LIGHT MY BRICKS

LEGO® THE ICE CASTLE #43197
LIGHT KIT
INSTALLATION GUIDE

Light My Bricks

LEGO® THE ICE CASTLE 43197 LIGHT KIT INSTALLATION GUIDE

Hi There!

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

The Ice Castle (43197) Light Kit.

This PDF details the instructions for the LED light kit only. If you are wishing to purchase this product, please click here to view the product page.

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

Have fun and enjoy!

PACKAGE CONTENTS:

20 x Cool White 30cm Large Bit Light*
9 x Cool White 30cm Bit Light*

1x 6-Port Expansion Board
3 x 8-Port Expansion Board
1 x 12-Port Expansion Board
2 x Adhesive Squares

1 x Multi Effects Boards (3PFX)
1 x Twinkle Effects Board

2 x 5cm Connecting Cables
4 x 50cm Connecting Cable

1 x USB Power Cable
(Power Source not Included)

LEGO PIECES:

- 4 x 2x2 Plate 2x2 W Rounded Bottom - Trans Clear
- 2 x Round Plate 1x1 Open Stud - White

* Indicates 1 extra component has been included just in case!

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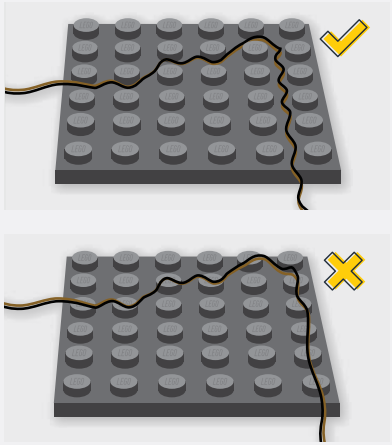
Before You Begin



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

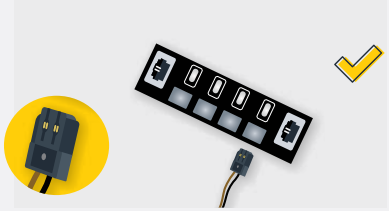
Take extra care when inserting connectors to ports of Expansion Boards. Connectors can be inserted only one way. With the expansion board facing up, look for the soldered "=" symbol on the left side of the port. The connector side with the wires exposed should be facing toward the soldered "=" symbol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

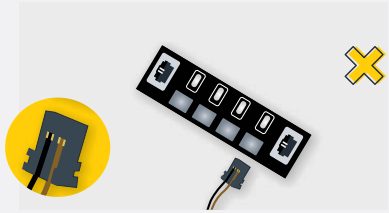
Incorrectly inserting the connector can can result in bent pins inside the port or possible overheating of the expansion board when connected.

Before You Begin

Connecting Cable Connectors To Strip Lights

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





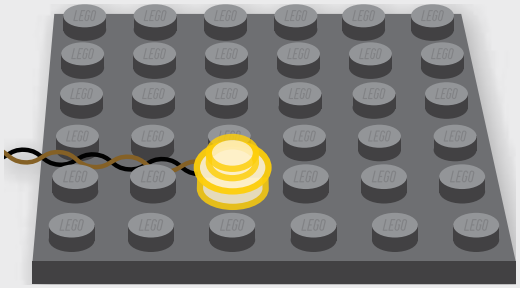
Connecting Micro Cable Connectors To Micro Expansion Board Ports

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

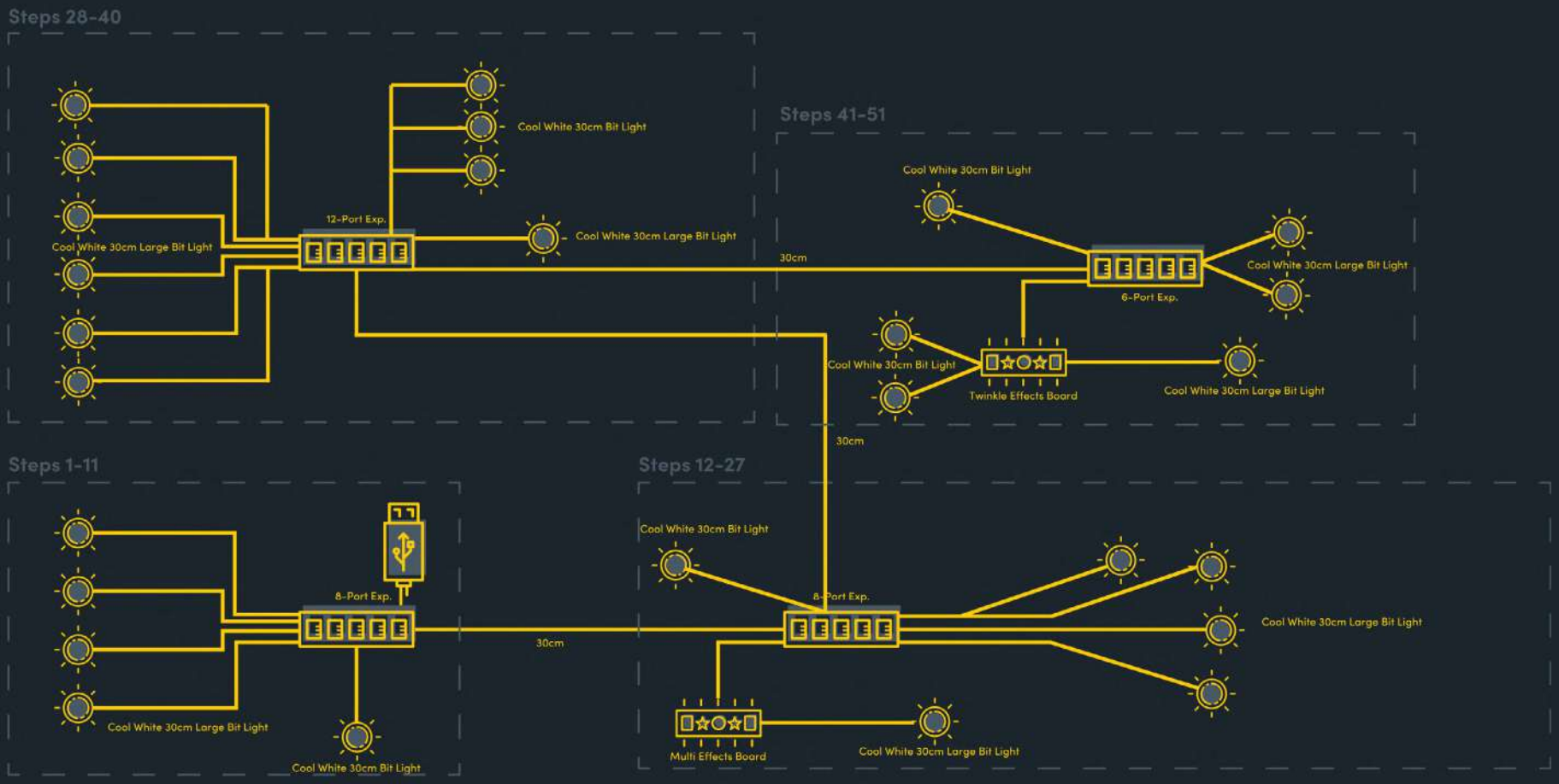
Before You Begin

Installing Bit Lights Under Lego® Bricks And Plates

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



BLUEPRINT


Steps 28-40
Cool White 30cm Bit Light
Cool White 30cm Large Bit Light
12-Port Exp.
Cool White 30cm Large Bit Light
Steps 41-51
Cool White 30cm Bit Light
30cm
6-Port Exp.
Cool White 30cm Large Bit Light
Cool White 30cm Bit Light
Twinkle Effects Board
Cool White 30cm Large Bit Light
30cm
Steps 1-11
8-Port Exp.
Cool White 30cm Large Bit Light
Cool White 30cm Bit Light
Steps 12-27
Cool White 30cm Bit Light
8-Port Exp.
30cm
Cool White 30cm Large Bit Light
Multi Effects Board
Cool White 30cm Large Bit Light

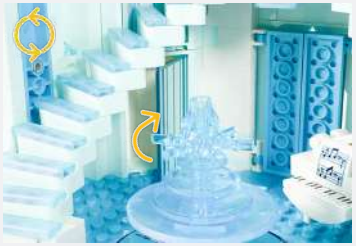
INSTRUCTIONS

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.

1

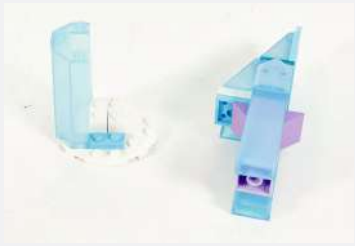
Legend → DISCONNECT → CONNECT / RECONNECT TURN / FLIP → DIRECTIONAL TWIST / BRAID POWER ON TEST NOTE ICON

2



Use the LEGO Removal Tool to push the door open

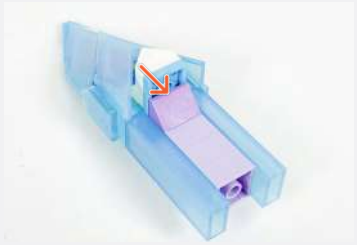
3

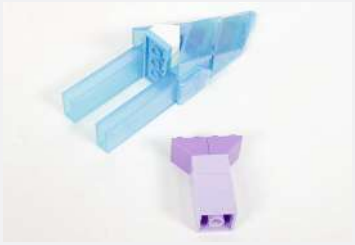


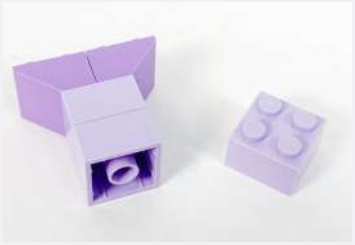
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

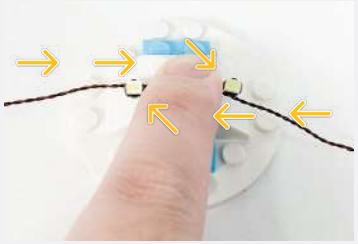
4

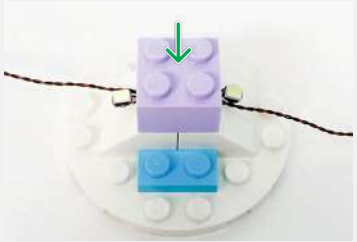
5



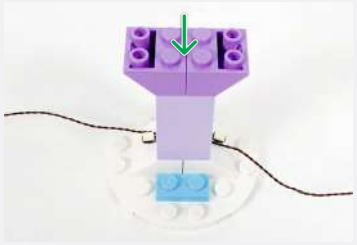
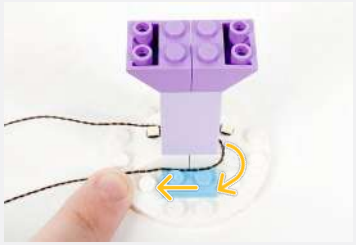
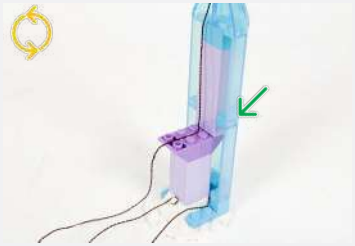
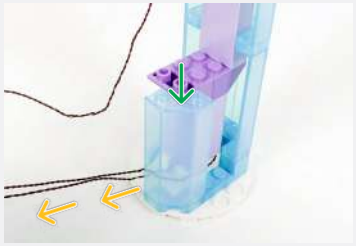
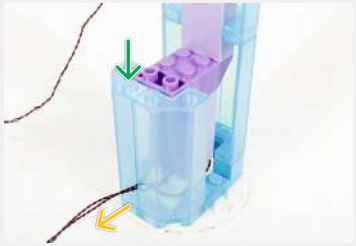








Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⇲ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

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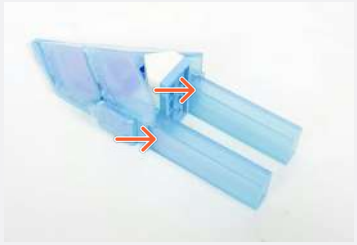
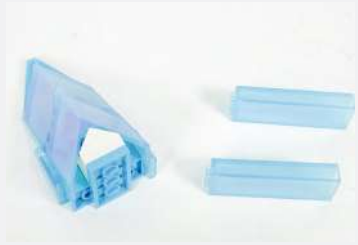

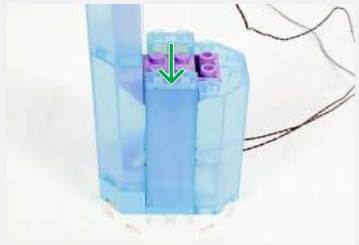

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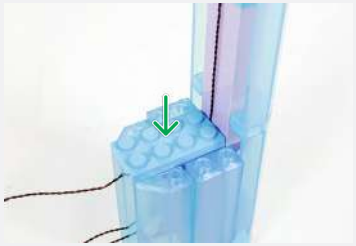
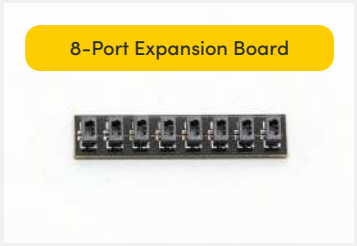
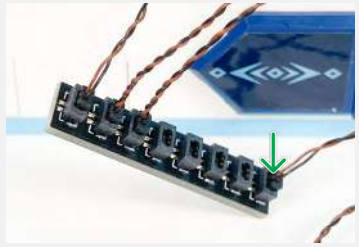


7

8-Port Expansion Board


USB Power Cable



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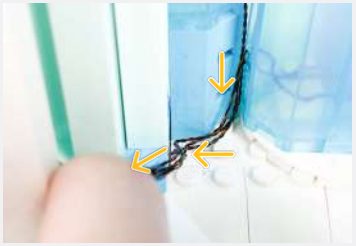
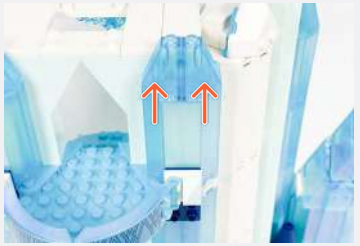
If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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

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

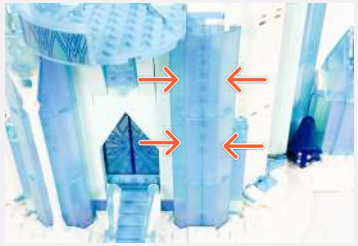


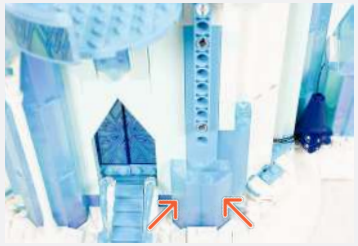
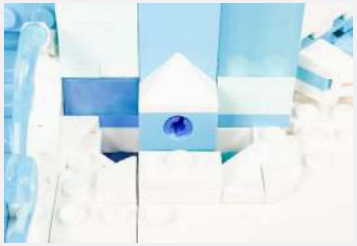
8



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

Pull the LEGO pieces outwards to remove them

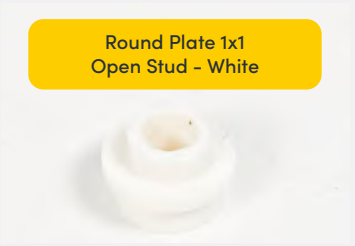


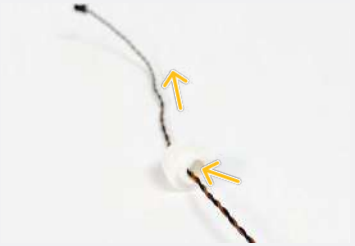



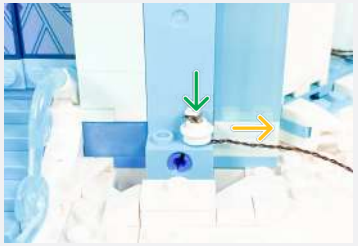
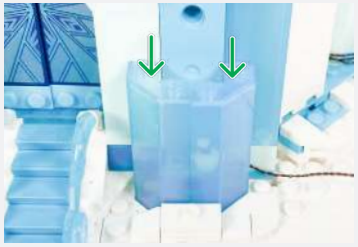
9

Cool White 30cm Large Bit Light

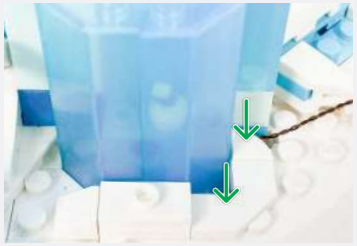
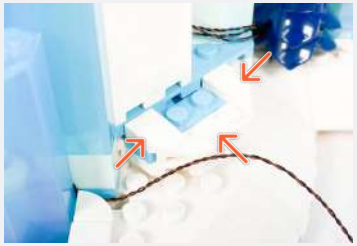
Round Plate 1x1 Open Stud - White

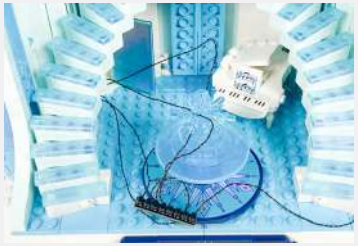
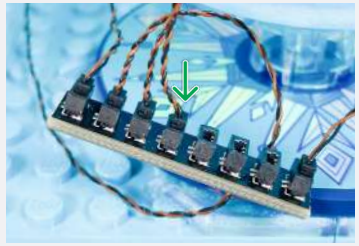




Legend — DISCONNECT — CONNECT / RECONNECT — TURN / FLIP — DIRECTIONAL — TWIST / BRAID — POWER ON TEST — NOTE ICON

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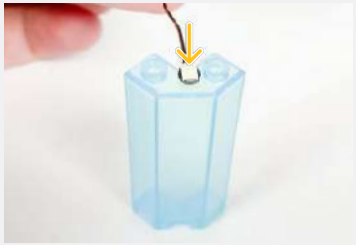
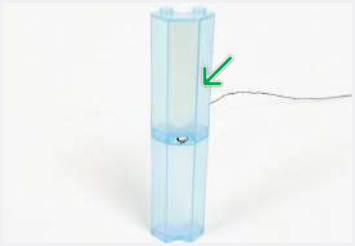
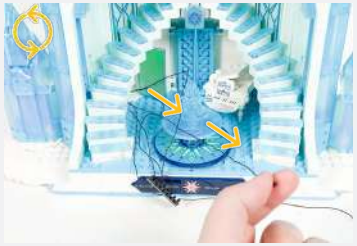
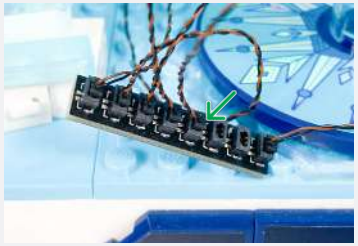
10

Cool White 30cm Large Bit Light



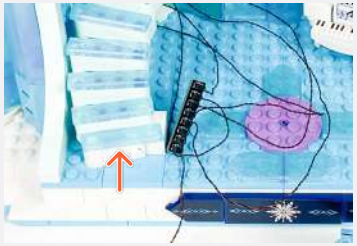






Ensure the Bit Lights from step 7 are running along side the LEGO piece whe re-attaching

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

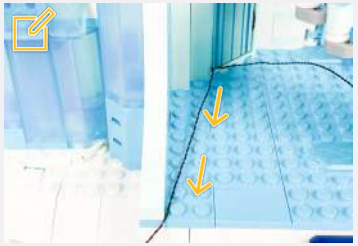


11

30cm Connecting Cable

Twist all the Bit Lights together excluding the Connecting Cable and USB Power Cable

Pull the USB Power Cable downwards



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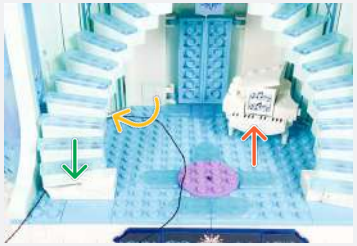
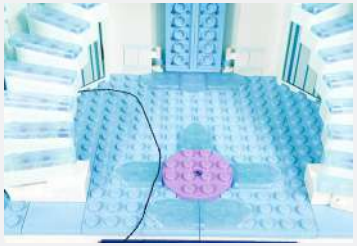
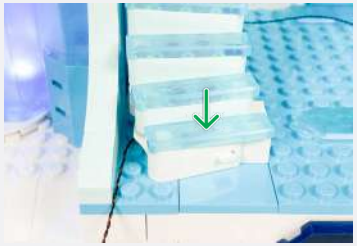
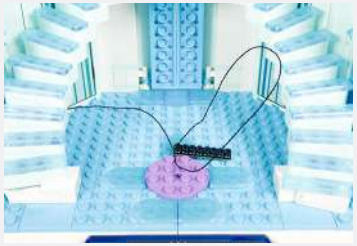
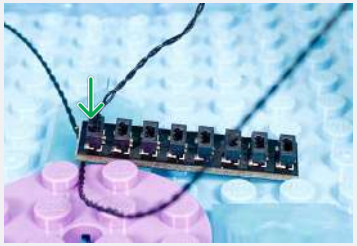






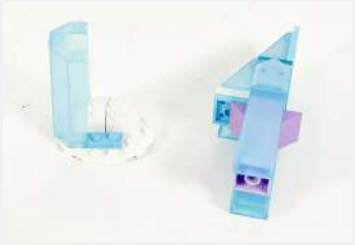
8-Port Expansion Board

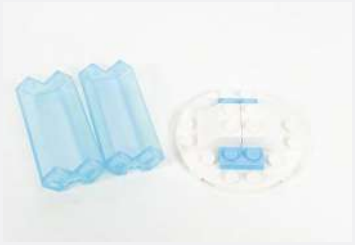




12

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

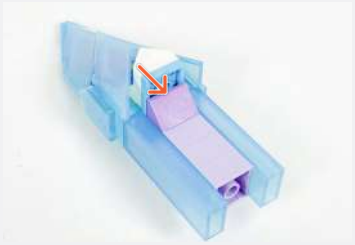


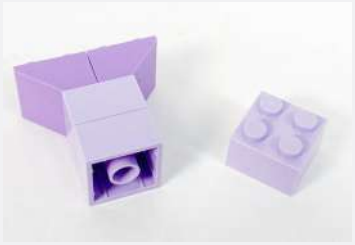


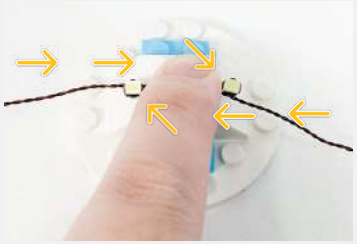
13

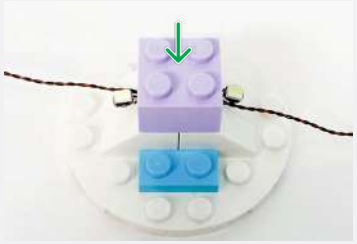
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

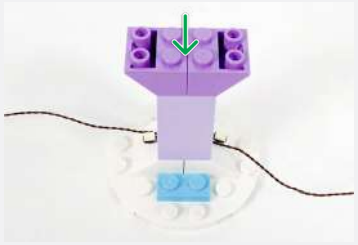
14

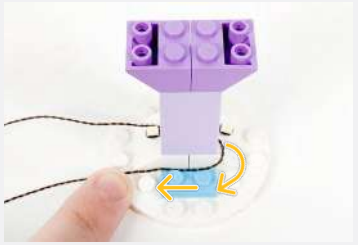


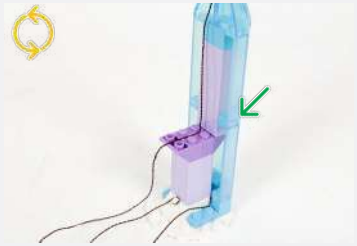


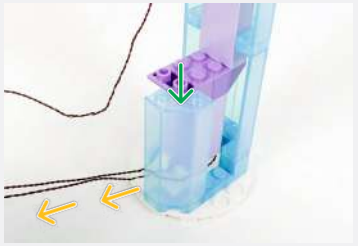


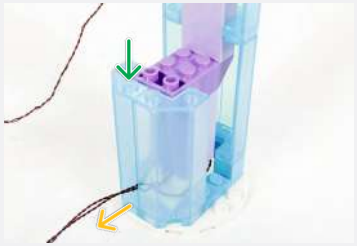






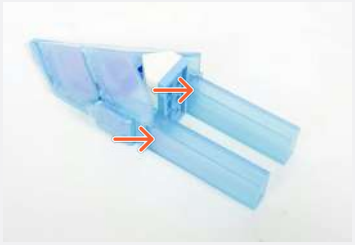
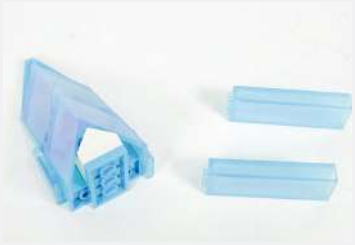




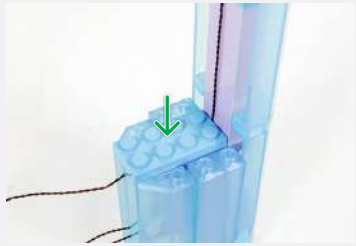


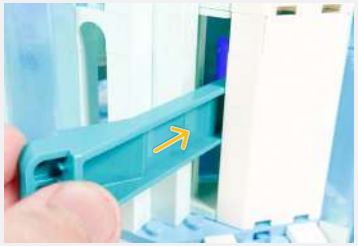
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

15

16

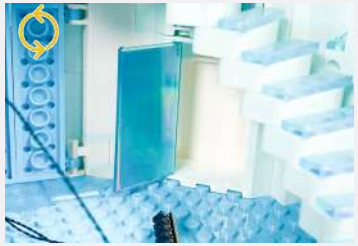


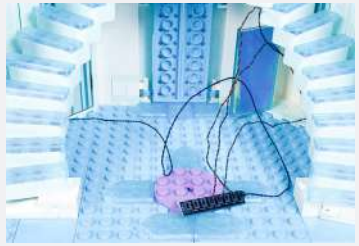
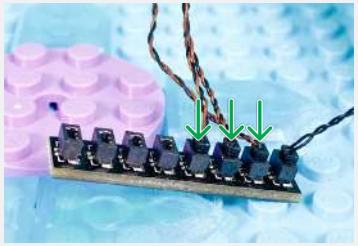


Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⇲ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

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

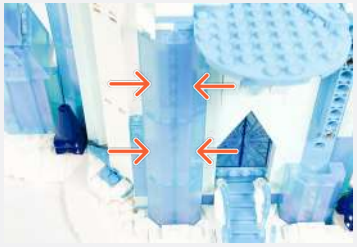
17



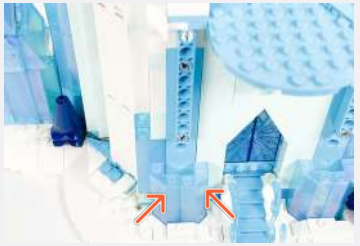



Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

18

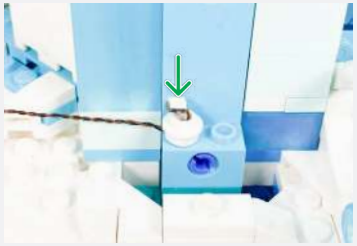


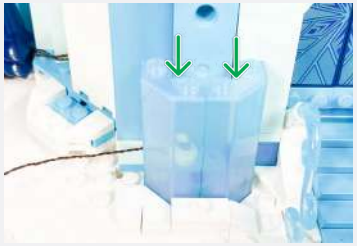
Pull the LEGO pieces outwards to remove them

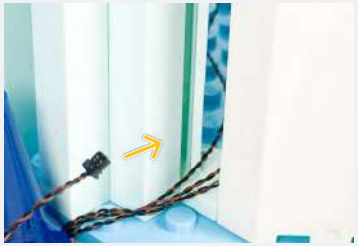


Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

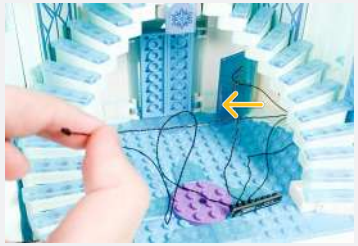
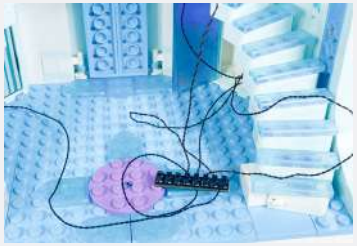
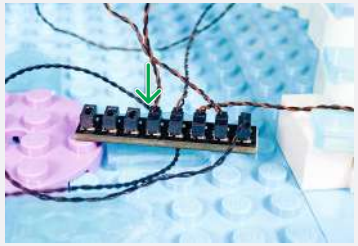
19



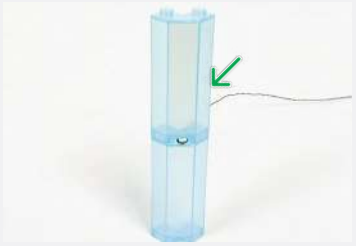


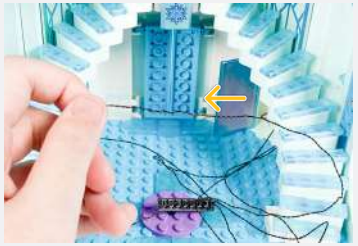
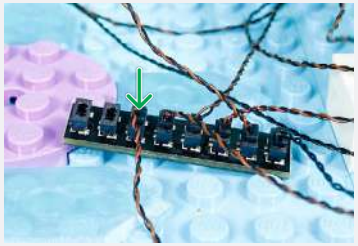


Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⇲ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

Cool White 30cm Large Bit Light

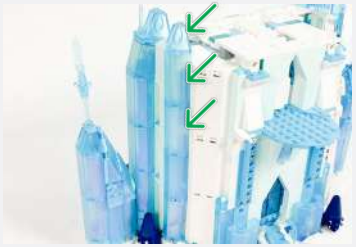


20

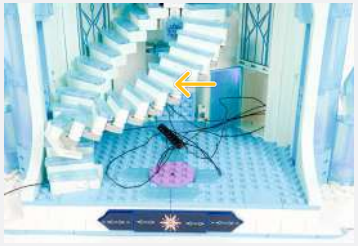
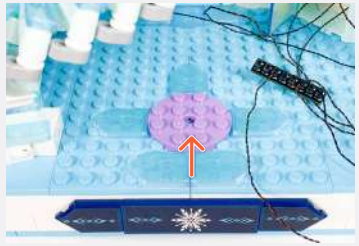
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

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



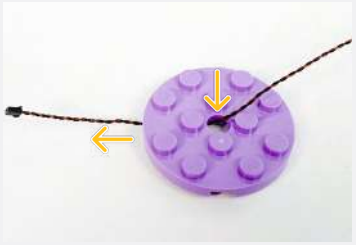
22

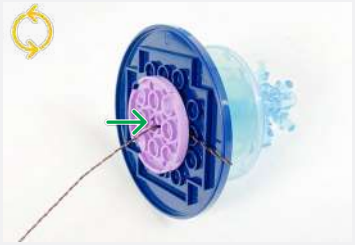
23

Cool White 30cm Large Bit Light

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



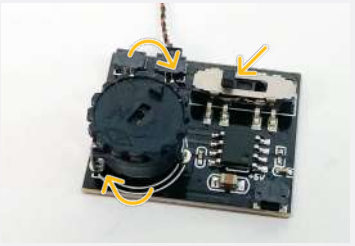


24

Multi Effects Board

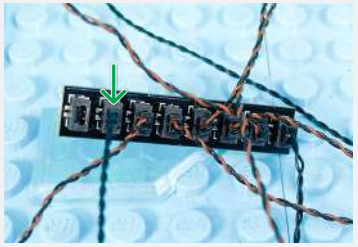
Set the switch to the left for the “flash effect”.

Set the speed of the flash to the fastest speed by turning the dial clockwise



Connect the 5cm Connecting Cable to the ‘+5V’ Port on the Mutli Effects Board

5cm Connecting Cable



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

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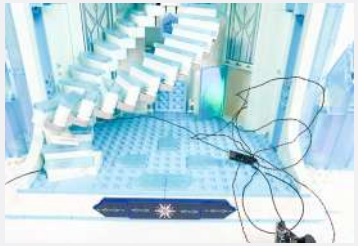
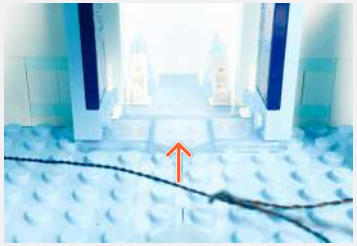
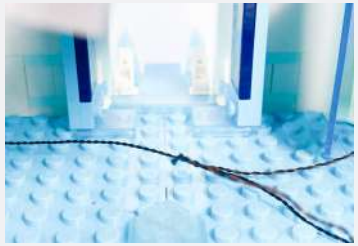
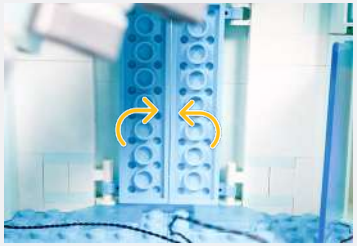
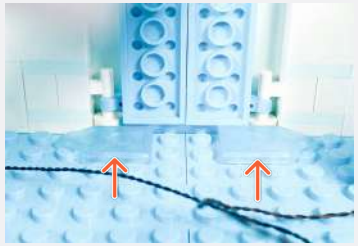
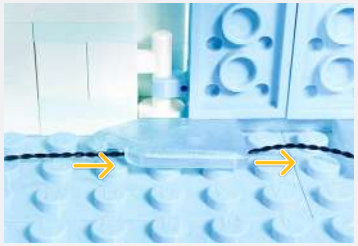
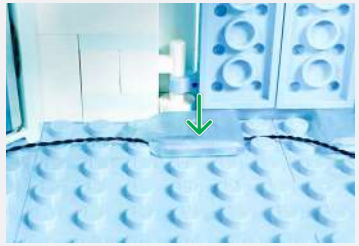
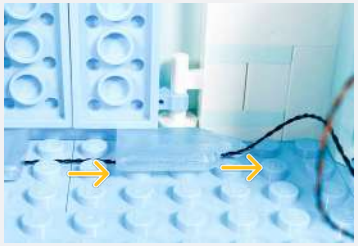
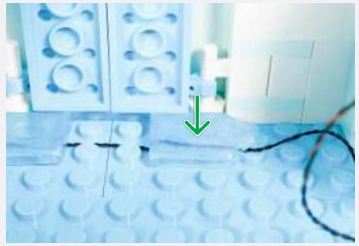
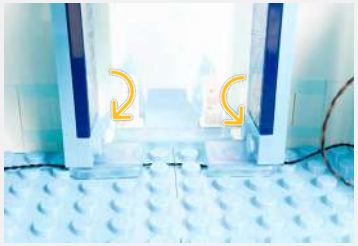
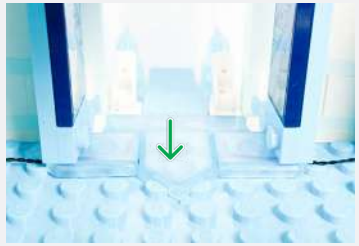
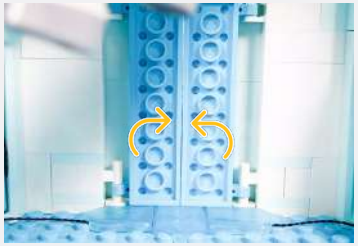


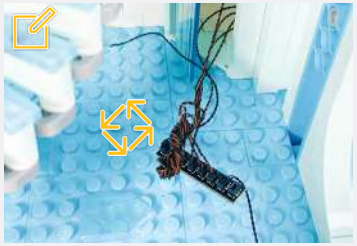
Slightly lift the two tiles so that we can thread the 30cm Connecting Cable underneath

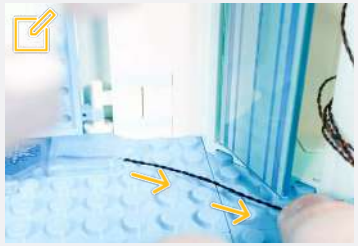
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

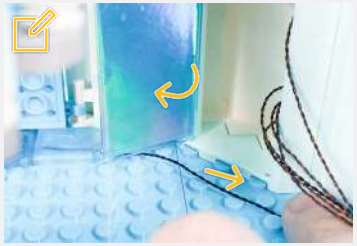
26

Twist the cables excluding the 5cm Connecting Cable

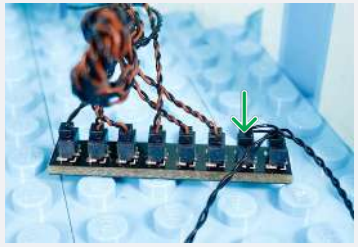


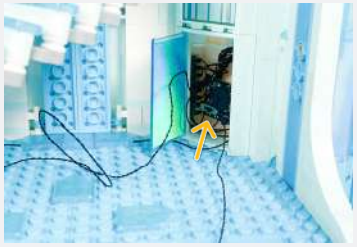
Ensure the 30cm Connecting Cable is threaded below the door



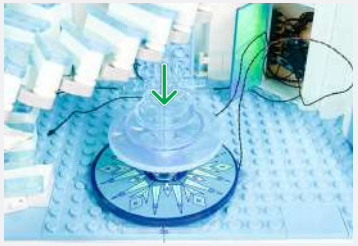


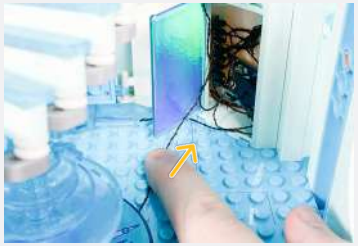
30cm Connecting Cable

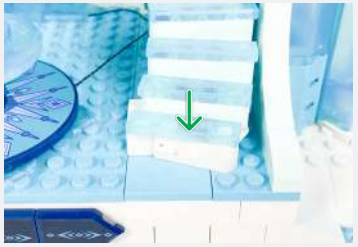




Pull the loose 30cm Connecting Cable upwards, out of the door







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

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

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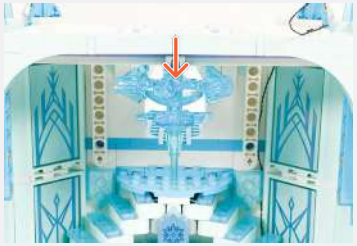
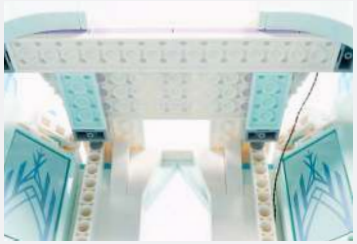
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

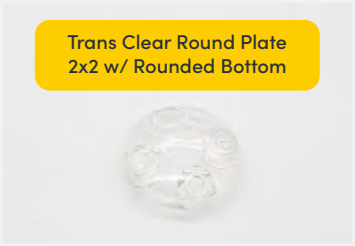
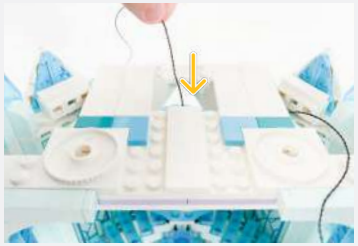
28

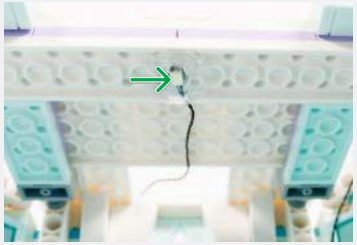




Cool White 30cm Large Bit Light

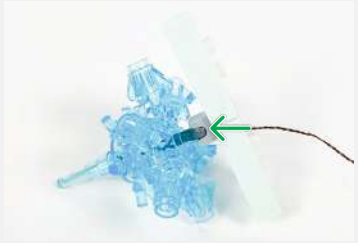
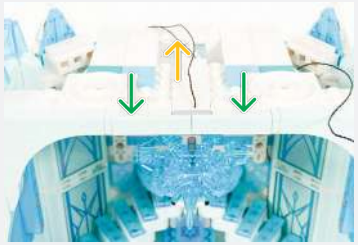
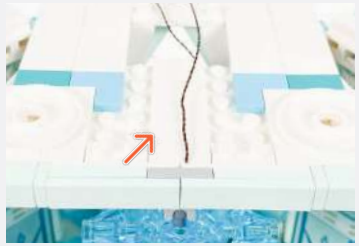
Trans Clear Round Plate 2x2 w/ Rounded Bottom

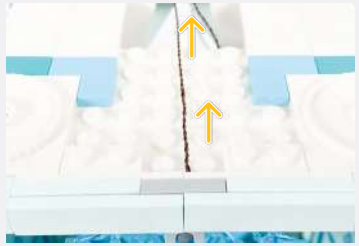
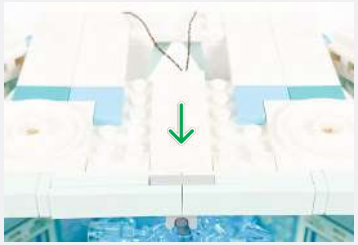





Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⇲ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

29

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

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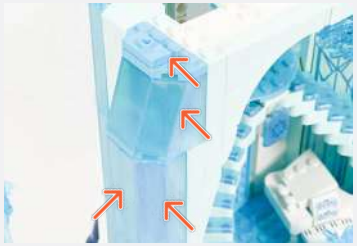
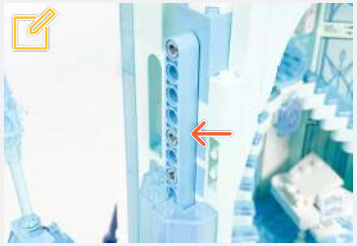
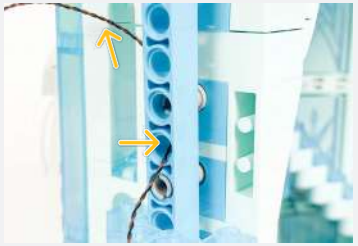


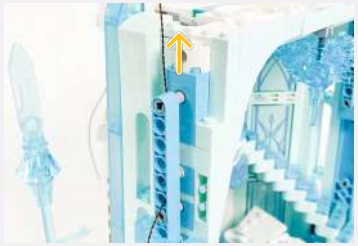
Slightly disconnect the Liftarm

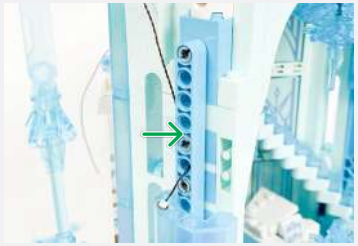


Cool White 30cm Large Bit Light



Leave excess cable from the LED as shown before reconnecting the Liftarm





Ensure the LED is facing upwards

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

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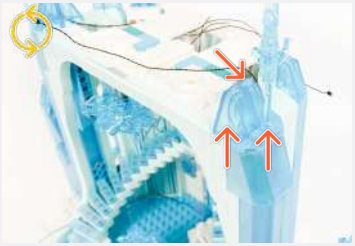
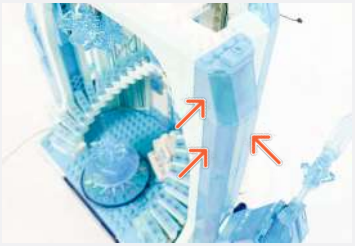


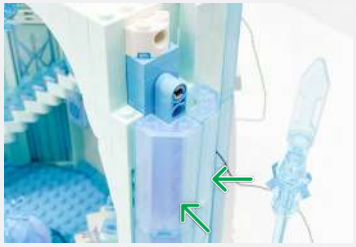


Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⇲ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

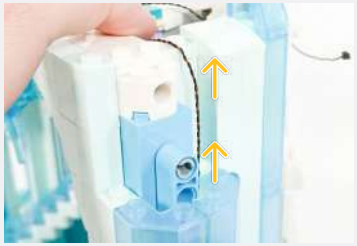
Slightly disconnect the Liftarm

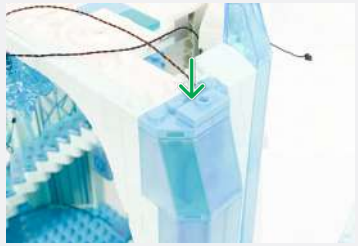
Cool White 30cm Large Bit Light

Leave excess cable from the LED as shown before reconnecting the Liftarm



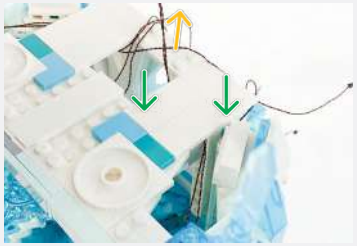
33

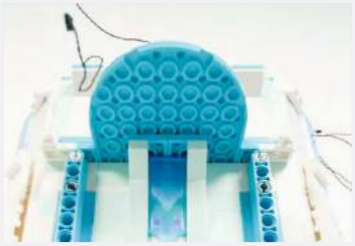




Cool White 30cm Bit Light

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





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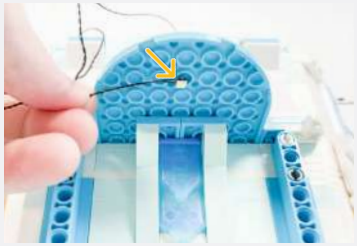
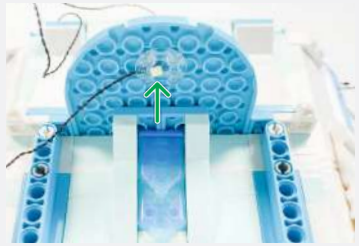
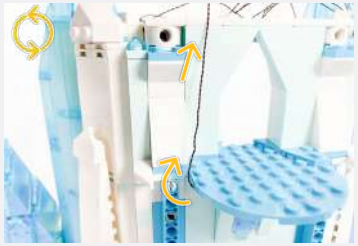
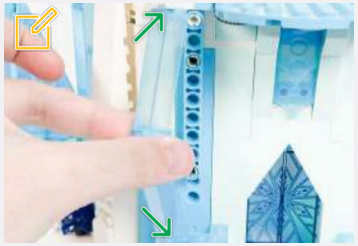
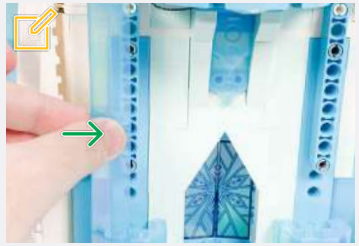
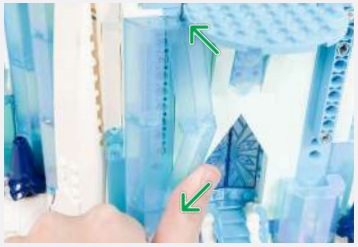
Cool White 30cm Large Bit Light

Trans Clear Round Plate 2x2 w/ Rounded Bottom

To reconnect the two pieces, connect the top and bottom end as shown, then push the middle to fully secure

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

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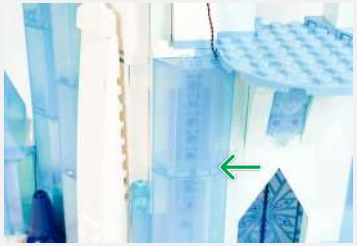
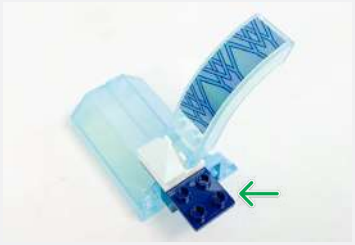
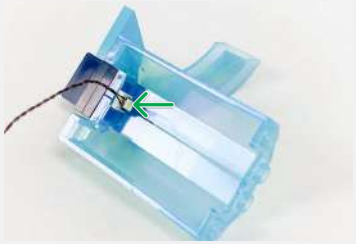


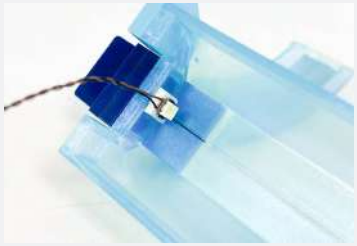


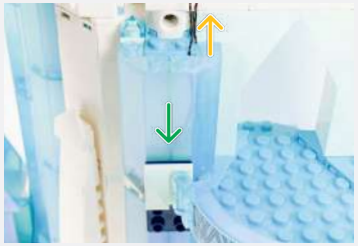
Adhesive Square

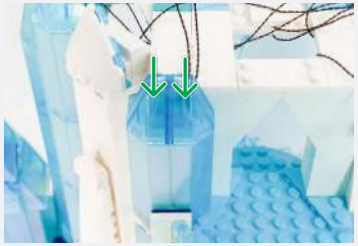
Cool White 30cm Large Bit Light



Apply heavy pressure to ensure the Bit Light is stuck in a secure manner







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

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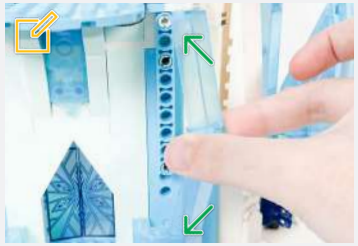
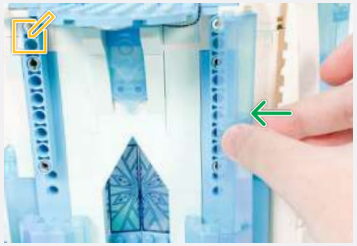
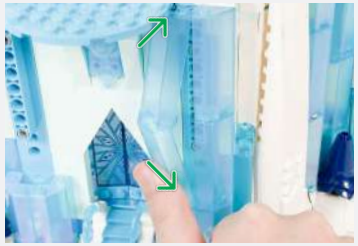
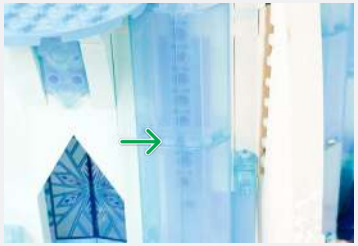
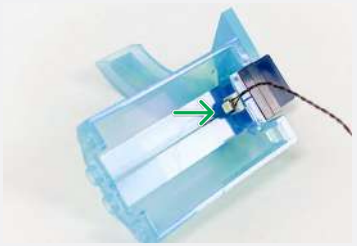
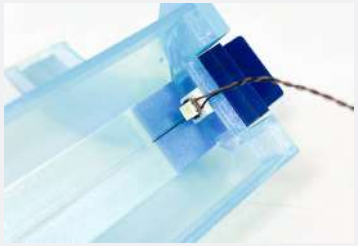
To reconnect the two pieces, connect the top and bottom end as shown, then push the middle to fully secure

Adhesive Square

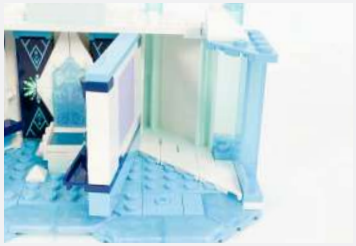
Apply heavy pressure to ensure the Bit Light is stuck in a secure manner

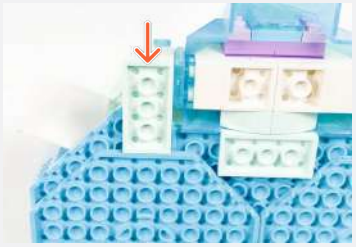
Cool White 30cm Large Bit Light

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

37





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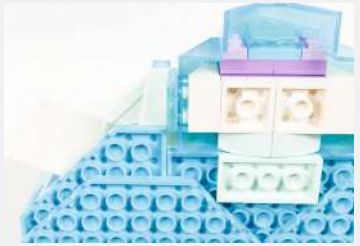
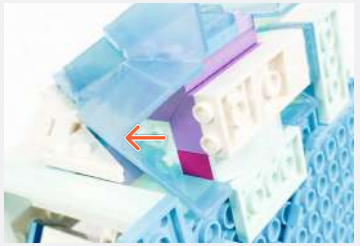
Group all the cables at the top of the ground/first floor together from the connector head

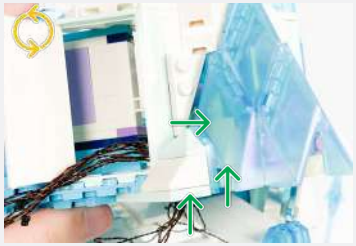




Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

38

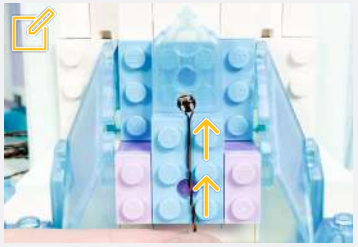
Thread the grouped cables through the gap on the second floor



39

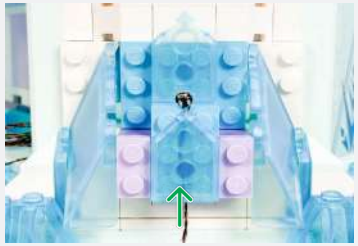
Ensure the LED is facing towards the LEGO pieces

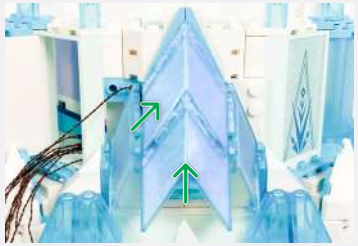
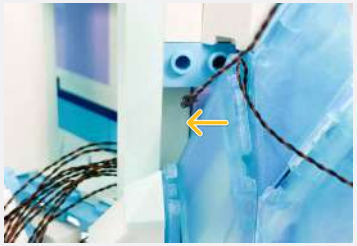
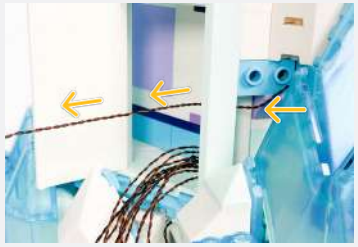
Cool White 30cm Large Bit Light



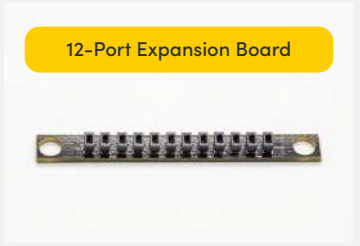
Legend — DISCONNECT · CONNECT / RECONNECT · TURN / FLIP · DIRECTIONAL · TWIST / BRAID · POWER ON TEST · NOTE ICON

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

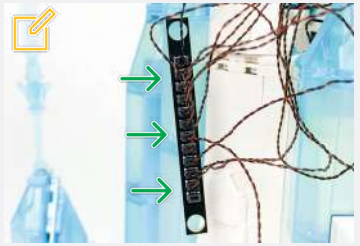


40

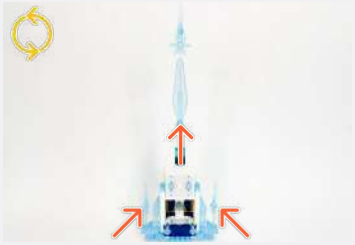


Connect all of the loose 11 cables to the 12-Port Expansion Board



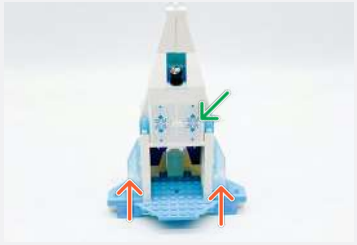
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

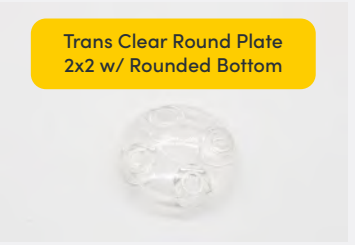
41

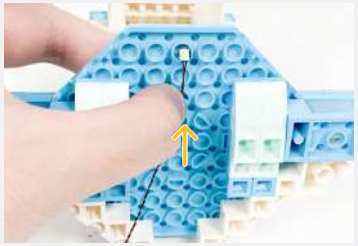


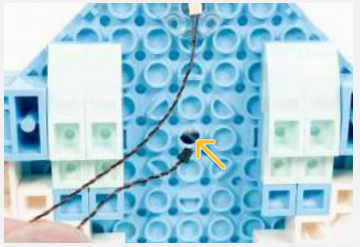
Temporarily disconnect the upper part in order to remove the bed

42

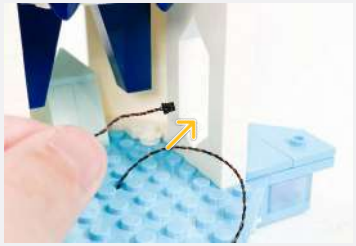
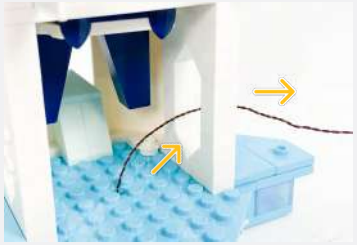




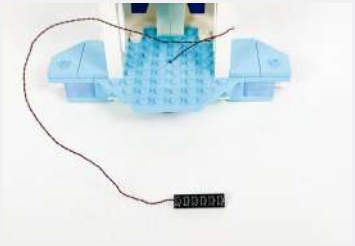




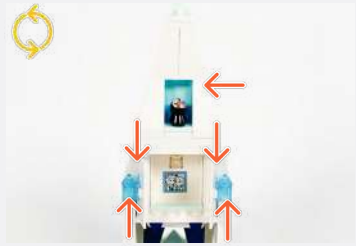
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⤢ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

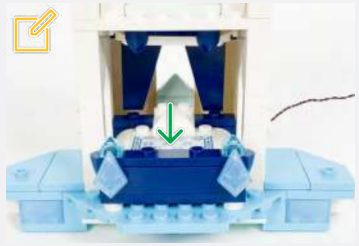
6-Port Expansion Board



43



Reconnect the Bed but one stud forward from its original position - in front of the curtains



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

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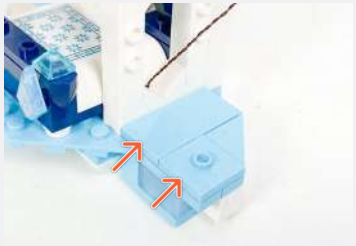
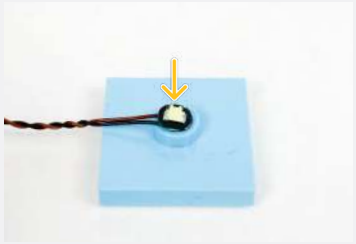
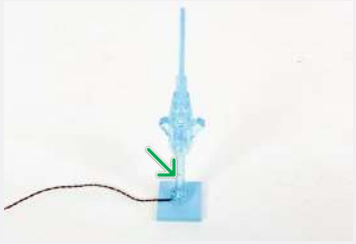
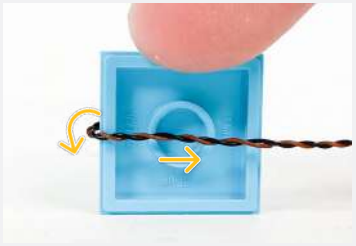
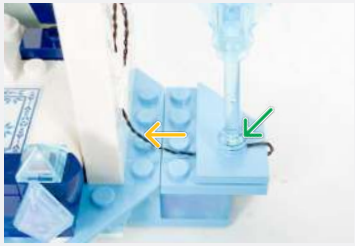
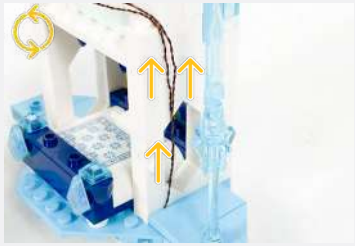
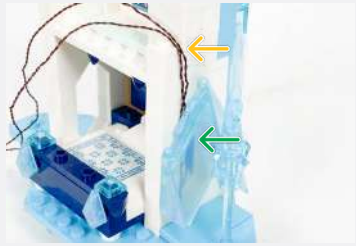


Cool White 30cm Bit Light

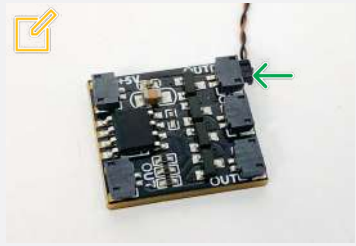






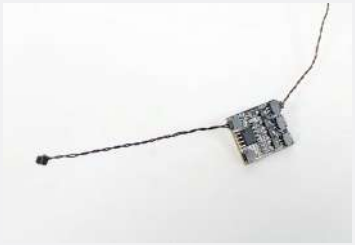
Connect the Cool White 30cm Bit Light to the 'OUT' port on the Twinkle Effects Board

Twinkle Effects Board

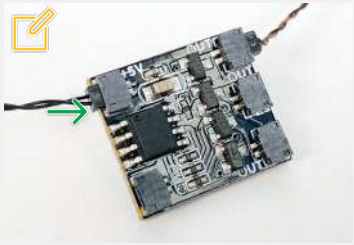


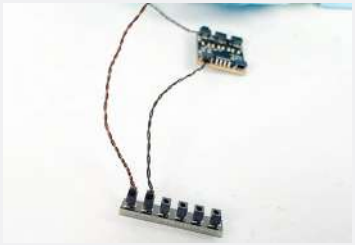
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⇲ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON

5cm Connecting Cable

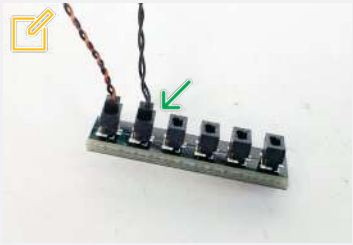


Connect the 5cm Connecting Cable to the '+5V' port on the Twinkle Effects Board

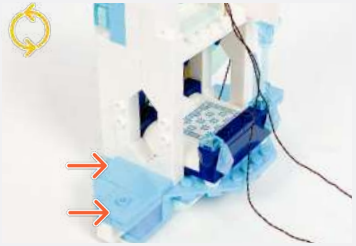




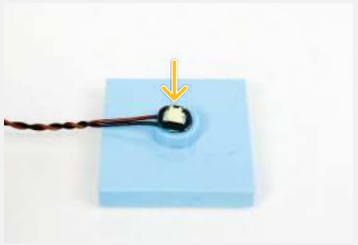
Connect the other end of the 5cm Connecting Cable to the 6-Port Expansion Board

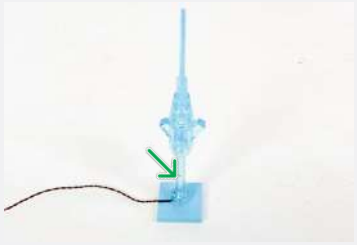


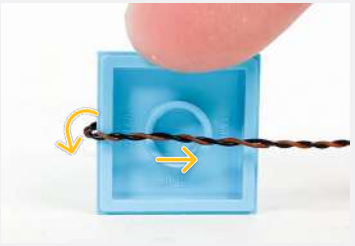
45



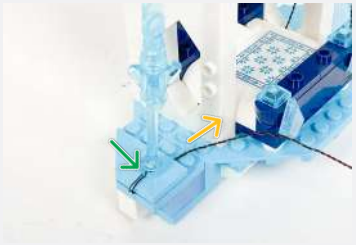
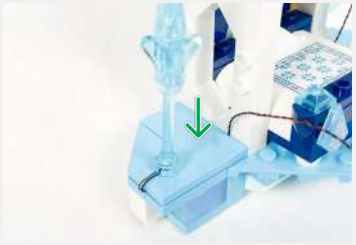
Cool White 30cm Bit Light



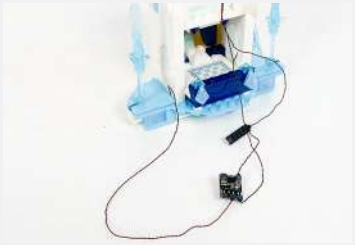
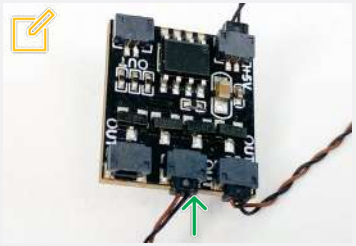




Legend DISCONNECT · CONNECT / RECONNECT · TURN / FLIP · DIRECTIONAL · TWIST / BRAID · POWER ON TEST · NOTE ICON

Connect the Cool White 30cm Bit Light to the 'OUT' port on the Twinkle Effects Board

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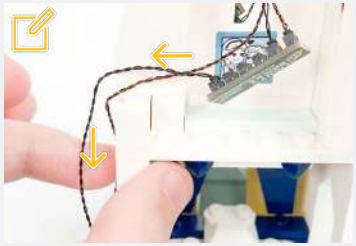
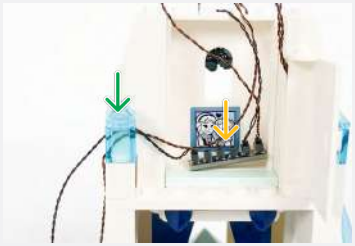
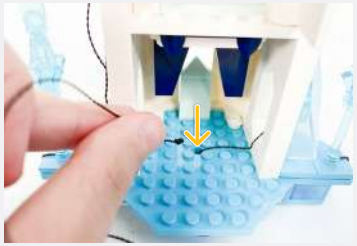
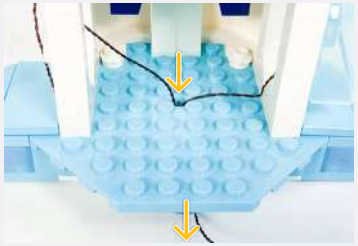
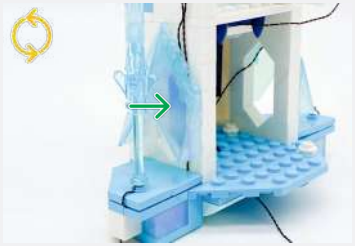
30cm Connecting Cable

Connect the Cool White 30cm Bit Light to the 'OUT' port on the Twinkle Effects Board

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

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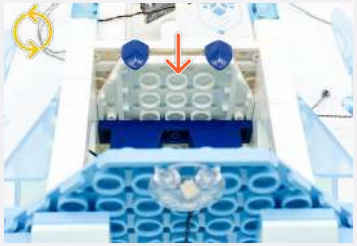
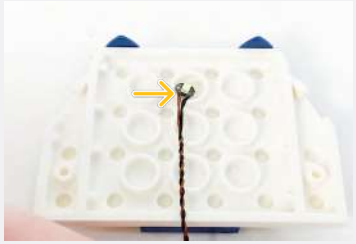
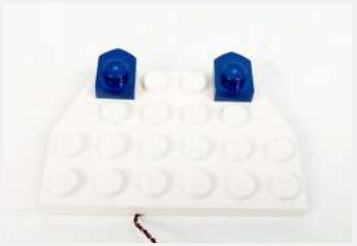
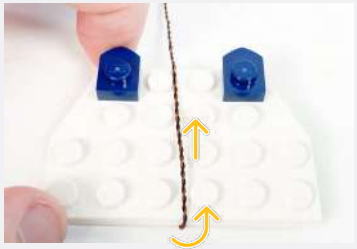
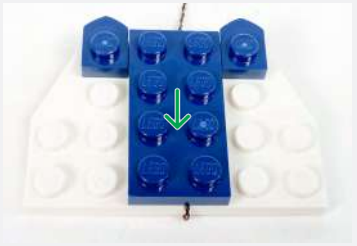
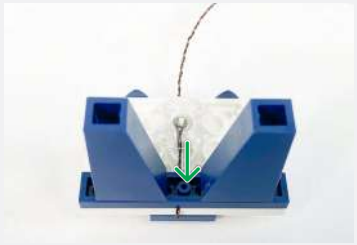
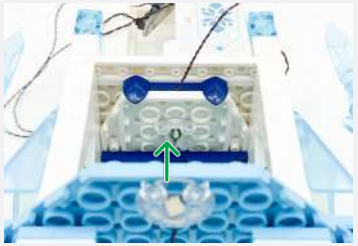
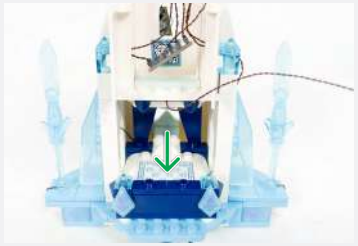


Cool White 30cm Bit Light

Trans Clear Round Plate 2x2 w/ Rounded Bottom



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

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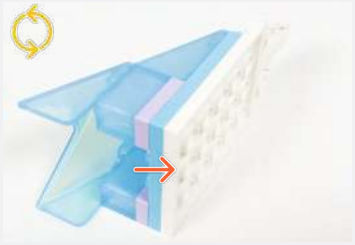
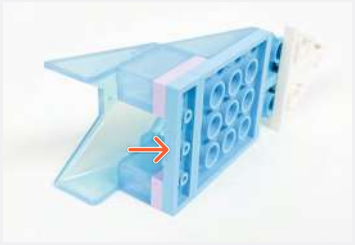
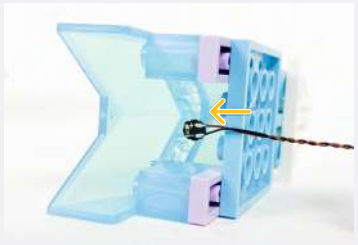
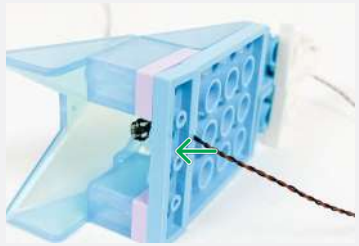
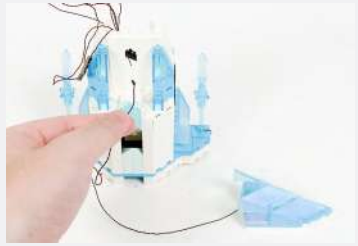




Cool White 30cm Large Bit Light







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

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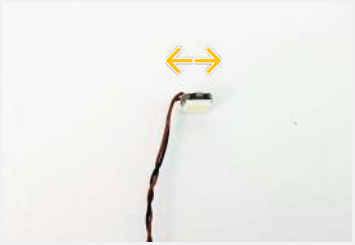

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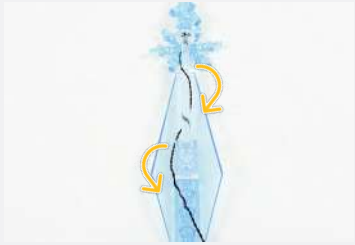
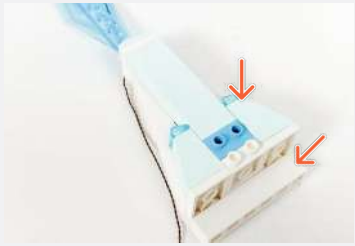
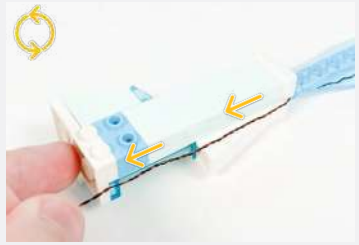
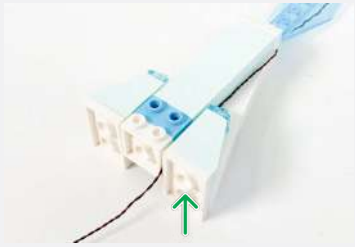
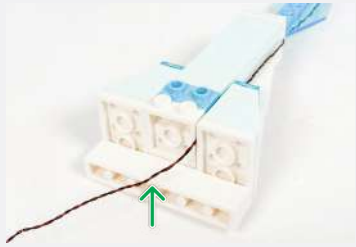
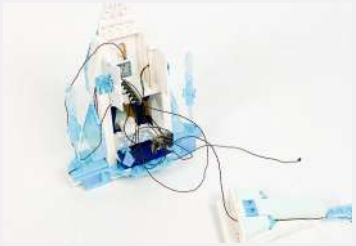
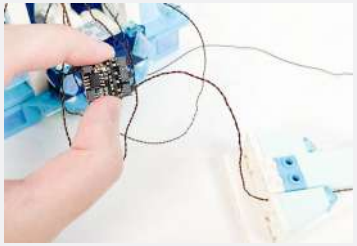


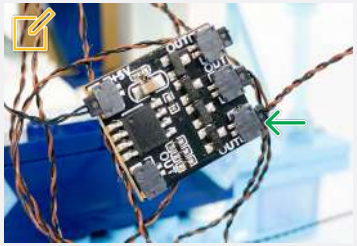





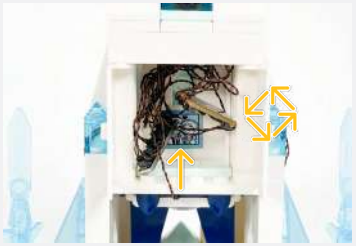
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ⇲ TWIST / BRAID ✳ POWER ON TEST ✎ NOTE ICON





Connect the Cool White 30cm Large Bit Light to the 'OUT' port on the Twinkle Effects Board





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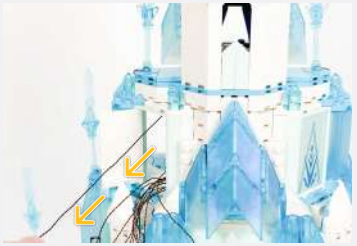
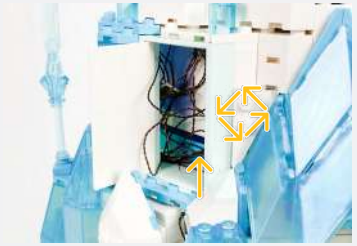
Reconnect the top level by first threading the 30cm Connecting Cable through the gap on the previous level





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

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

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 Ice Castle 43197 Light Kit.

TROUBLESHOOTING

Light My Bricks lighting kits contain individual components that are very small and can be easily damaged if not handled correctly.

To prevent unnecessary damage to components, we highly recommend that the User Guide section, **“Important things to note”** is read carefully. Follow the handling procedures in the User Guide to help prevent faults and damages to your Light My Bricks components.

If you are experiencing issues with your Light My Bricks set, watch our troubleshooting video here or read on for a list of common causes to help you troubleshoot.

Troubleshooting

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

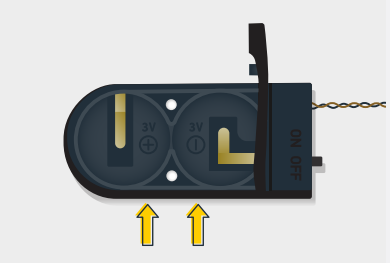
If the batteries have no power, replace the batteries.

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

Check For CR2032 Batteries Using The Flat Battery Pack

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

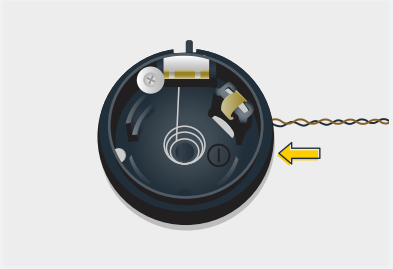
On the opposite side, the “-” side of the battery pack should have the battery flipped upside down, that is the “+” symbol facing upwards

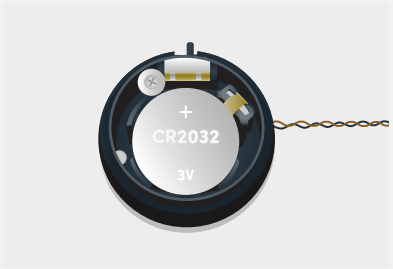


Troubleshooting

Check For Cr2032 Batteries Using The Round Battery Pack

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

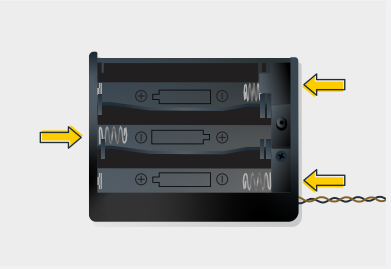


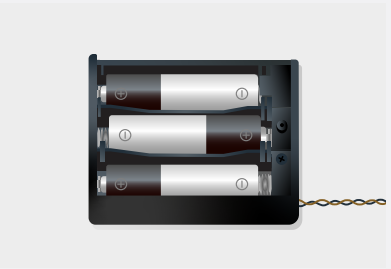


Check for AA batteries using the AA battery pack

Inside the battery pack are symbols indicating which direction the AA battery should be inserted. The flat side of the battery should be paired with the spring side of the battery pack.

If the batteries have been installed correctly and your kit still isn’t operating correctly, the next step is to check the wiring.





Troubleshooting

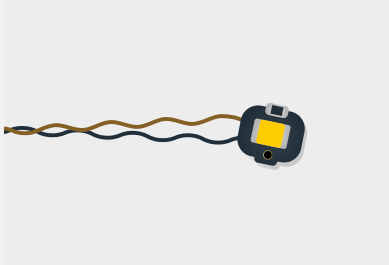
Check Your Wires

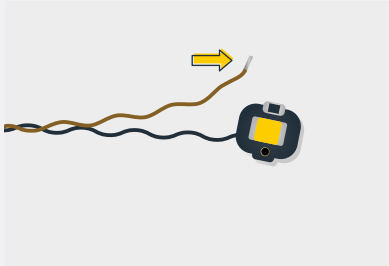
In order for Light My Bricks components to fit in between and underneath LEGO® bricks, the components need to be very small. Due to this nature, Light My Bricks components can be easily damaged when not handled correctly.

Be careful when removing unpacked components out of the packaging and ensure not to forcibly pull at the wires as this can damage the soldering that attach the wires to the LEDs.

If the wiring is detached from the LED itself, the light will not operate.

When connecting lights to your LEGO set, check that there are no pinched wires underneath or in between bricks and plates. When the wires are pinched and the exposed wires are touching each other, this can cause a crosswire and the lights to not function correctly.





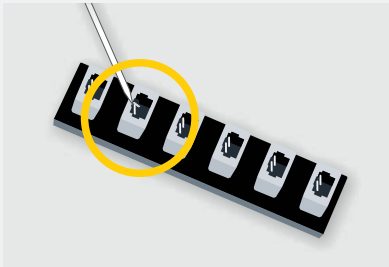
Troubleshooting

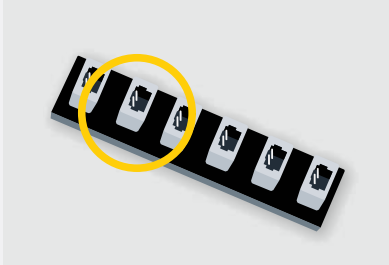
Check Your Expansion Board Ports/ Strip Light Ports / Effects Board Ports

It is important to note that connectors can only be inserted to the expansion board, strip light, or effects board ports in one direction.

Forcibly inserting connectors in the incorrect direction will result in damaging the pins inside each of the ports on your component board.

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

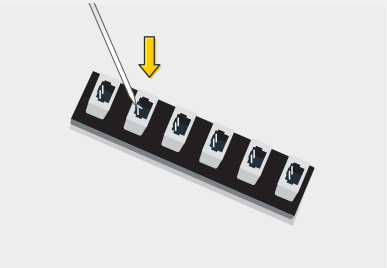


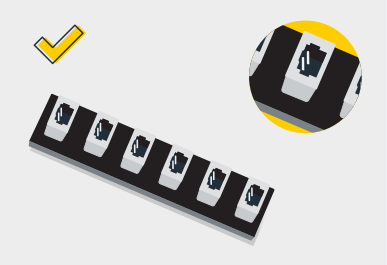


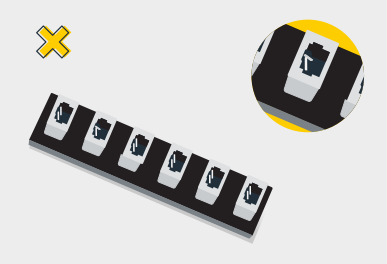
A short circuit can also result in overheating of the board, cable or batteries. If you suspect a short circuit, DISCONNECT POWER IMMEDIATELY Batteries can fail, catch fire, or even explode if left connected to a short circuit for too long.

If you suspect you have a faulty component due to a bent pin, try the following steps:

If you look carefully inside each of the ports, each port contains 2 small pins that should be straight. You will be able to identify a faulty port if it has any bent pins.







CONTACT US

If you have an enquiry regarding the online shop, our products or a general enquiry please refer to our Frequently Asked Questions webpage here. Alternatively, you can contact our Customer Services team by visiting our online support portal here.

support.lightmybricks.com

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

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