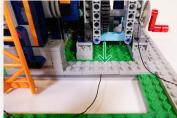


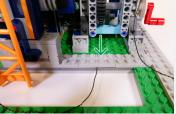




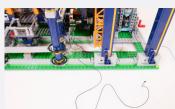


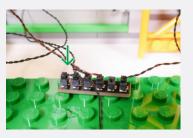


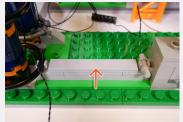


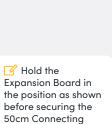




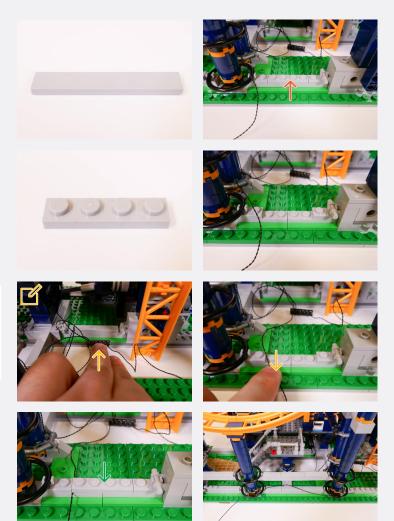








Cable beneath the



Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT









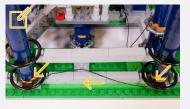


**19** 



🗹 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.

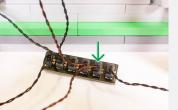
Thread the 50cm Connecting Cable through the rings as shown

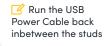


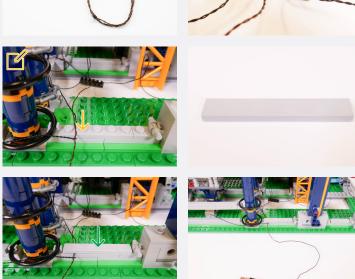


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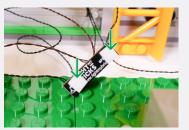




















Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT



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



Connect the other

Wall Adaptor, or USB to AA Battery Pack (sold separately)

end to a 5V USB Power Bank, 5V USB

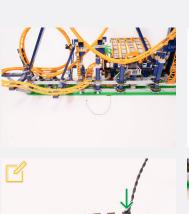




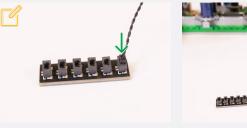


Take the other end of the 50cm Connecting Cable from Step 19









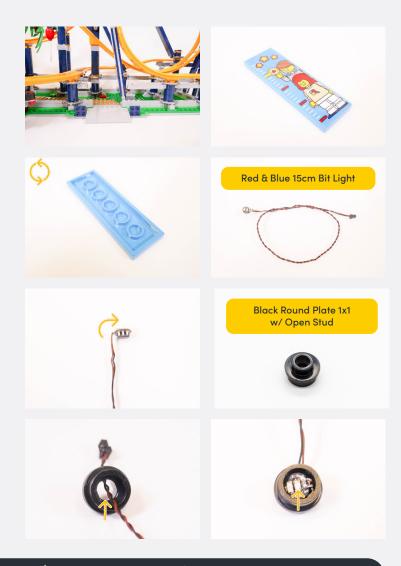










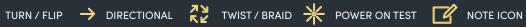










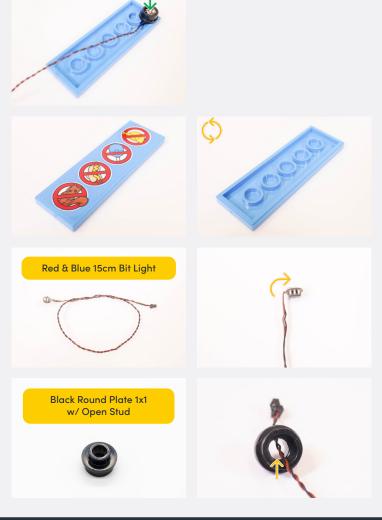


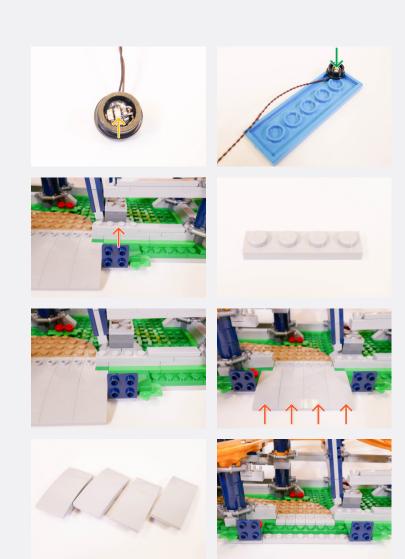


























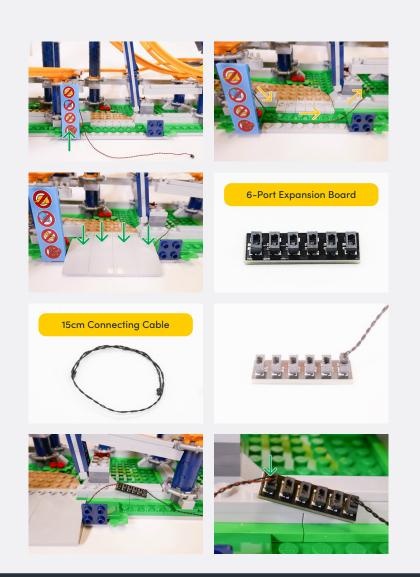


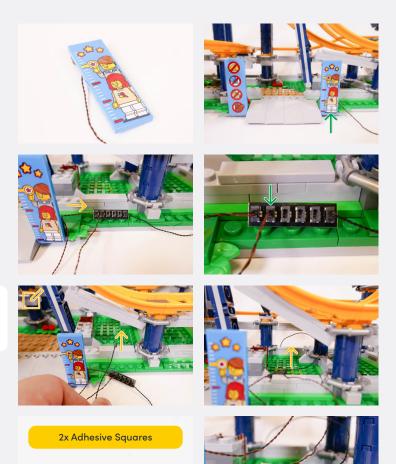


















CONNECT/ RECONNECT







Thread the 15cm Connecting Cable towards the back of

the set

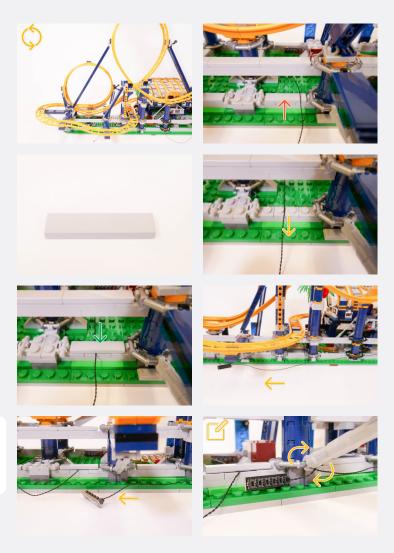






Connect the other end to a 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)





Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

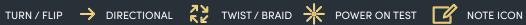
CONNECT / RECONNECT







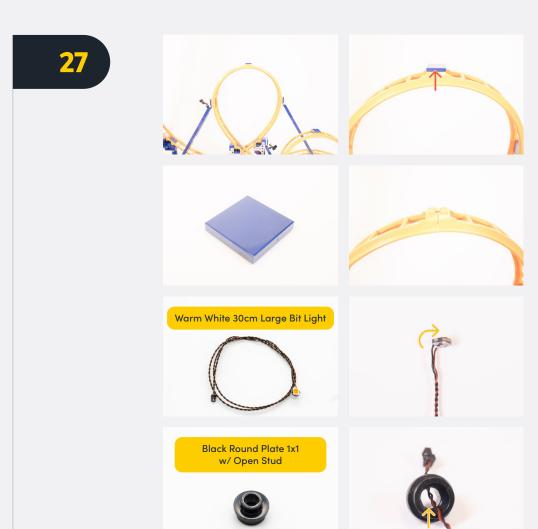
Twist the cable from the Expansion Board around the pole several times to shorten the length











 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT



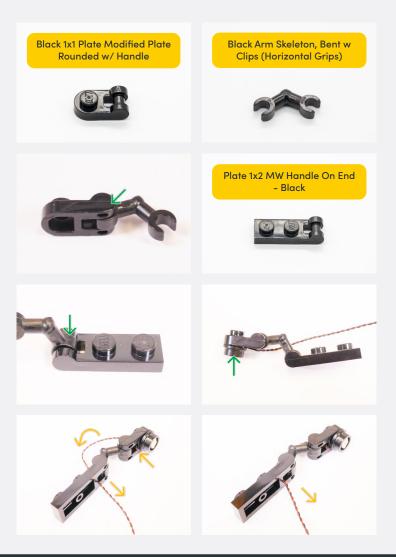


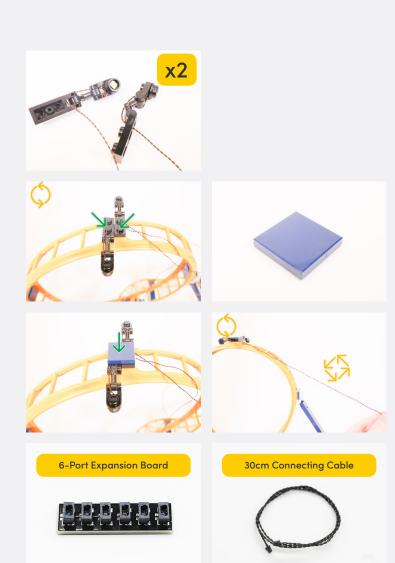








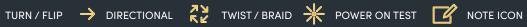










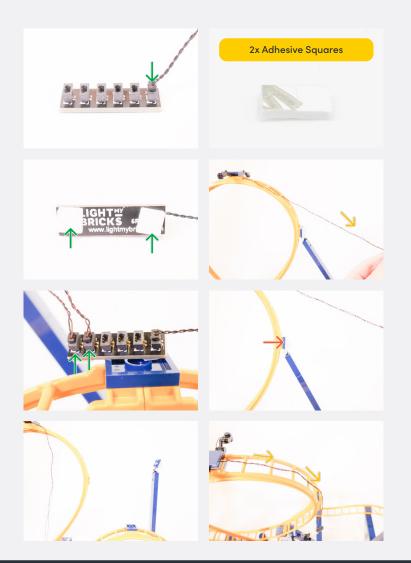


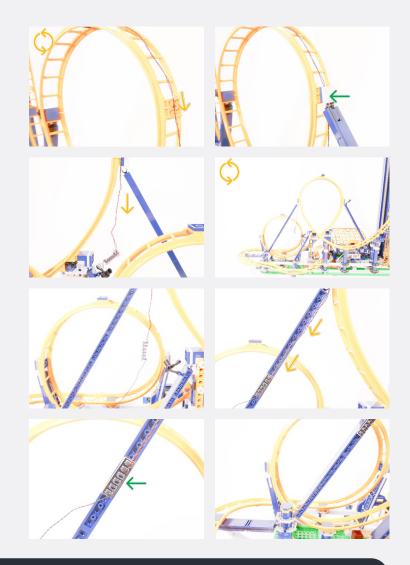








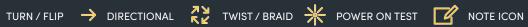














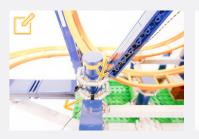


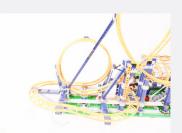






Thread the Connecting Cable through the rings as shown







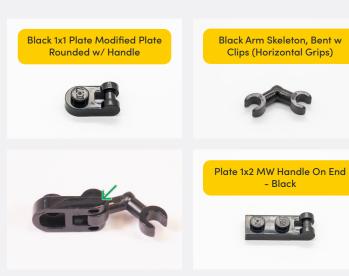
















- Black





Legend

→ DISCONNECT →

CONNECT/ RECONNECT



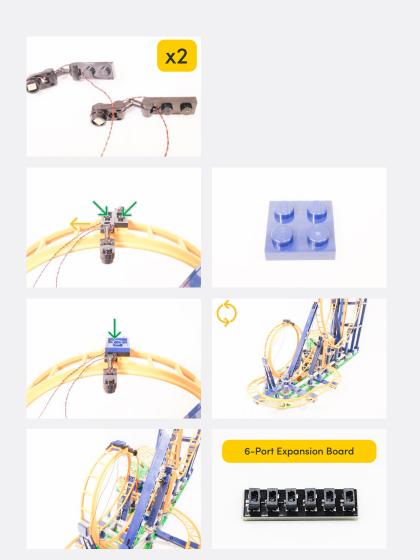


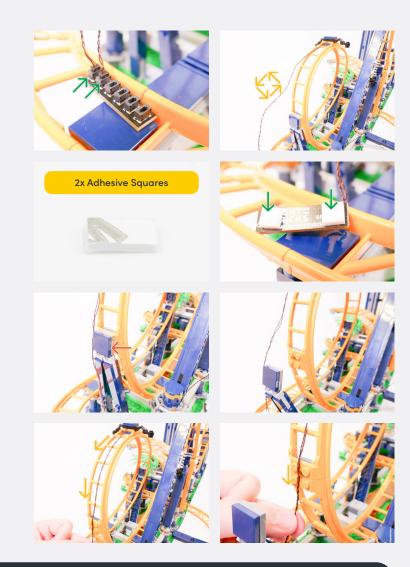






















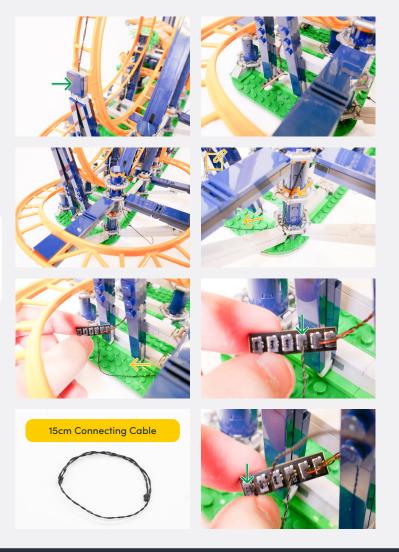


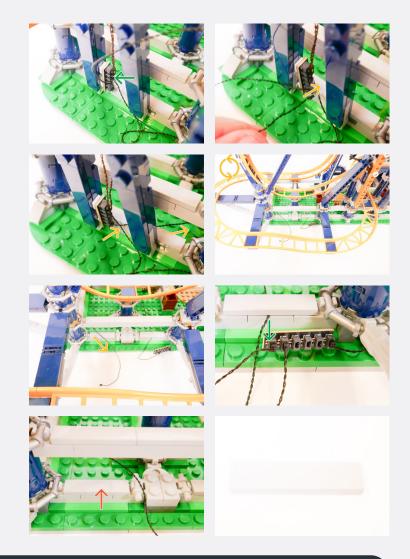
TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON





Take the Connecting Cable from Step 28 and connect it to the 6-Port Expansion Board





Legend



CONNECT/ RECONNECT





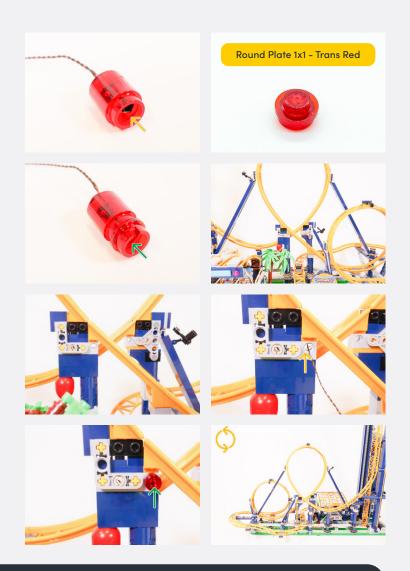




























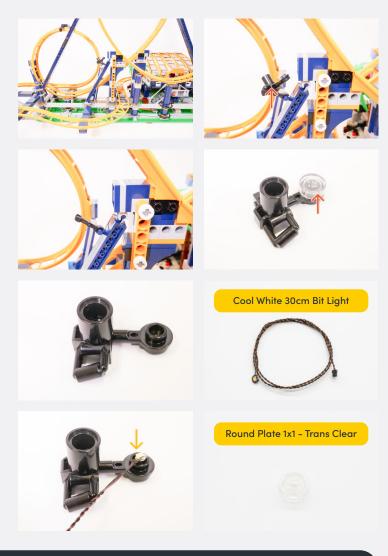
Thread the Rotating Bit Light beneath the track and through the ring on the pillar

Wrap the
Rotating Bit Light
cable from around

the pole several times to shorten the

length





Legend

→ DISCONNECT →

CONNECT / RECONNECT



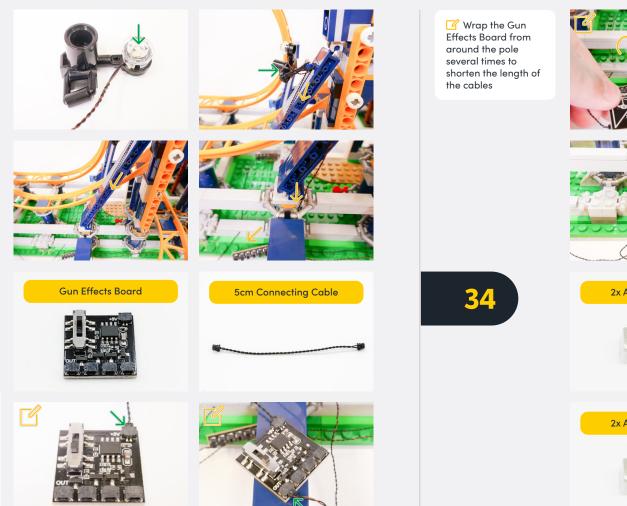
TURN / FLIP -> DIRECTIONAL R TWIST / BRAID R POWER ON TEST R NOTE ICON

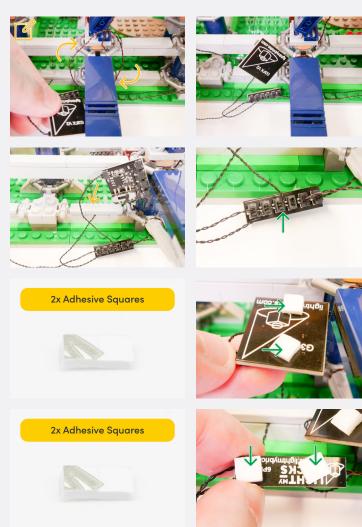












Legend

Connect the 5cm Connecting Cable to

the '+5v' port of the Gun Effects Board Connect the Cool White 30cm Bit Luight from the camera to the 'OUT' port of the Gun Effects Board

→ DISCONNECT →

CONNECT / RECONNECT





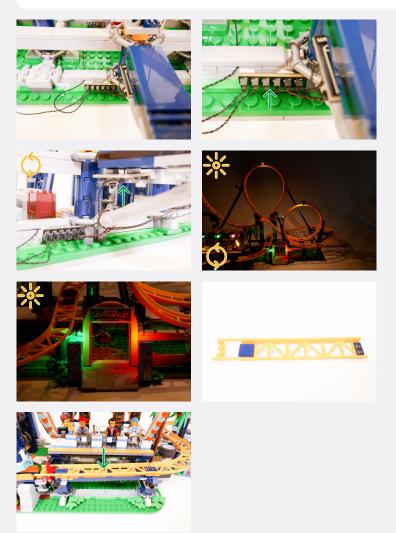




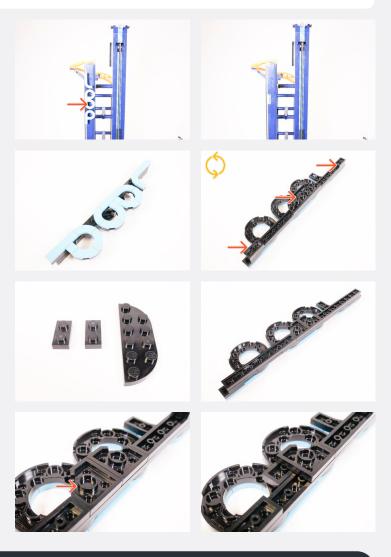




If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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





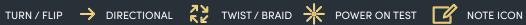


Legend

→ DISCONNECT →

RECONNECT



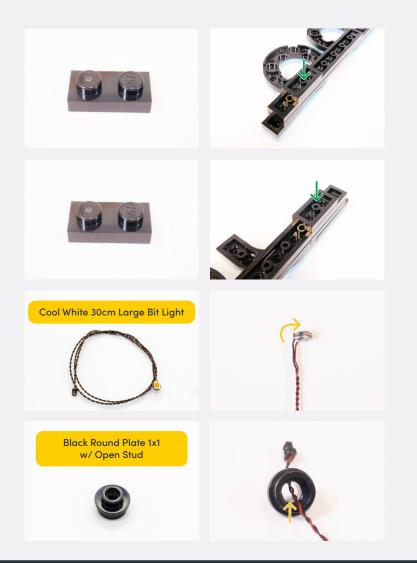


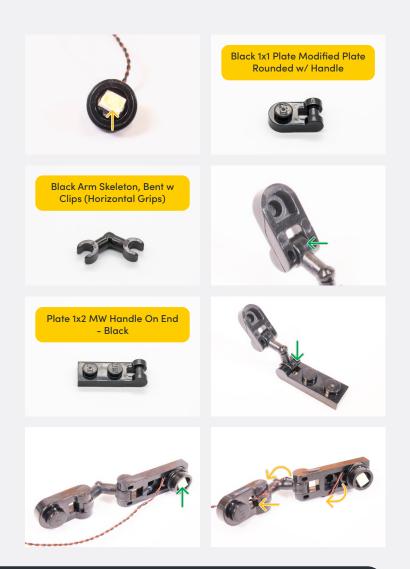








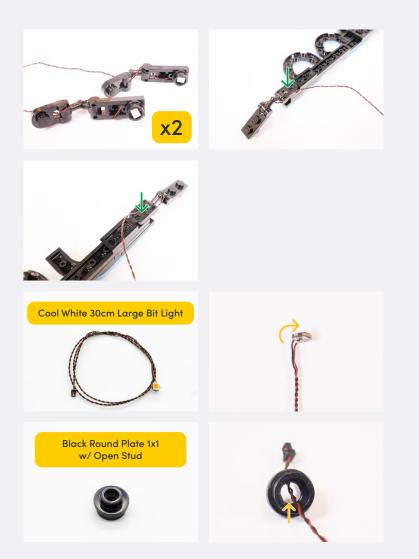


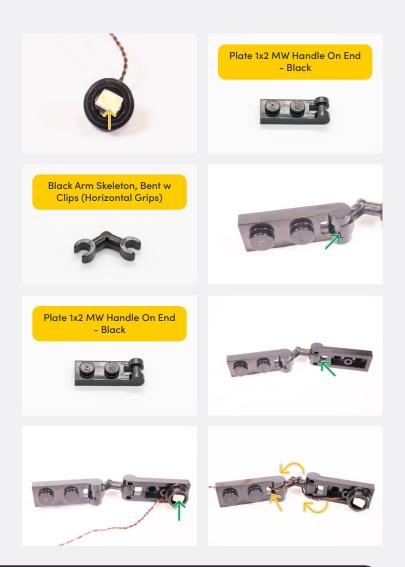






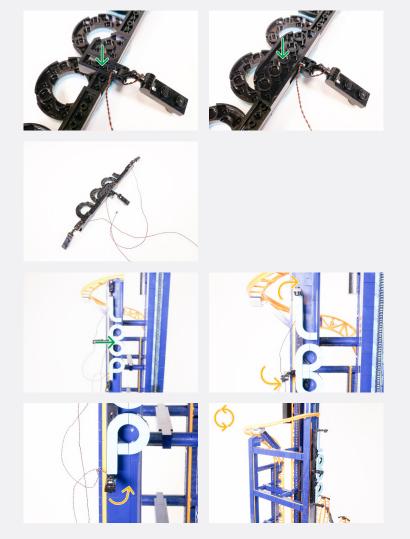






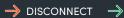


















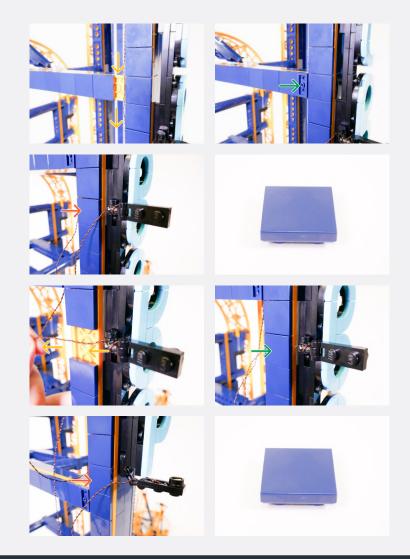


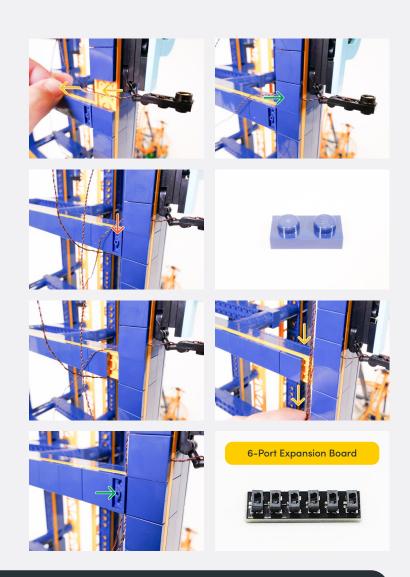








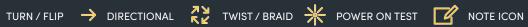










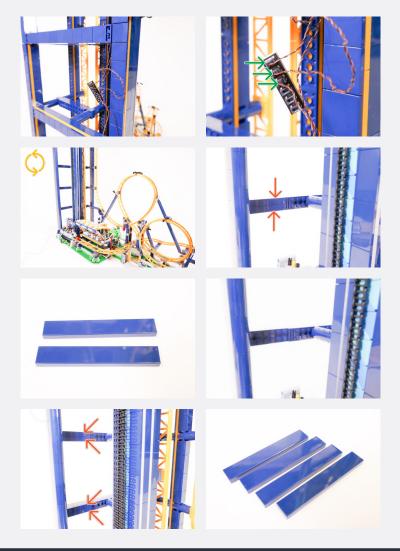




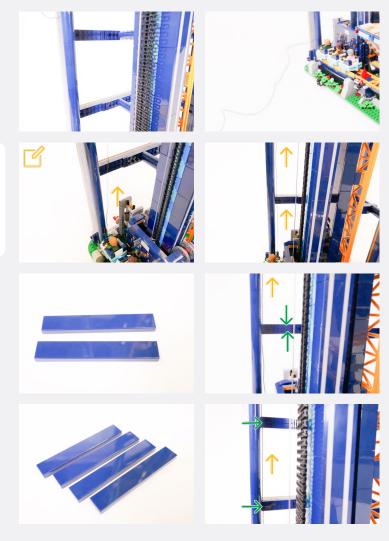






















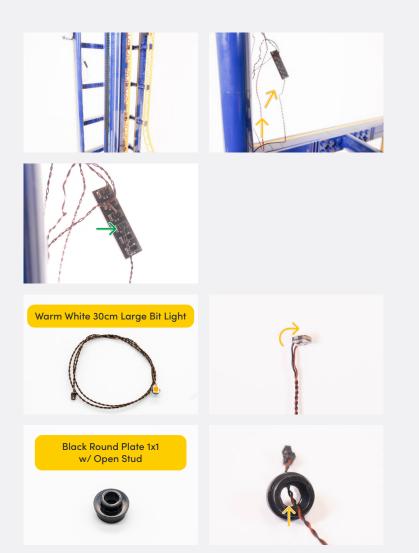


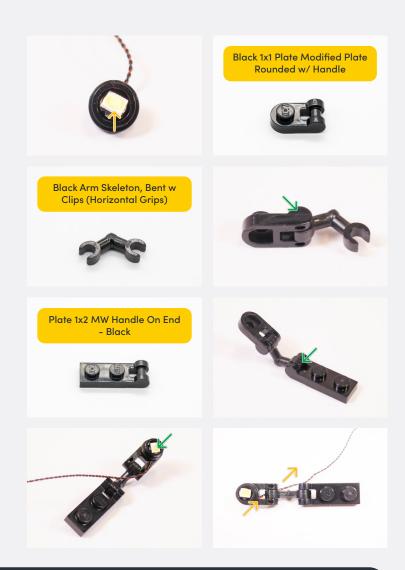




















Legend







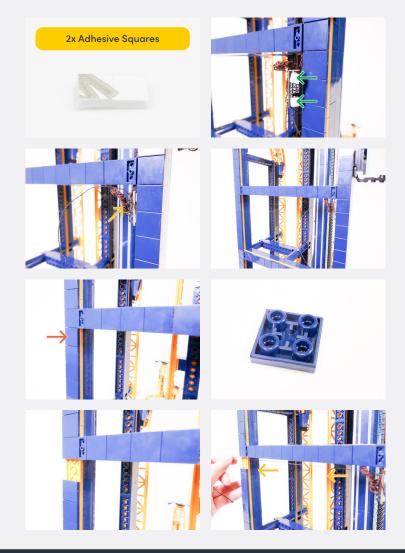


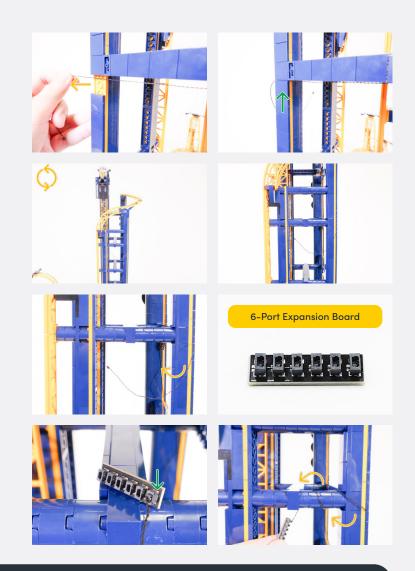






















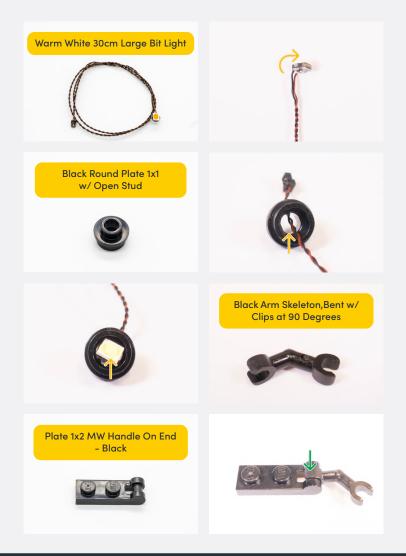


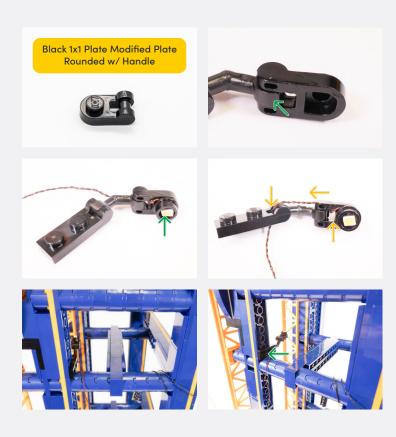






















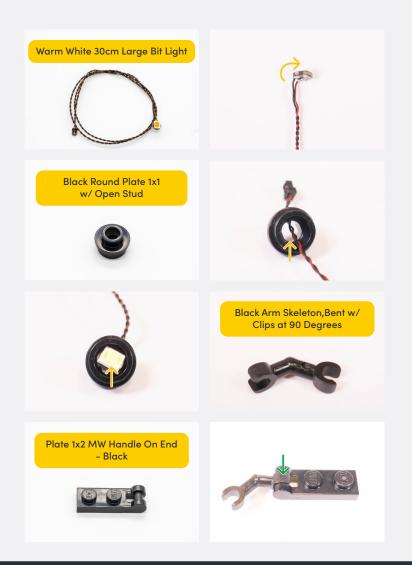


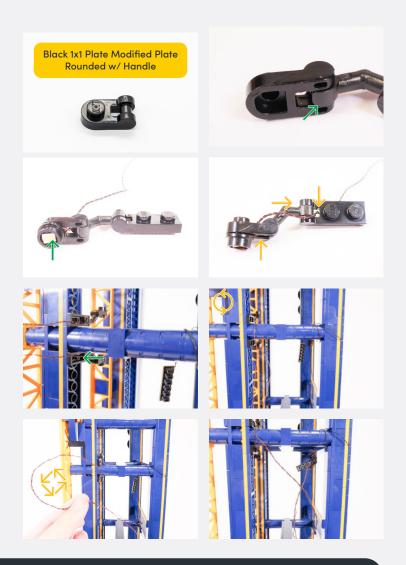














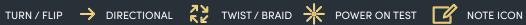








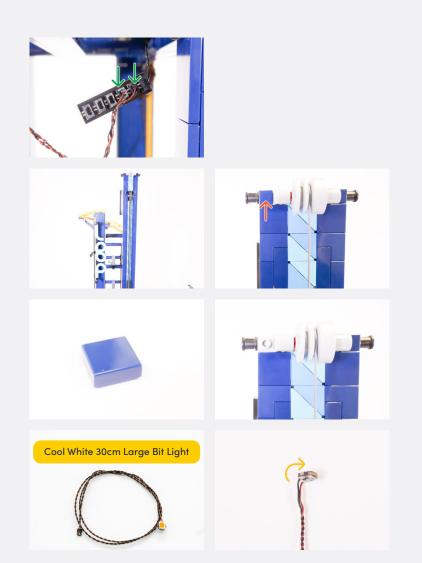


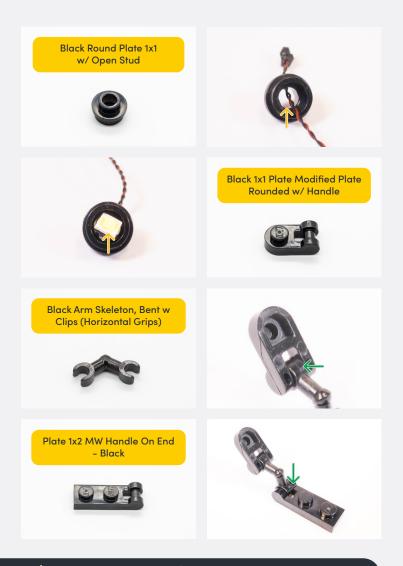
























































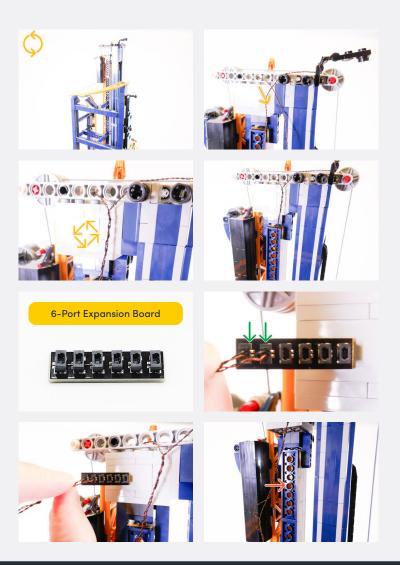
Thread the cable of the Rotating Bit Light through the hole

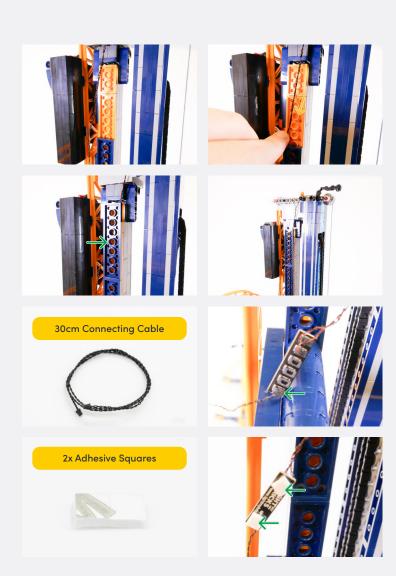


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Legend → DISCONNECT → CONNECT / TURN / FLIP → DIRECTIONAL 🐉 TWIST / BRAID 🔆 POWER ON TEST 🗹 NOTE ICON







Legend

 $\rightarrow$  DISCONNECT  $\rightarrow$ 

CONNECT / RECONNECT





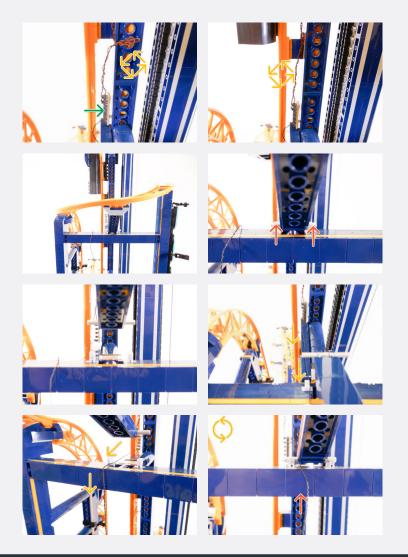
































🗹 If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing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















Legend

→ DISCONNECT →

CONNECT / RECONNECT





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

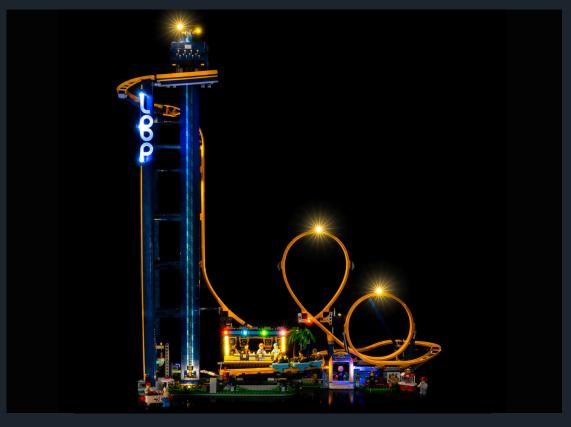






## **FINAL PRODUCT**

This finally completes installation of the Light My Bricks LEGO Loop Coaster 10303 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.

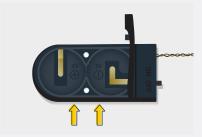
If the batteries have no power, replace the batteries.

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

support.lightmybricks.com

our online support portal.

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



lightmybricks.com