



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



**LEGO® REAL MADRID - SANTIAGO  
BERNABEU STADIUM  
#10299 LIGHT KIT  
INSTALLATION GUIDE**

# Light My Bricks



## LEGO REAL MADRID - SANTIAGO BERNABEU STADIUM 10299 LIGHT KIT INSTALLATION GUIDE

Hi There!

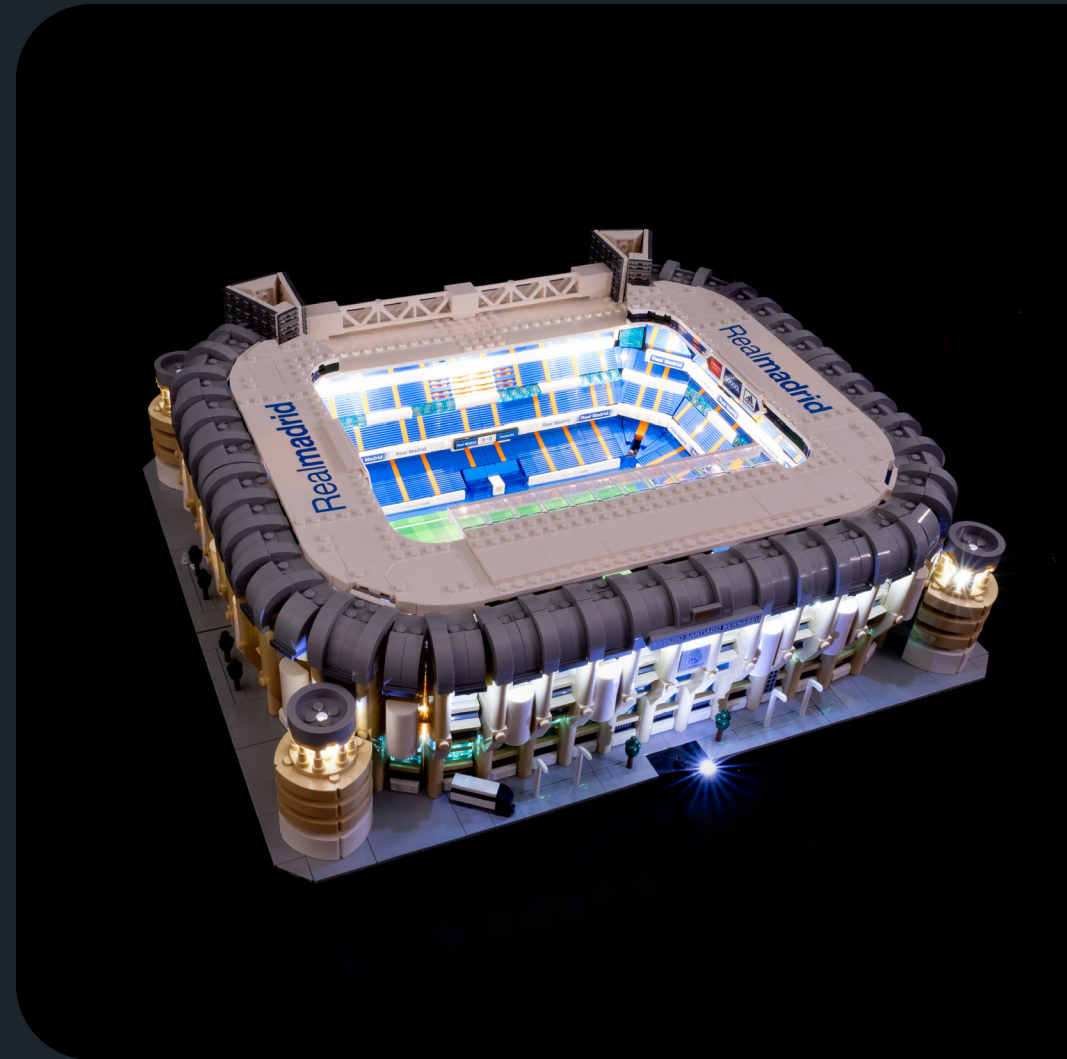
We're here to help you get started on the LEGO®

Real Madrid – Santiago Bernabéu Stadium (10299) 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.

INSTALLATION GUIDE



## PACKAGE CONTENTS:



20 x Cool White 30cm Bit Light\*  
5 x Cool White 30cm Large Bit Light  
20 x White Strip Light



1 x 2-Port Expansion Board  
1 x 6-Port Expansion Board  
4 x 12-Port Expansion Board\*



14 x 5cm Connecting Cable  
10 x 15cm Connecting Cable \*  
1 x 30cm Connecting Cable



1 x USB Power Cable  
(Power Source not Included)

## ASSORTED BRICKS:



- 1 x Plate 1x2 MW Stud Jumper - Black
- 3 x 1x2 Tile - Black
- 1 x Round Plate 1x1 w/ Open Stud - Black
- 2 x Mod Plate 1x1 w/ Handle - Black
- 1 x Arm Skeleton, Bent w/ Clips (Horizontal Grip) - Black

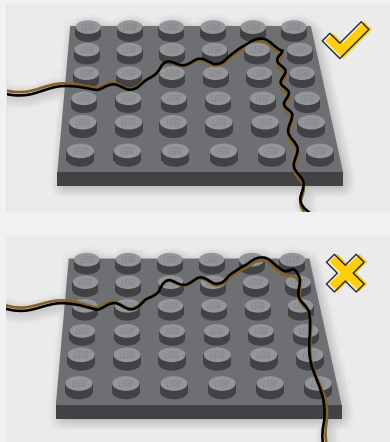
\* Spares included

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Troubleshooting	49
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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.*

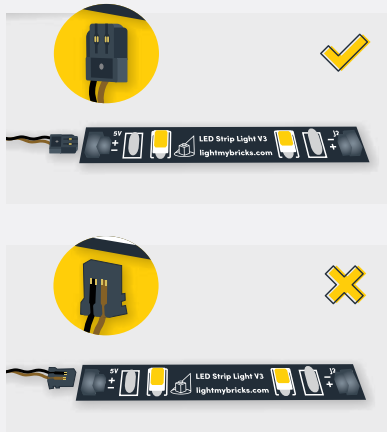


### Connecting Cable Connectors To Expansion Boards

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.



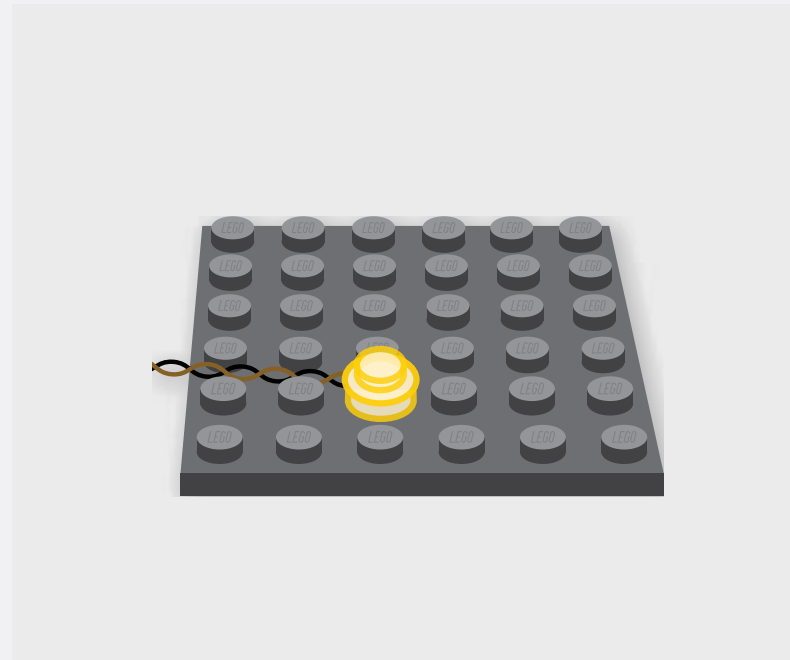
### Connecting Micro Cable Connectors To Micro Expansion Board Ports

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

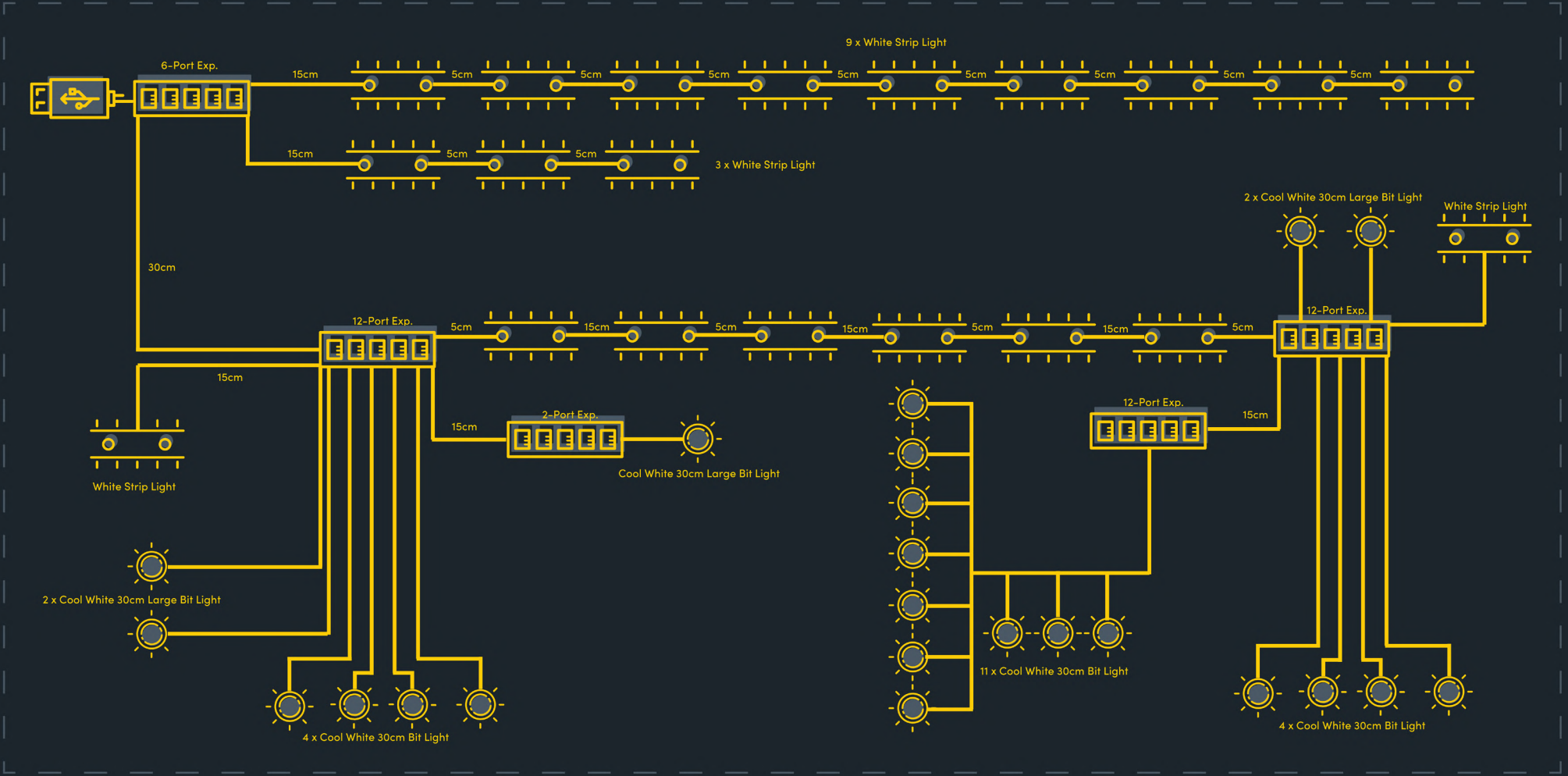
### Installing Bit Lights Under Lego® Bricks And Plates

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

## Real Madrid – Santiago Bernabéu Stadium



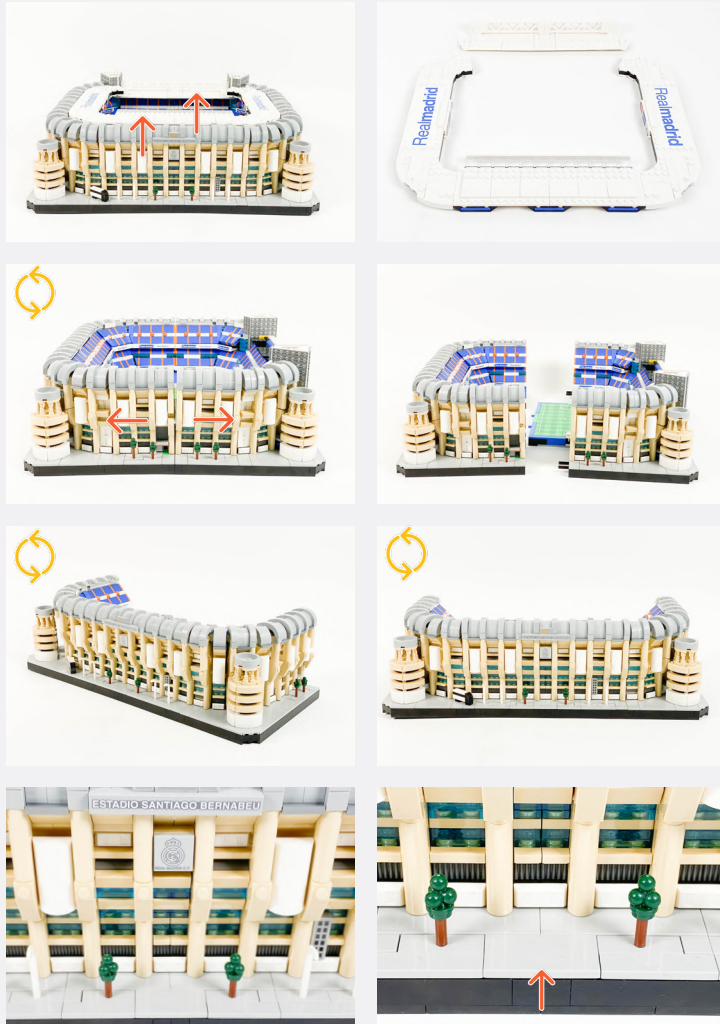


# INSTRUCTIONS

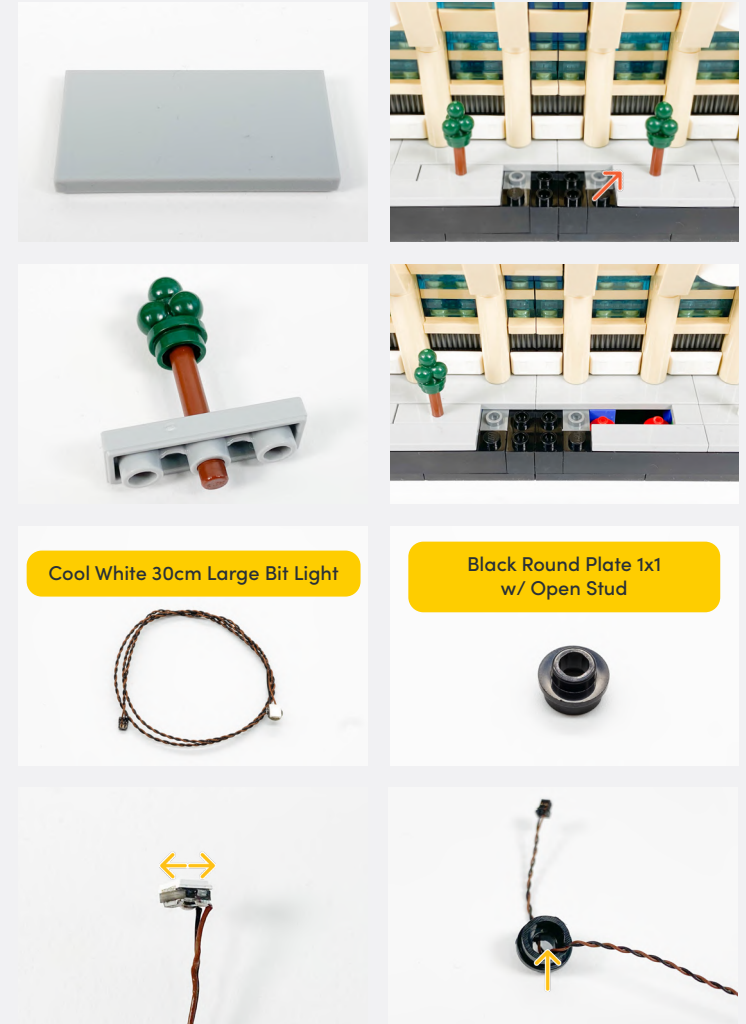
To ensure a smooth installation of your light kit, please read and follow each step carefully. If you run into any issues, please refer to the online troubleshooting guide.

	LEGEND:		DISCONNECT		CONNECT / RECONNECT		TURN / FLIP		DIRECTIONAL		TWIST / BRAID		POWER ON / TEST
	LEGENDE:		TRENNEN		VERNINDEN / WIEDERVERBINDEN		WENDEN / KIPPEN		DIRECTIONAL		DREHEN / VERDREHEN		EINSCHALTEN / TESTEN
	LÉGENDE:		DÉCONNECTER		CONNECTER / RECONNECTER		TOUR / INCLINAISON		DIRECTIONNEL		TORSION / TRESSER		POWER ON / TEST
	LEGGENDA:		SCOLLEGARE		CONNETTI / RICONNETTI		ROTARE / INCLINARE		DIREZIONALE		TWIST / TRECCIA		POWER ON / TEST

1



2



Legend

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



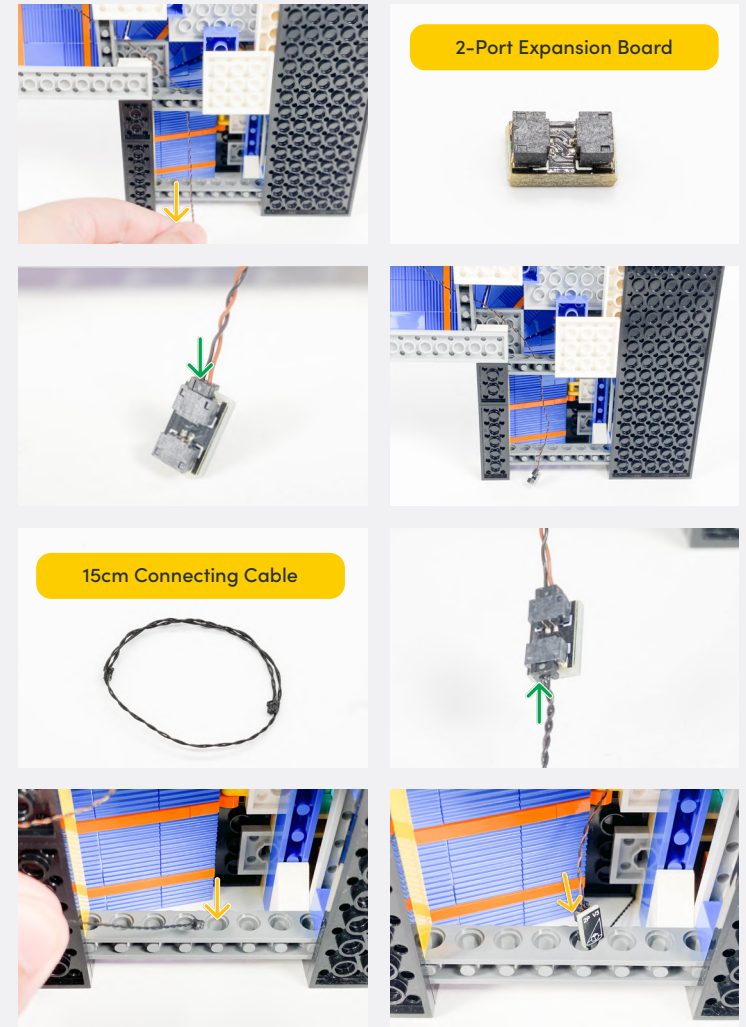
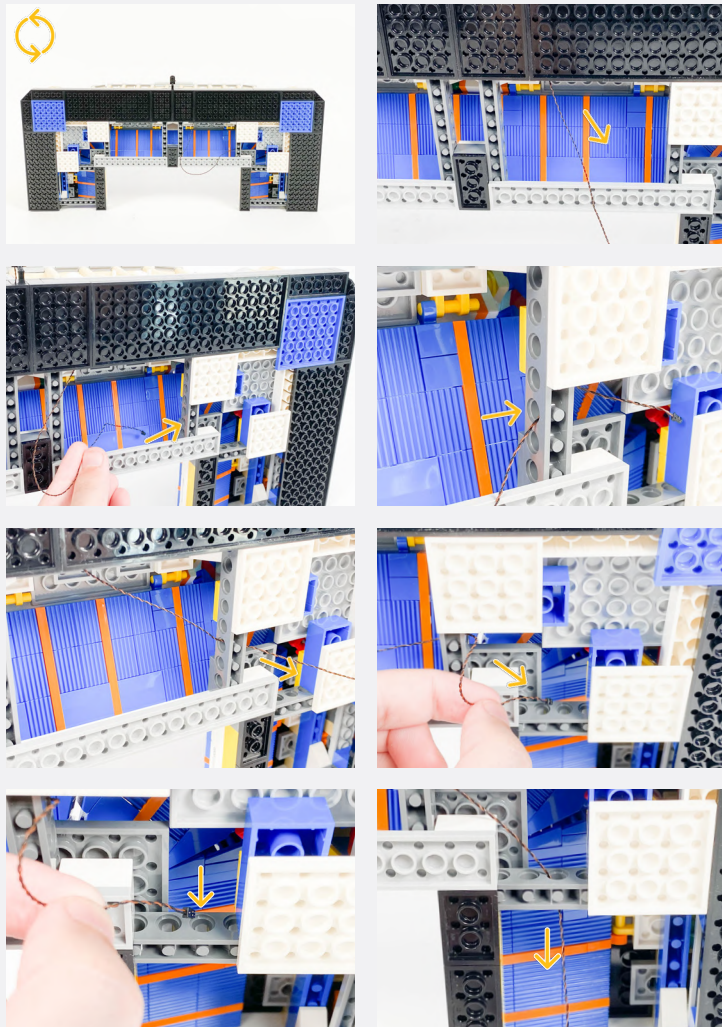
	<p>Black 1x1 Plate Modified Plate Rounded w/ Handle</p>
	<p>Black Arm Skeleton, Bent w Clips (Horizontal Grips)</p>
	<p>Black 1x1 Plate Modified Plate Rounded w/ Handle</p>

	<p>3 x Tile 1x2 - Black</p>
<p>Plate 1x2 MW Stud Jumper - Black</p>	

**Legend**

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

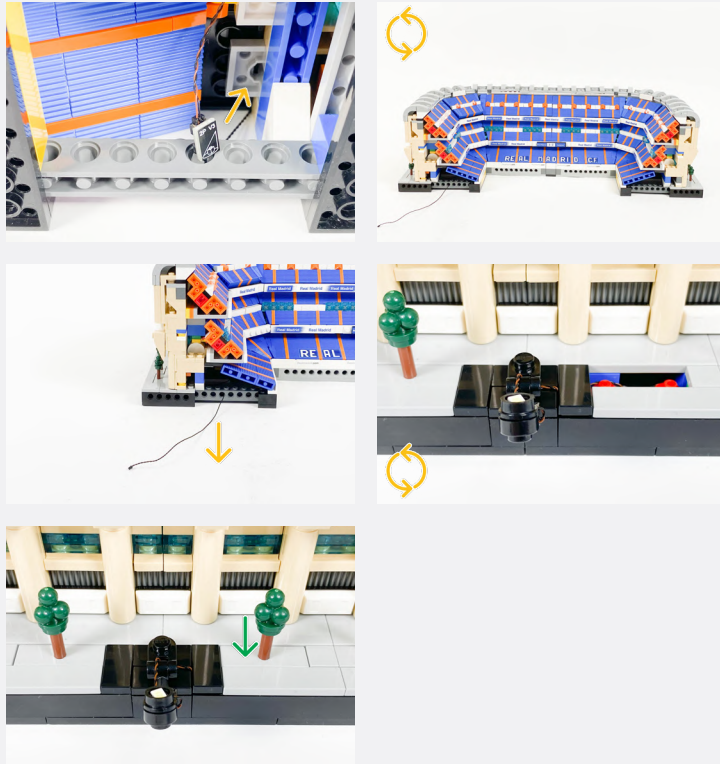
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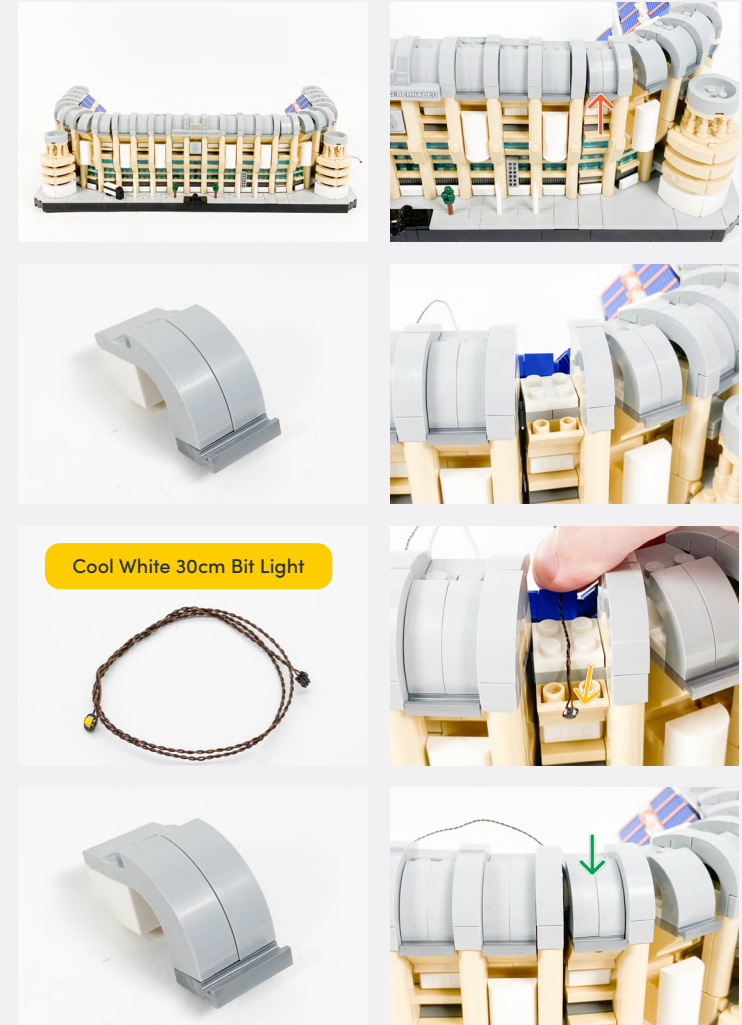
Legend

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



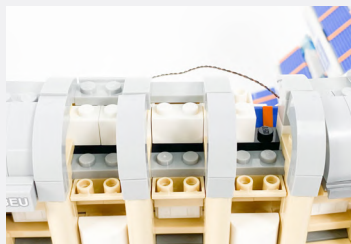
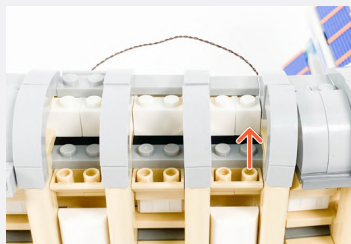


**4**

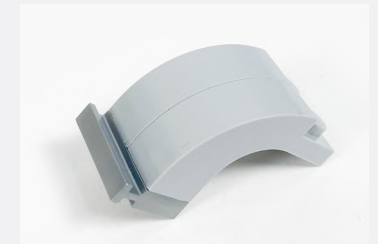
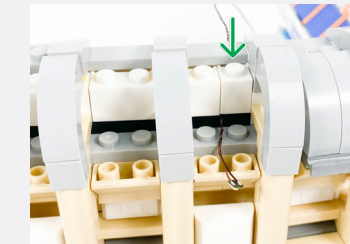
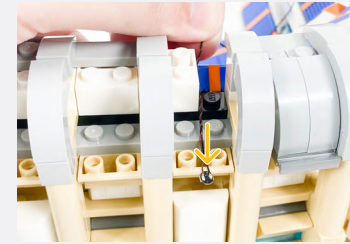


**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID ✨ POWER ON TEST 📝 NOTE ICON

5



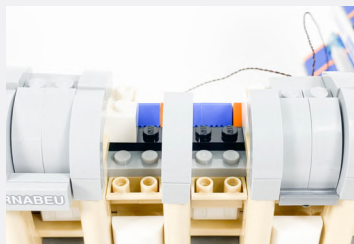
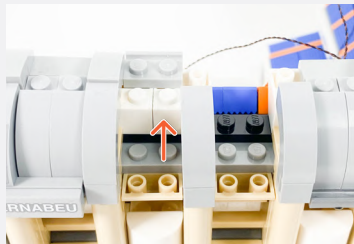
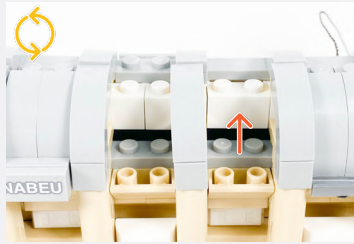
Cool White 30cm Bit Light



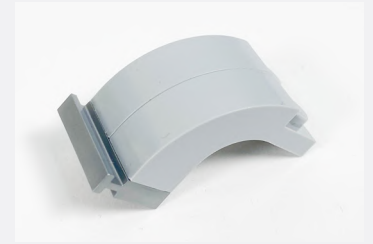
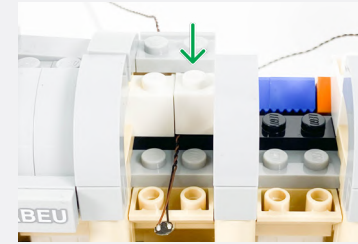
Legend

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

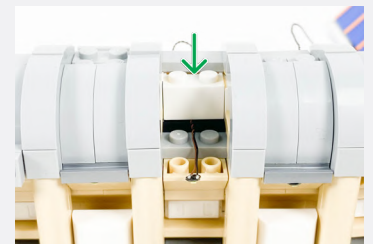
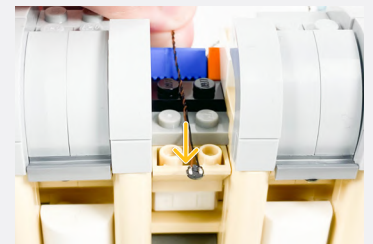
6



Cool White 30cm Bit Light



Cool White 30cm Bit Light

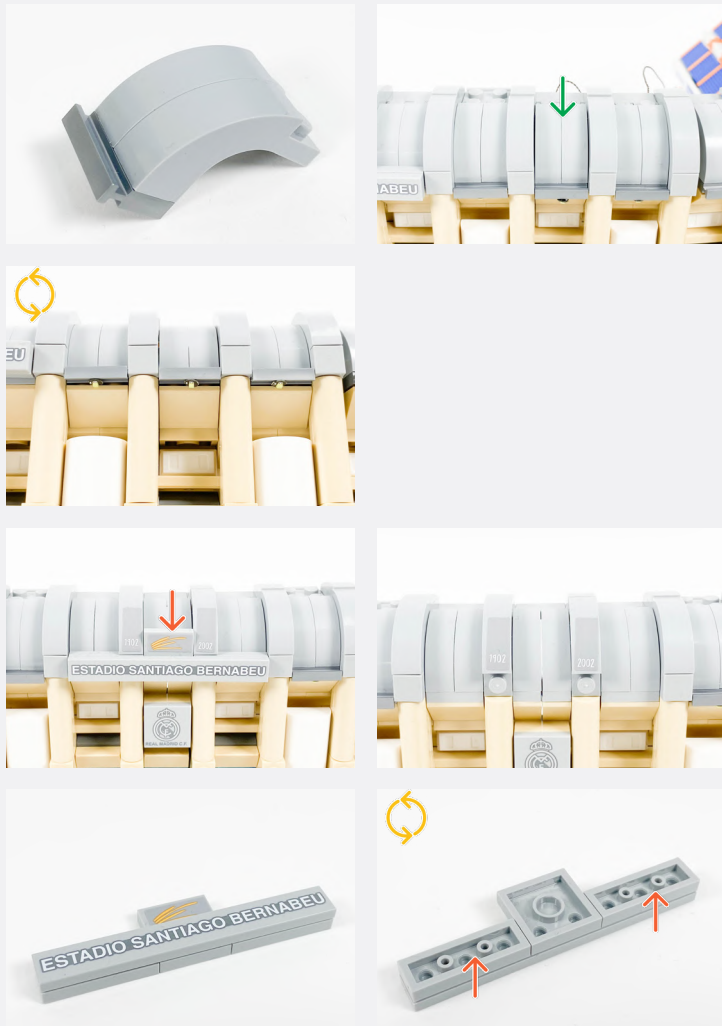


Legend

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



7

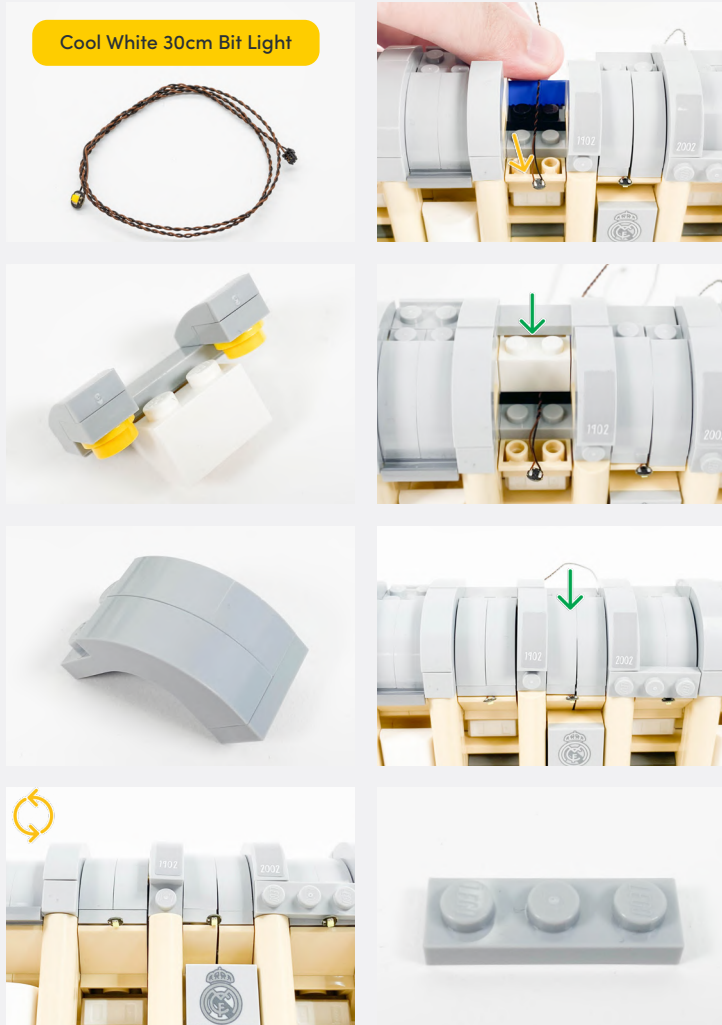


Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID ✨ POWER ON TEST 📝 NOTE ICON

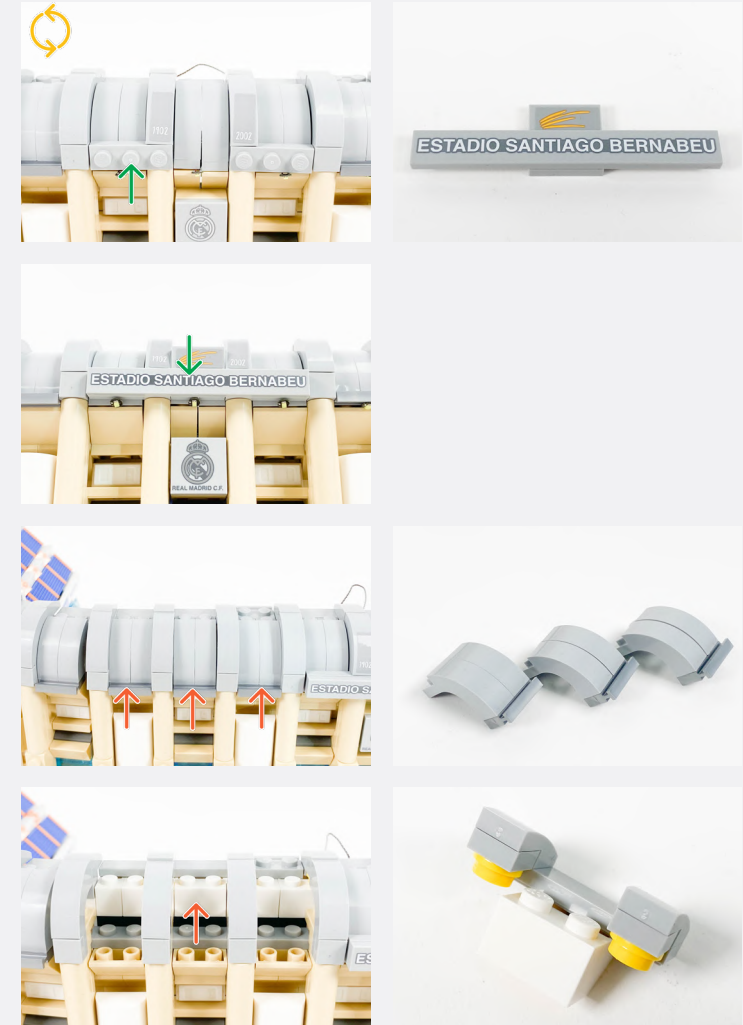
8



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

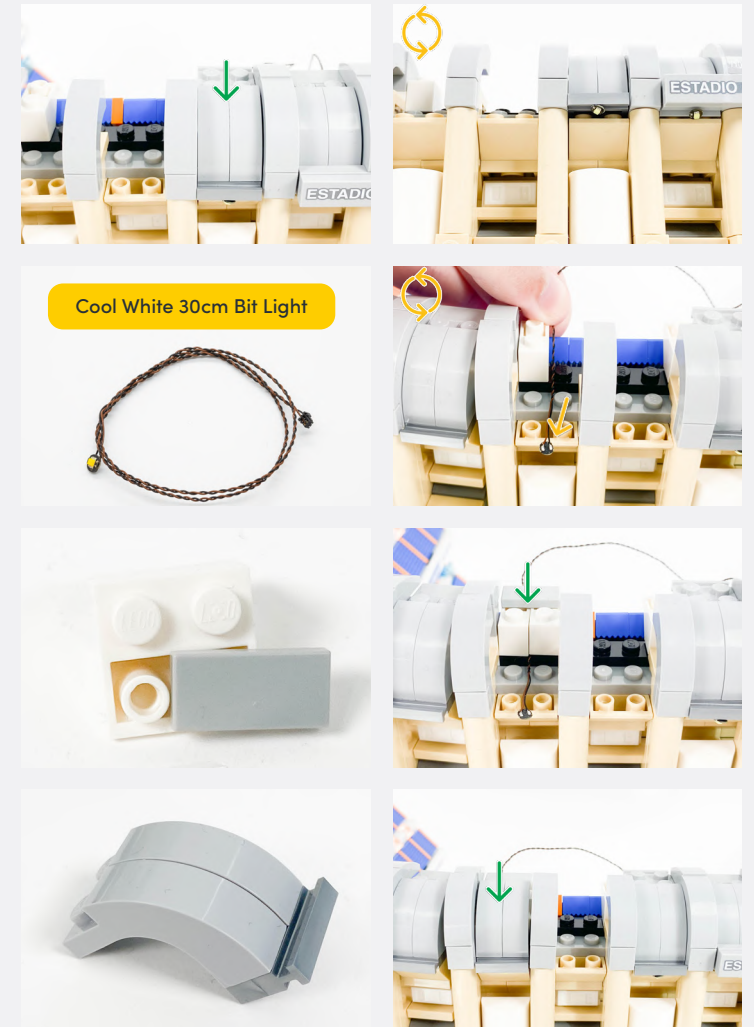
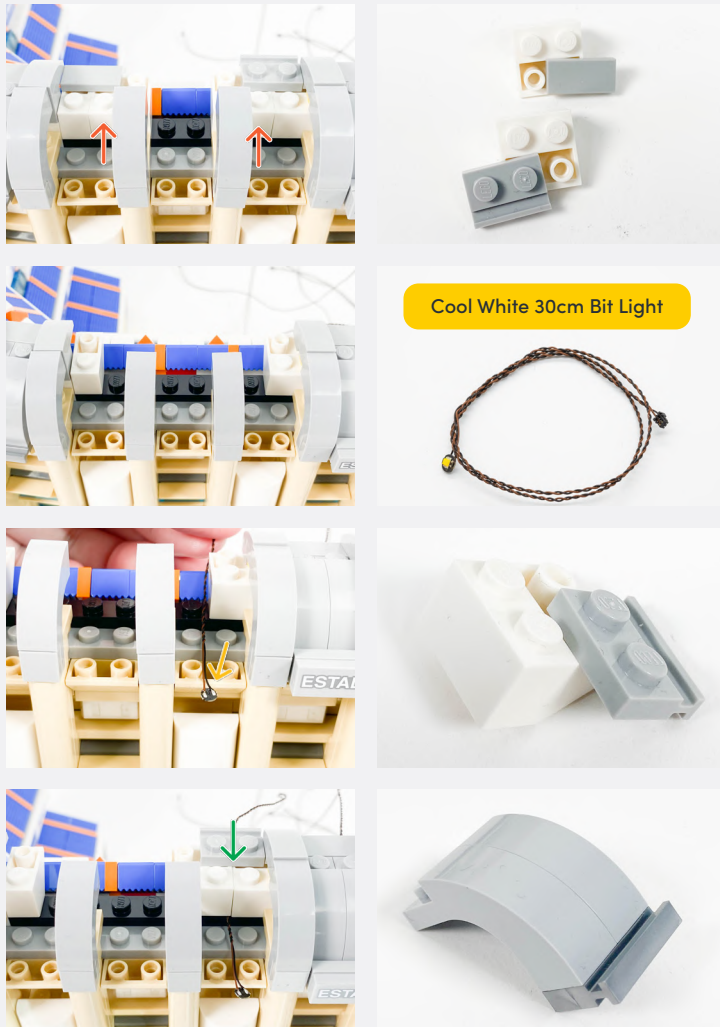


9



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

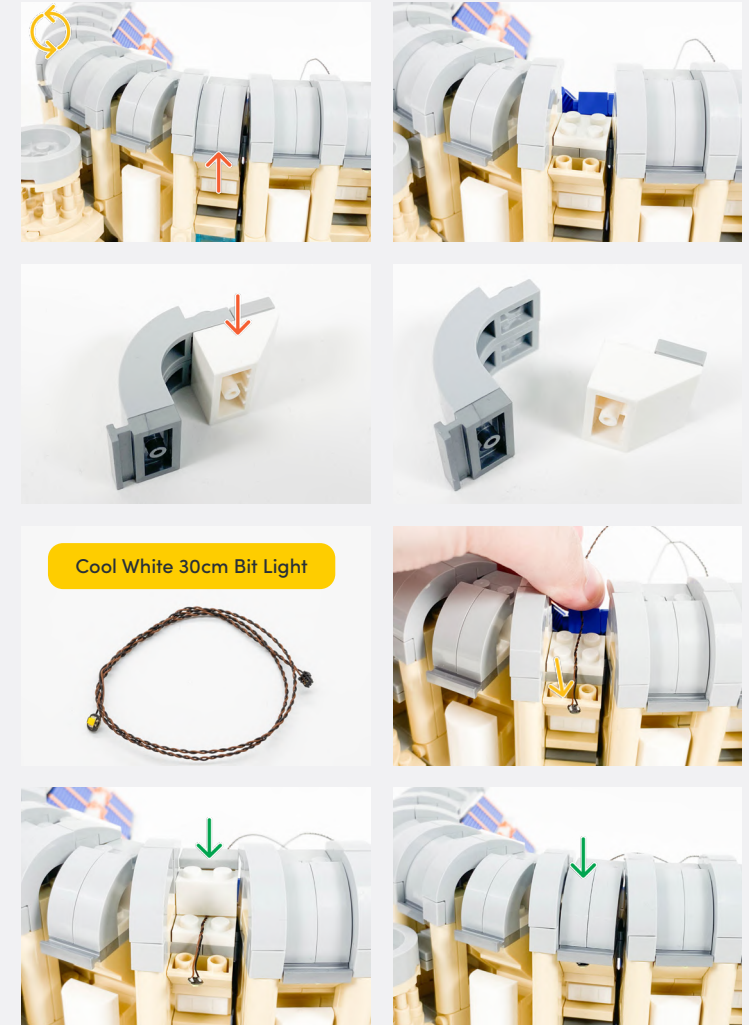




**Legend**    → DISCONNECT    → CONNECT / RECONNECT    ↻ TURN / FLIP    → DIRECTIONAL    ↻ TWIST / BRAID    ✨ POWER ON TEST    📝 NOTE ICON



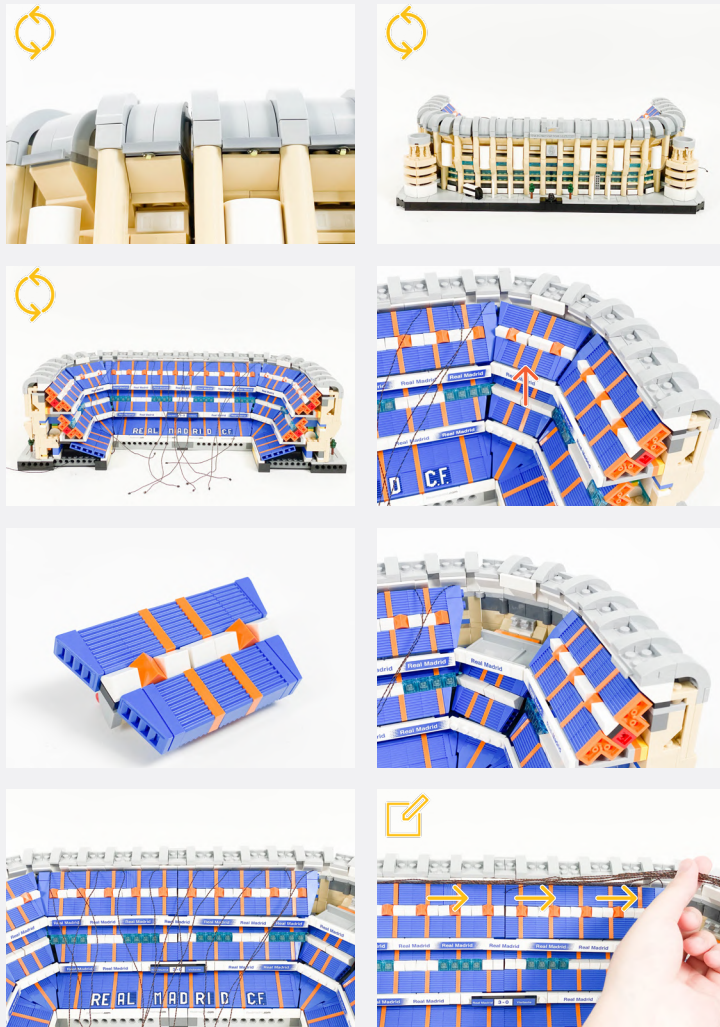
**10**



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



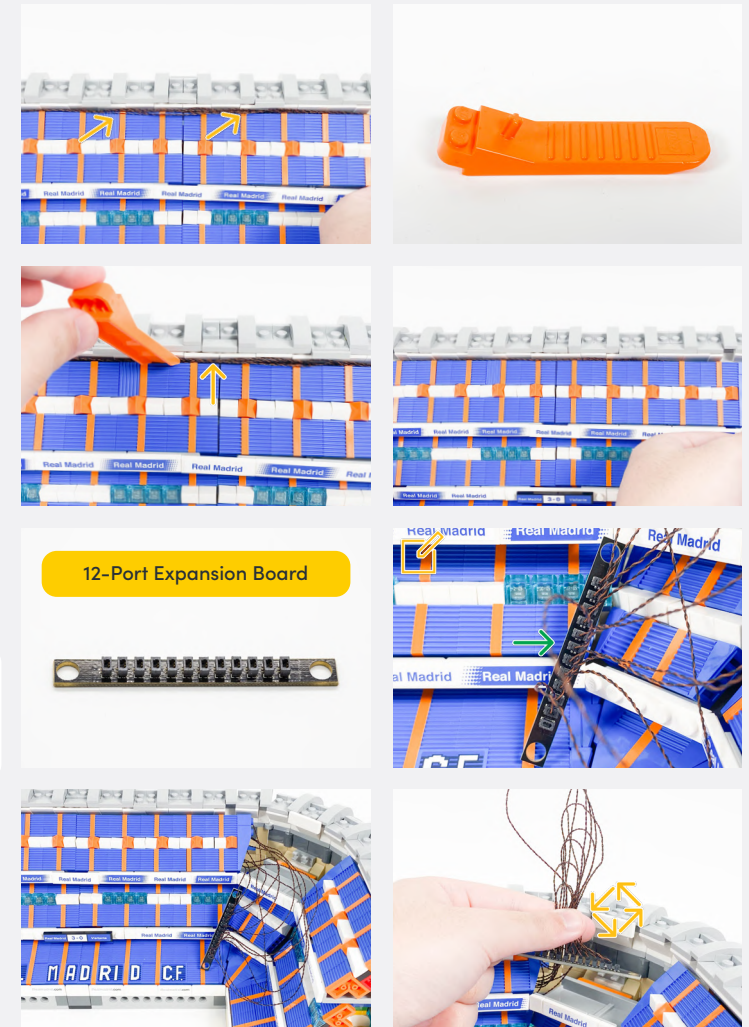
11



Pull the cables to the right, ensuring they are tucked behind the seats.

12

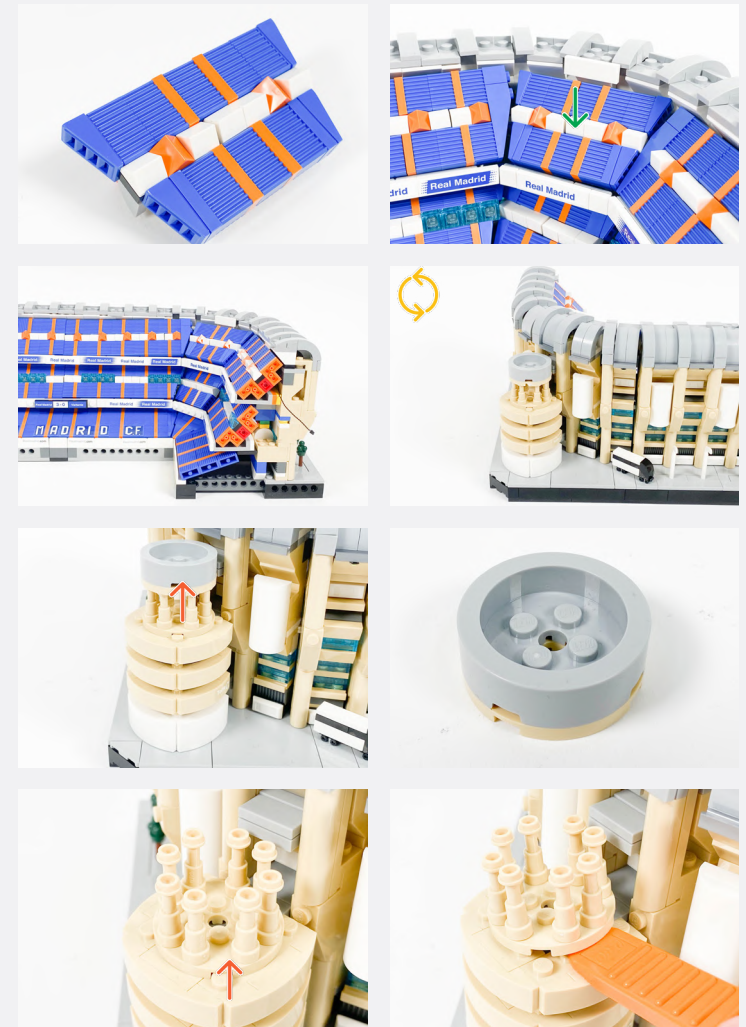
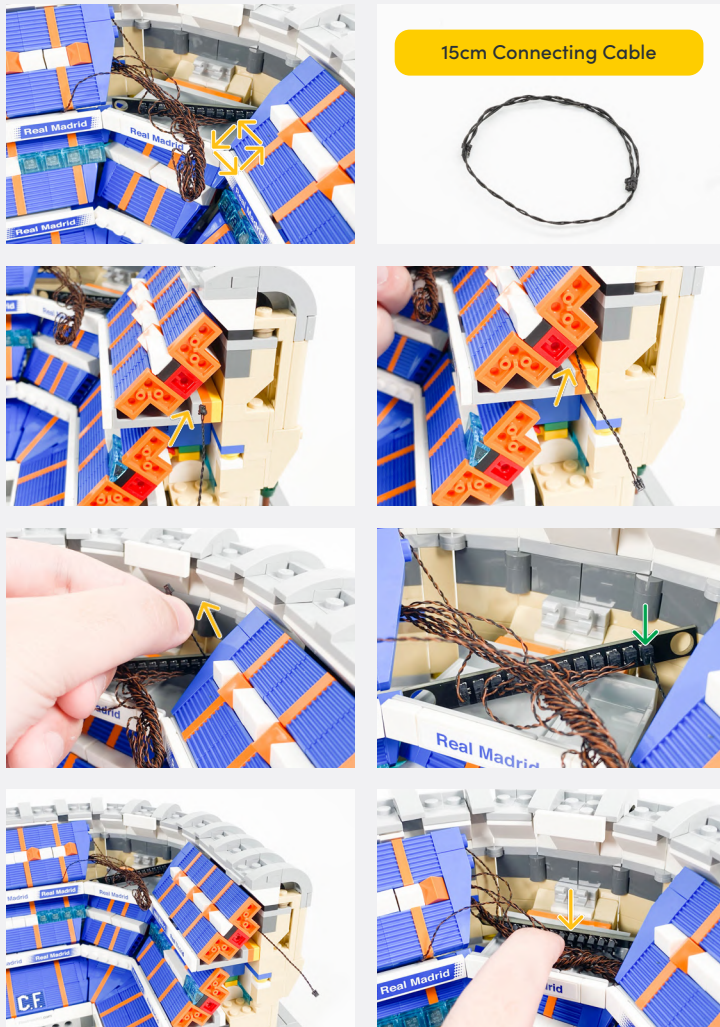
Connect all the Cool White 30cm Bit Lights to the 12-Port Expansion Board.



12-Port Expansion Board

Legend

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



**13**

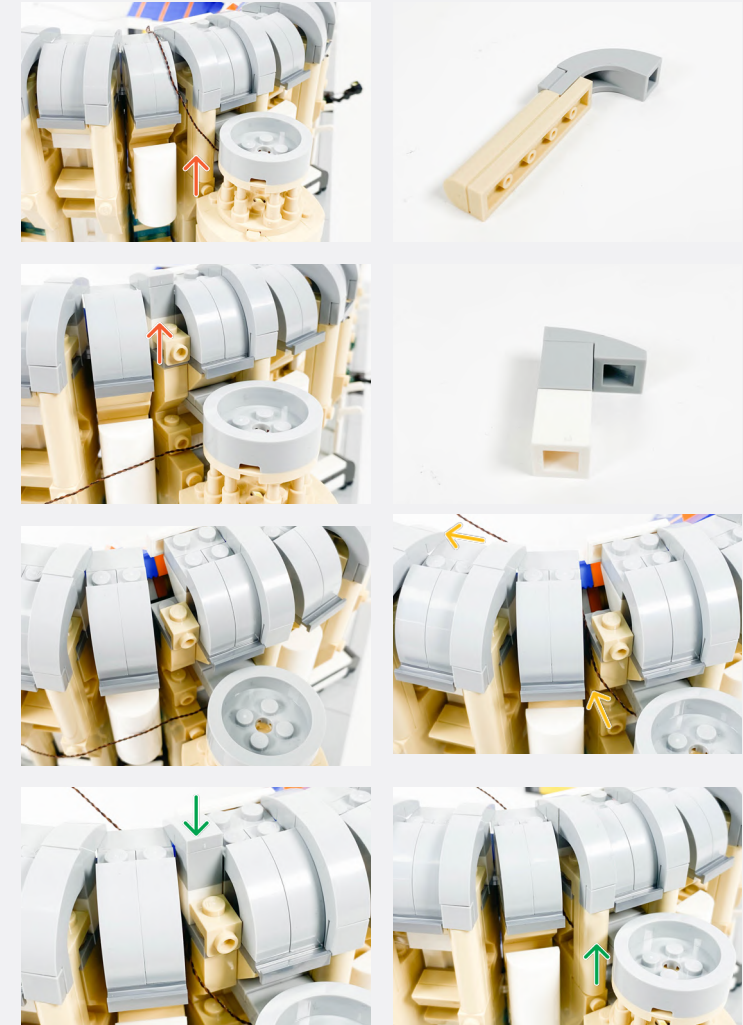
**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON





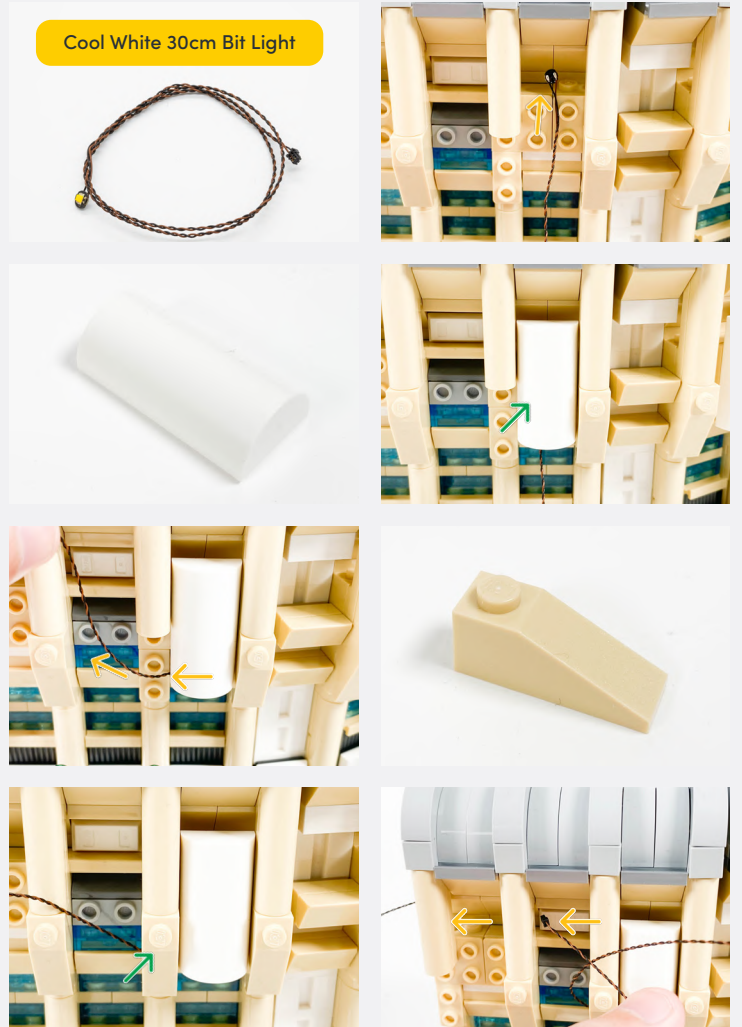
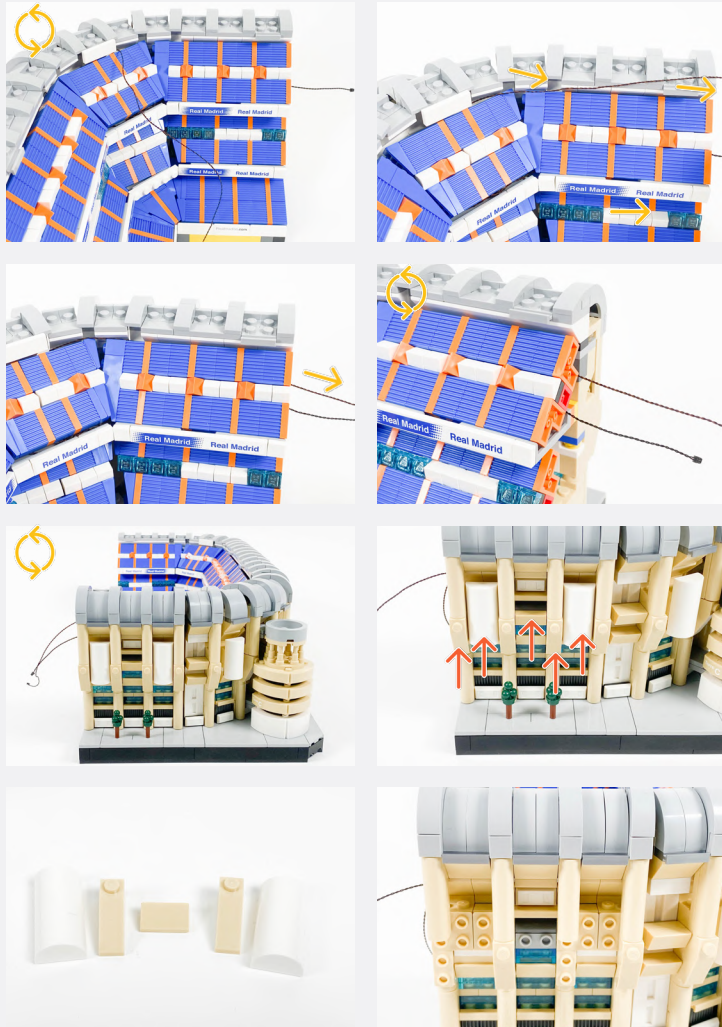
Cool White 30cm Large Bit Light

✎ Ensure the LED is visible through the hole



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

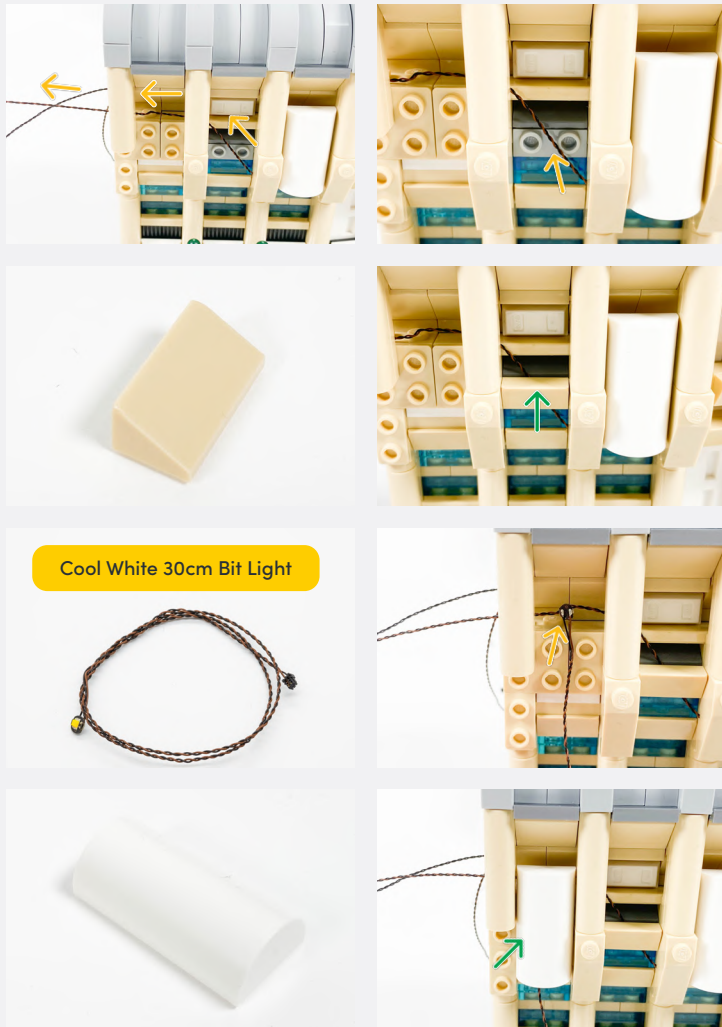
14



Cool White 30cm Bit Light

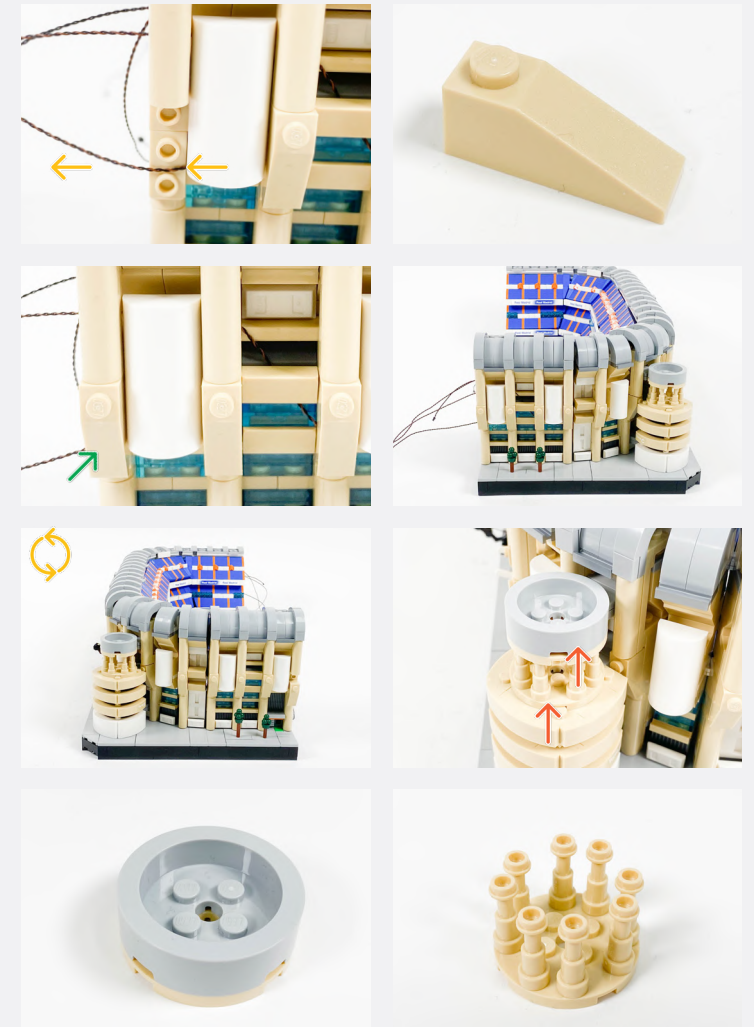
**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON



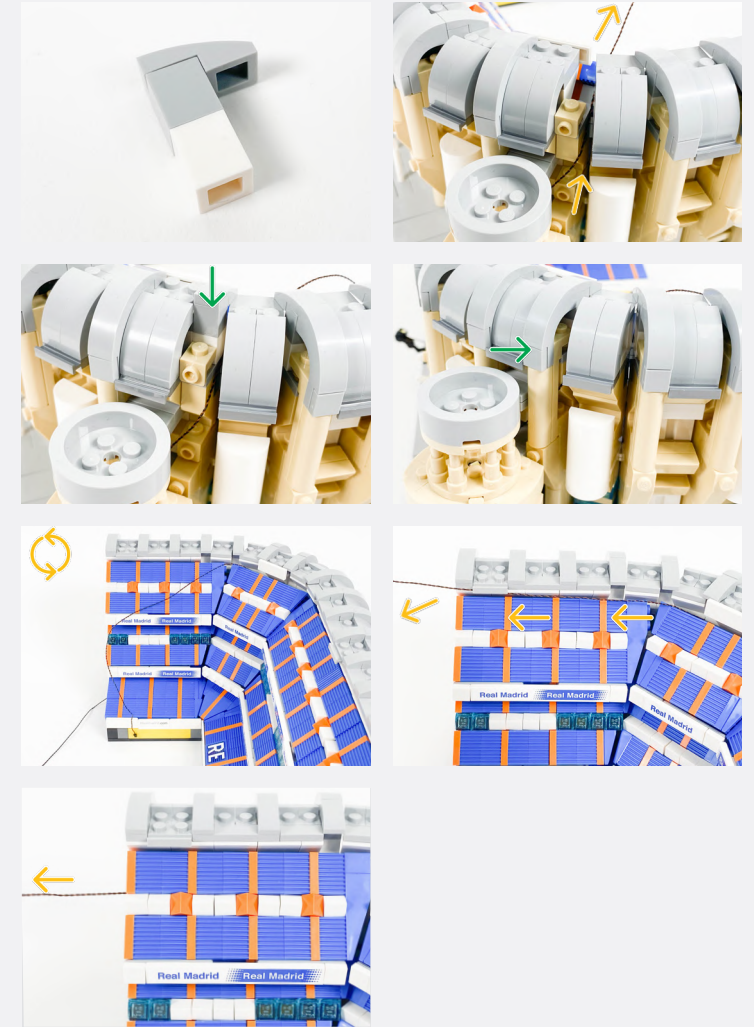


Cool White 30cm Bit Light

**15**

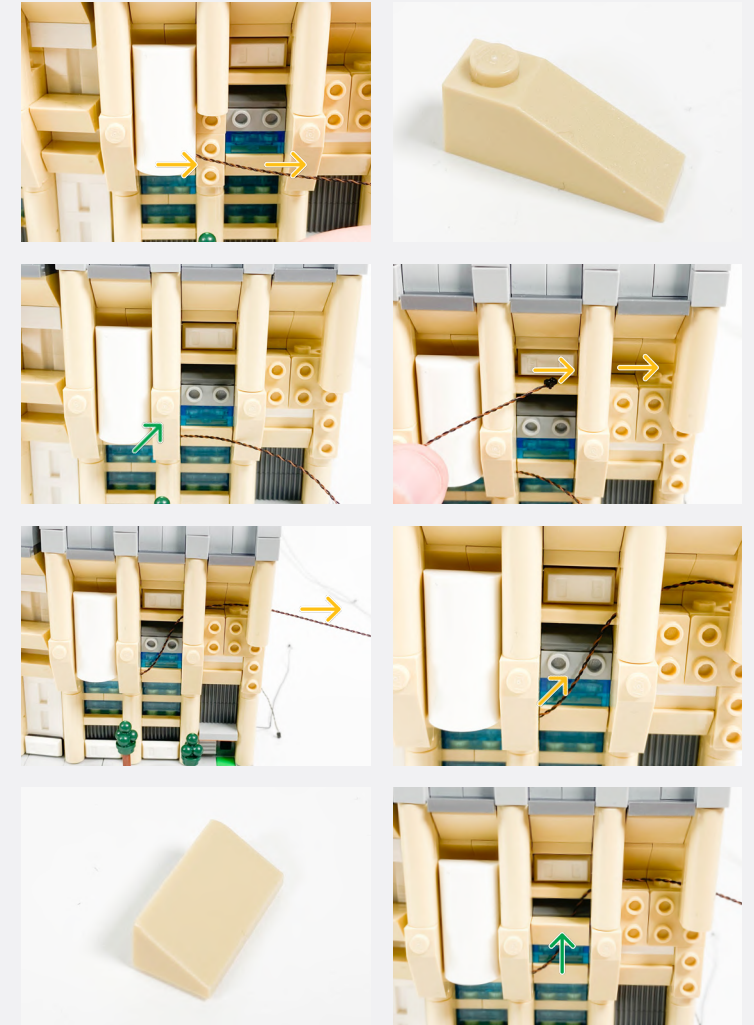


**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📝 NOTE ICON



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

16



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





**17**

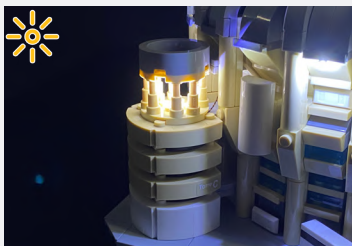
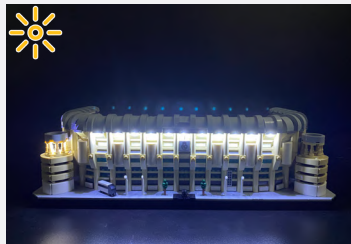
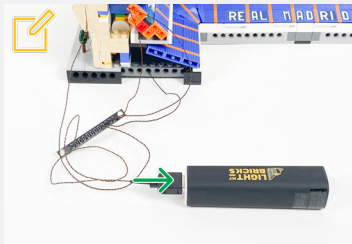
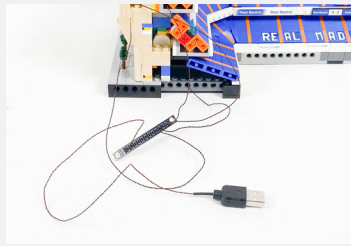


**Legend**   DISCONNECT   CONNECT / RECONNECT   TURN / FLIP   DIRECTIONAL   TWIST / BRAID   POWER ON TEST   NOTE ICON

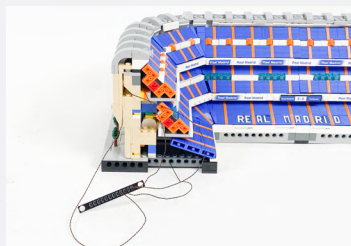


📌 If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing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

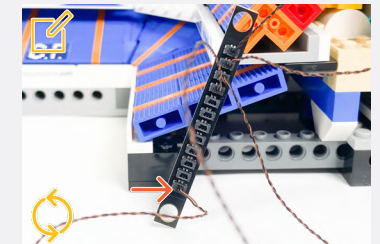
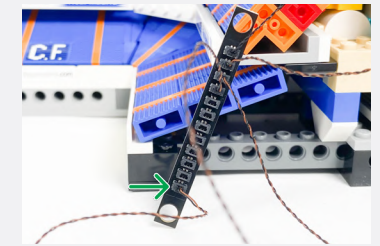
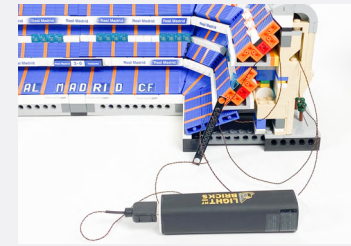
📌 Connect to a USB Power Bank, AA Battery Pack, or USB Wall Adapter (each sold seperately).



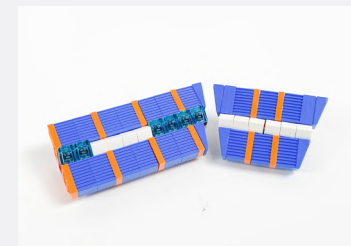
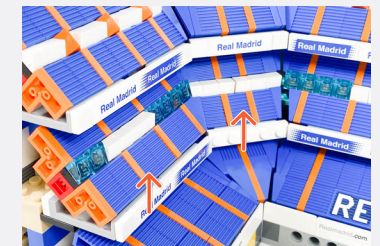
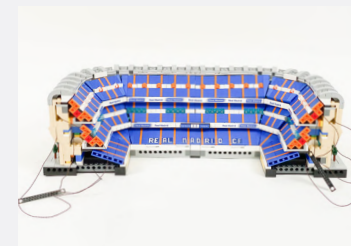
📌 Disconnect the USB Power Cable and connect it to the 12-Port Expansion Board on the right side.



📌 Disconnect the USB Power Cable



18



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



19

White Strip Light



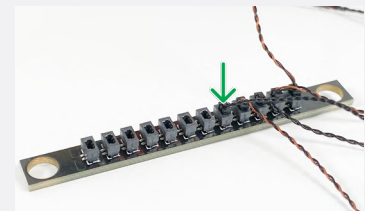
15cm Connecting Cable



5cm Connecting Cable

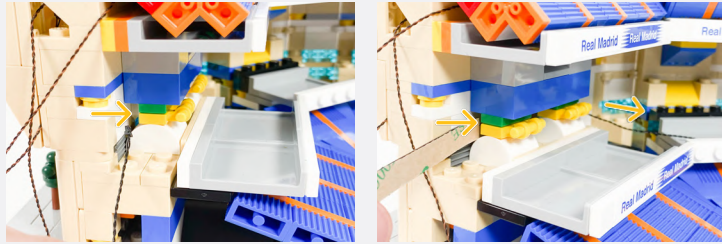


✂ Connect the other end of the 5cm Connecting cable to the 12-Port Expansion Board



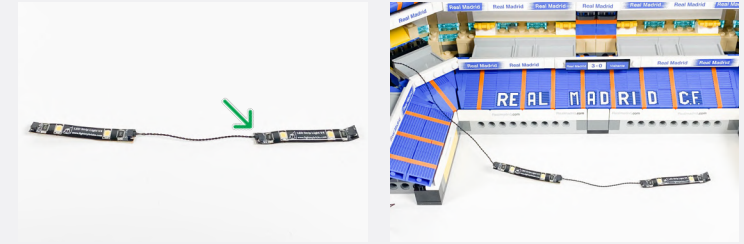
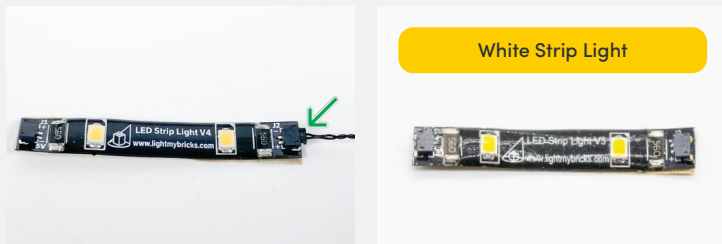
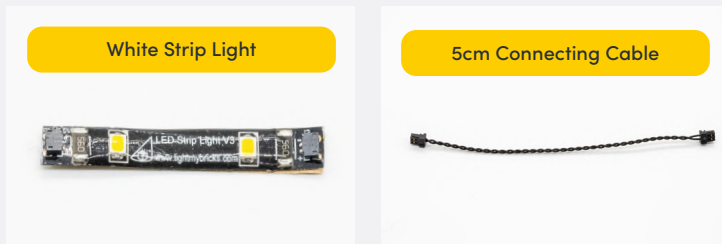
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↺ TWIST / BRAID \* POWER ON TEST 📌 NOTE ICON





Ensure the Strip Light is positioned behind the Green and Yellow LEGO 1x2 pieces.

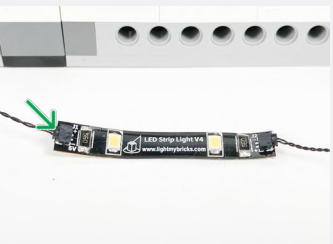
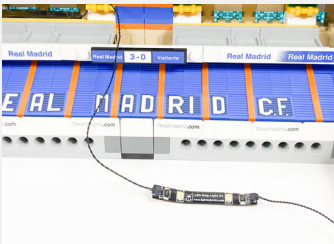
20



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



**21**

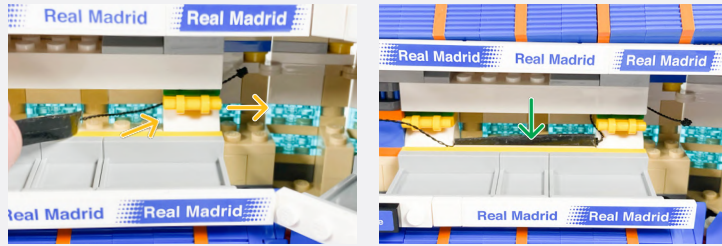


Legend

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



22



2x White Strip Light



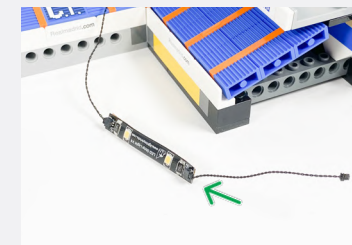
15cm Connecting Cable



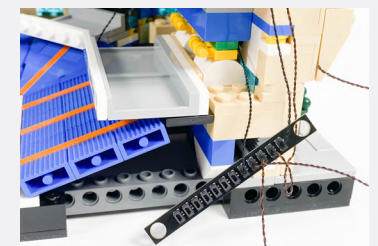
✂ Disconnect the seating area IF NEEDED, to allow for more hand space so that the Strip Light can be more easily connected.



5cm Connecting Cable



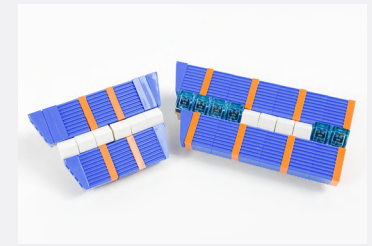
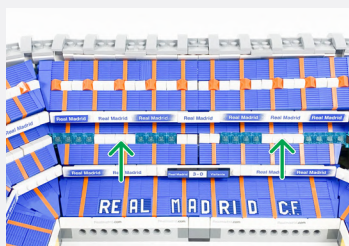
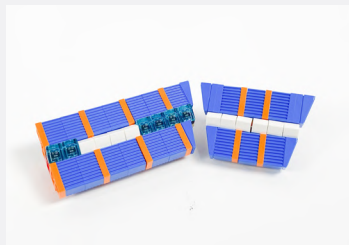
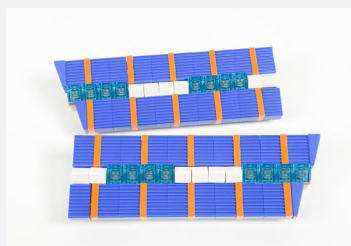
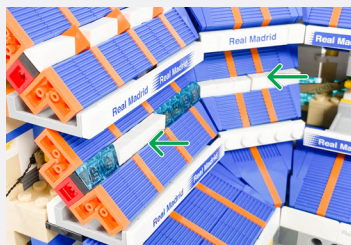
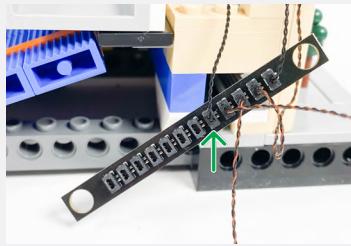
✂ Ensure the Strip Light is positioned behind the Green and Yellow LEGO 1x2 pieces.



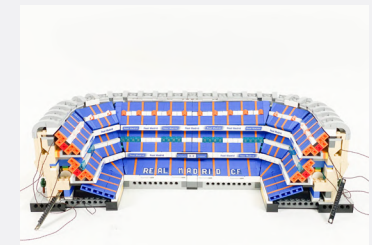
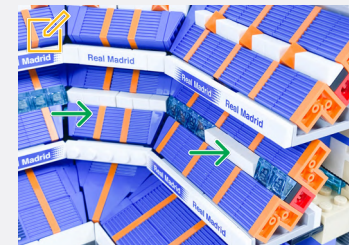
Legend → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↺ TWIST / BRAID ✨ POWER ON TEST 📝 NOTE ICON

📌 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.

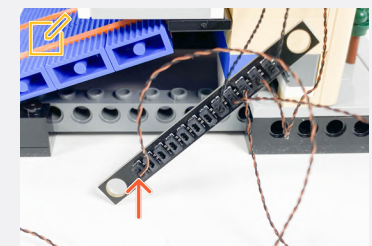
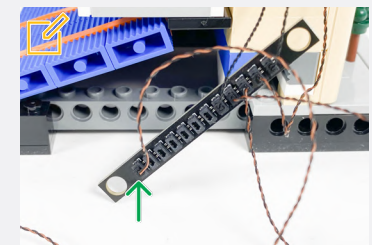
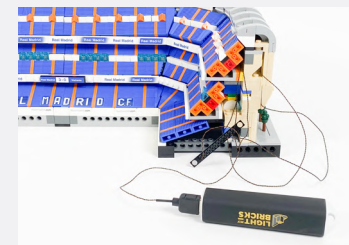
23



📌 If you are having trouble reconnecting the corner seats, disconnect the Red 1x1 Tiles with Clips from behind and reconnect them to the stadium first, then reconnect the seats.



📌 Reconnect the USB Power Cable to test the lights, before disconnecting again.



## Legend

DISCONNECT

CONNECT / RECONNECT

TURN / FLIP

DIRECTIONAL

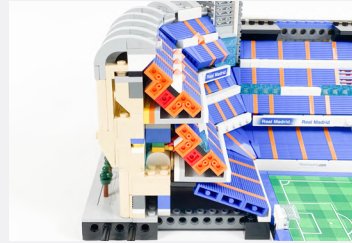
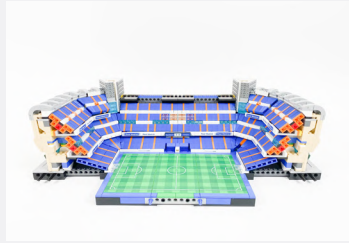
TWIST / BRAID

POWER ON TEST

NOTE ICON



24



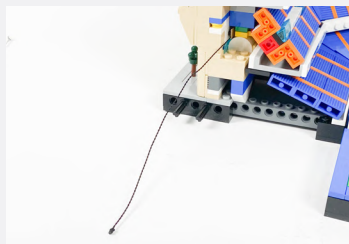
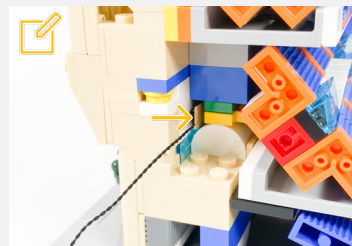
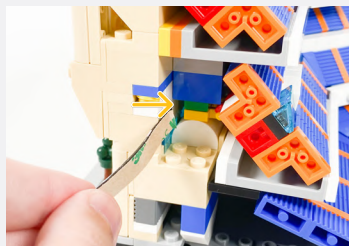
White Strip Light



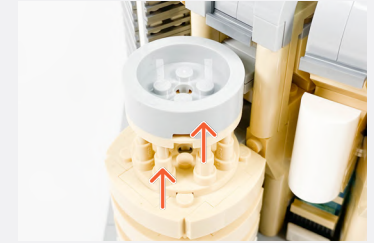
15cm Connecting Cable



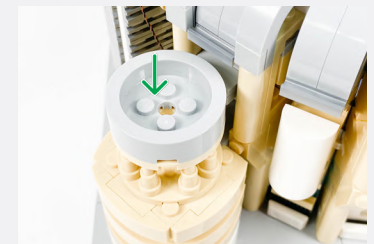
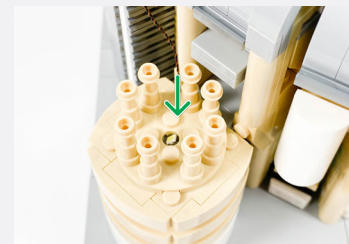
Ensure the Strip Light is positioned behind the Green and Yellow LEGO 1x2 pieces.



25

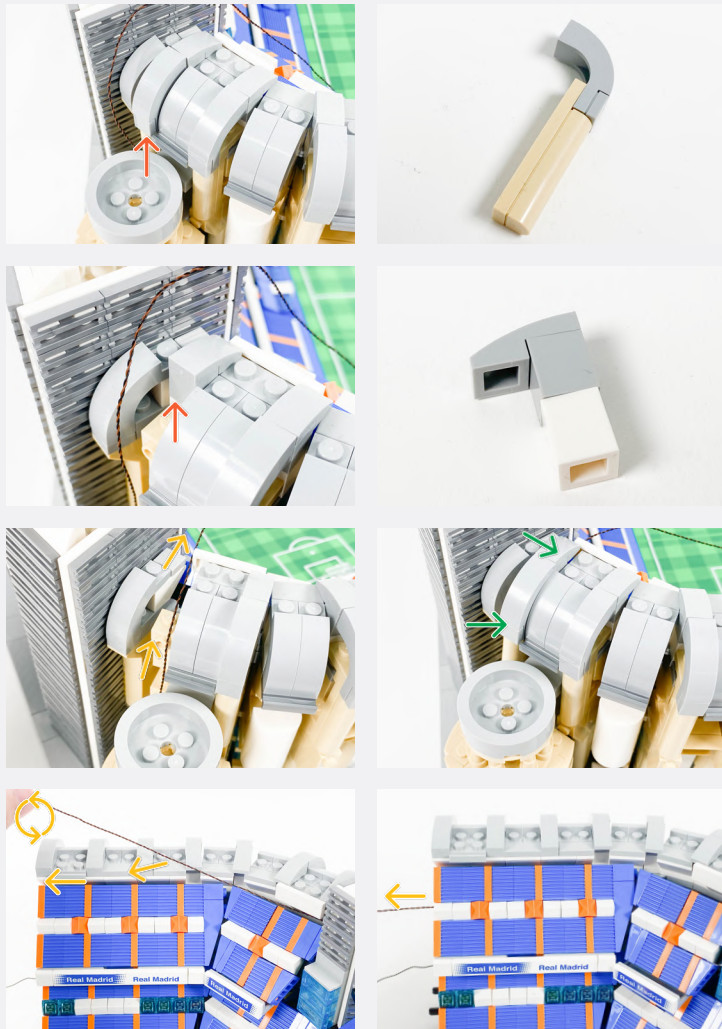


Cool White 30cm Large Bit Light

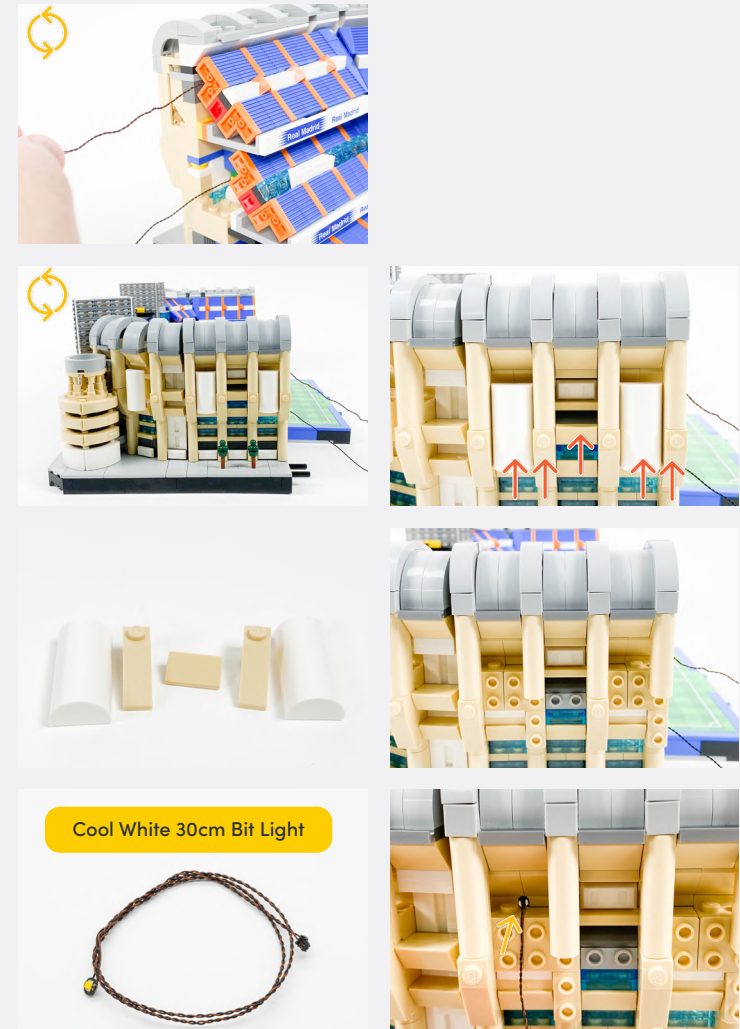


Legend

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



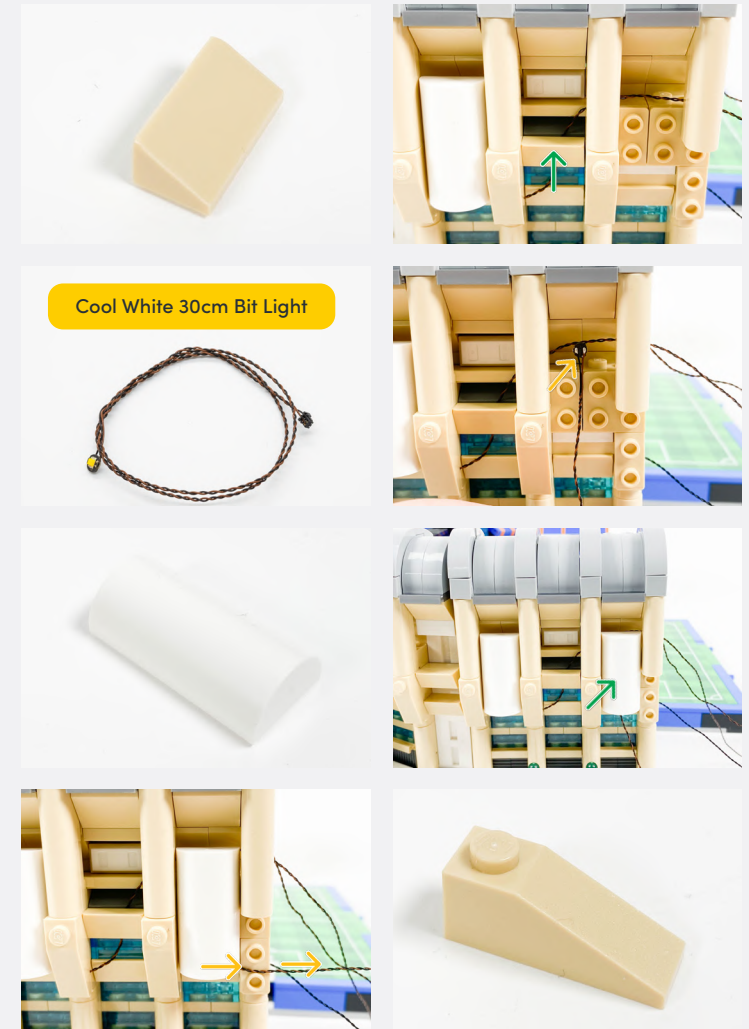
**26**



Cool White 30cm Bit Light

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

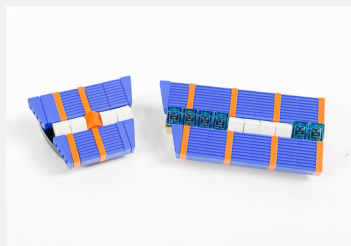
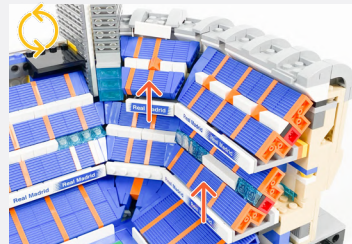
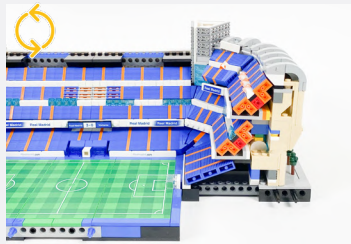
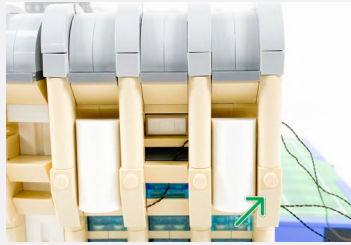




**Legend**

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

27



White Strip Light

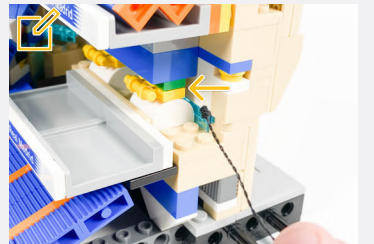


30cm Connecting Cable



15cm Connecting Cable

Thread the 30cm Connecting Cable through the gap.

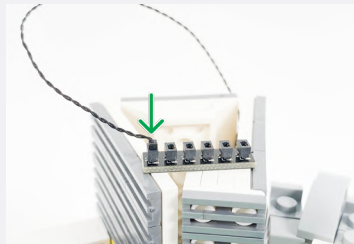
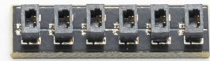


**Legend** → DISCONNECT → CONNECT / RECONNECT ↻ TURN / FLIP → DIRECTIONAL ↻ TWIST / BRAID \* POWER ON TEST 📌 NOTE ICON

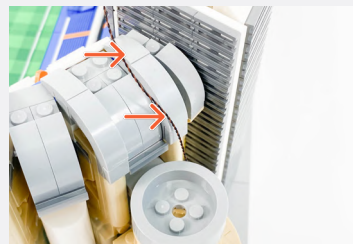
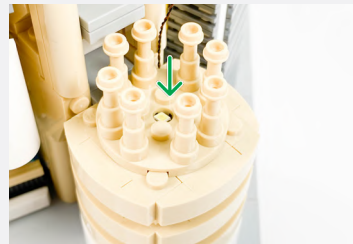
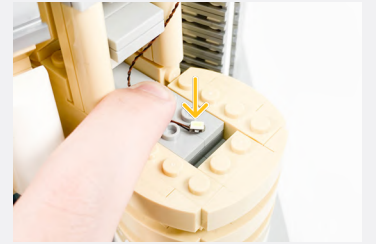




6-Port Expansion Board



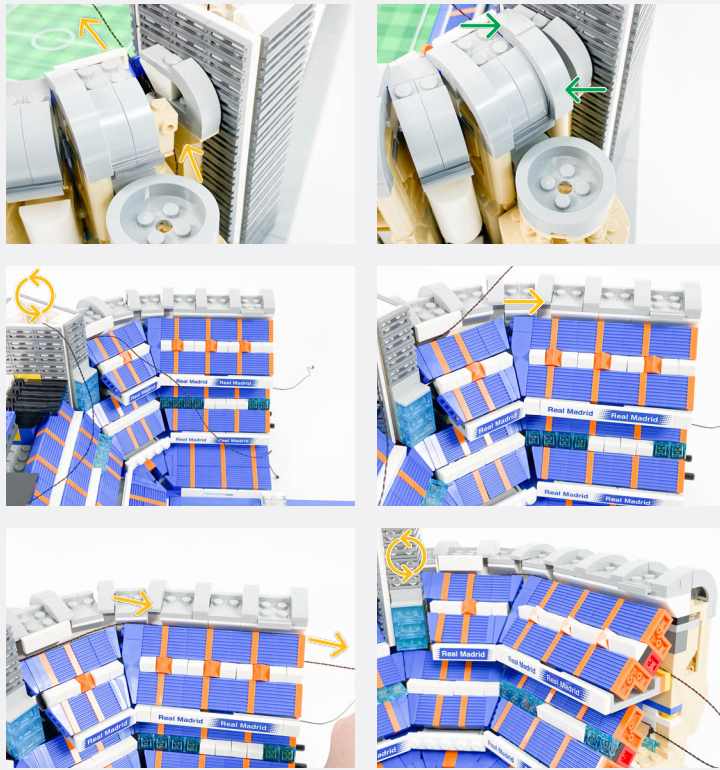
Cool White 30cm Large Bit Light



28

Legend

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

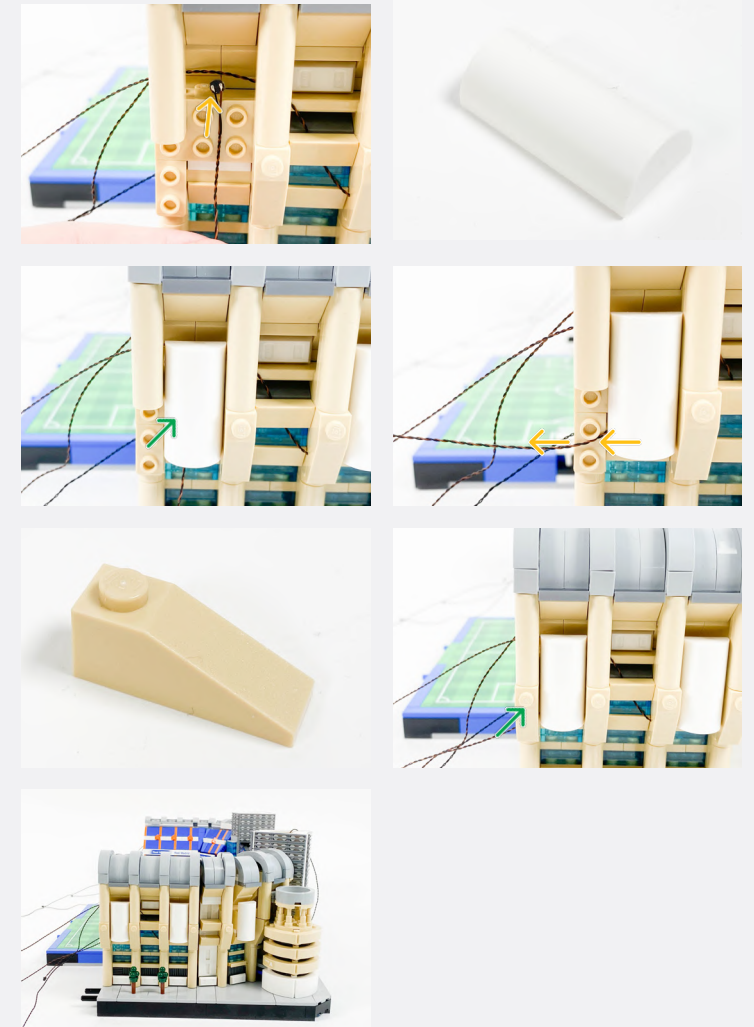


**29**



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



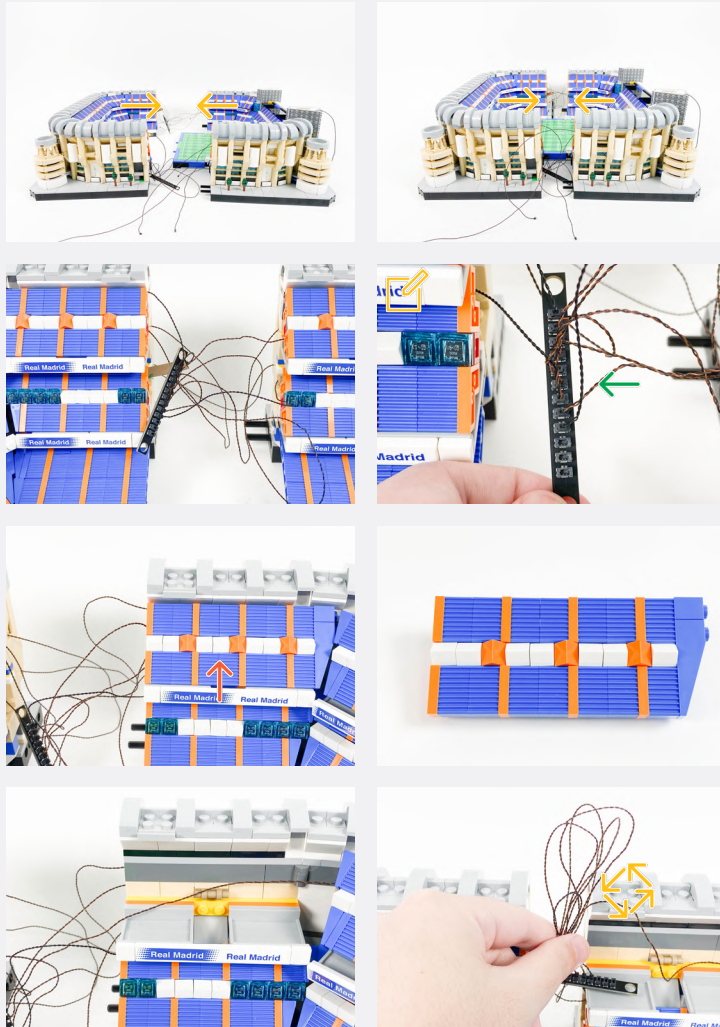


**Legend**

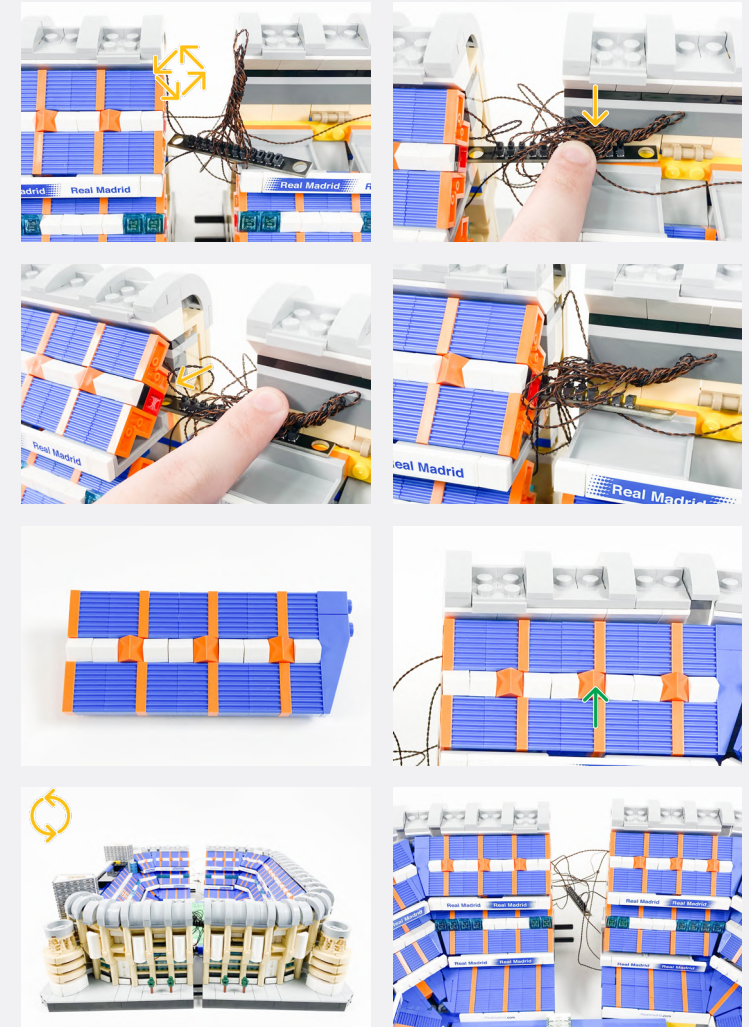
- DISCONNECT
- CONNECT / RECONNECT
- TURN / FLIP
- DIRECTIONAL
- TWIST / BRAID
- POWER ON TEST
- NOTE ICON

30

Connect the lights from the right side of the Stadium to the 12-Port Expansion Board



31



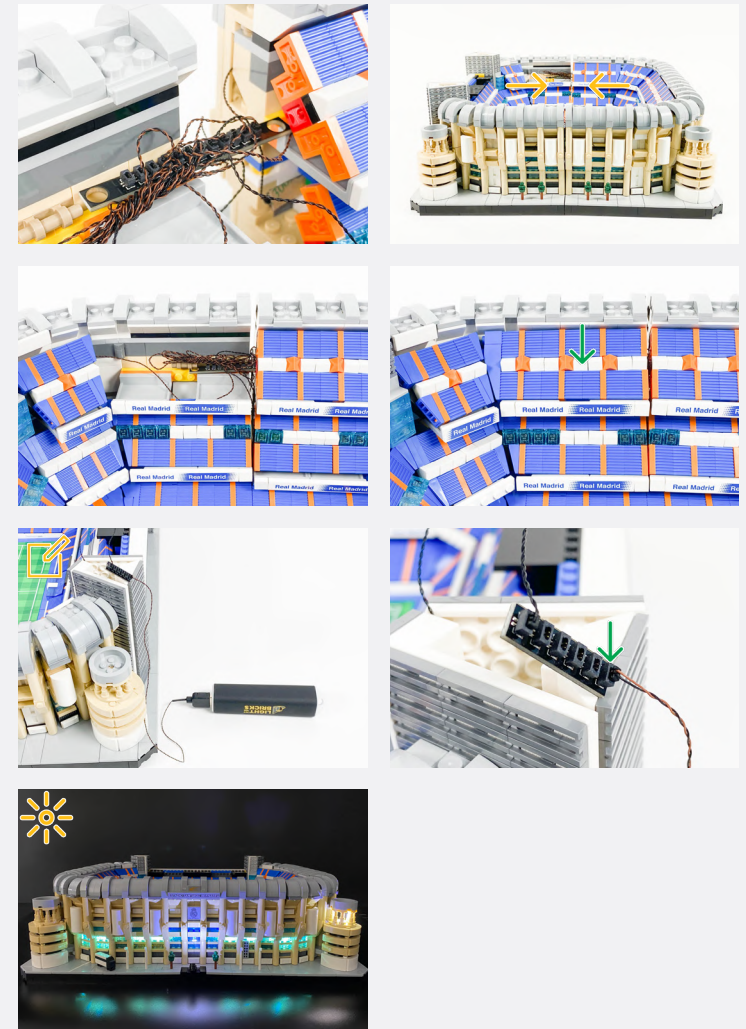
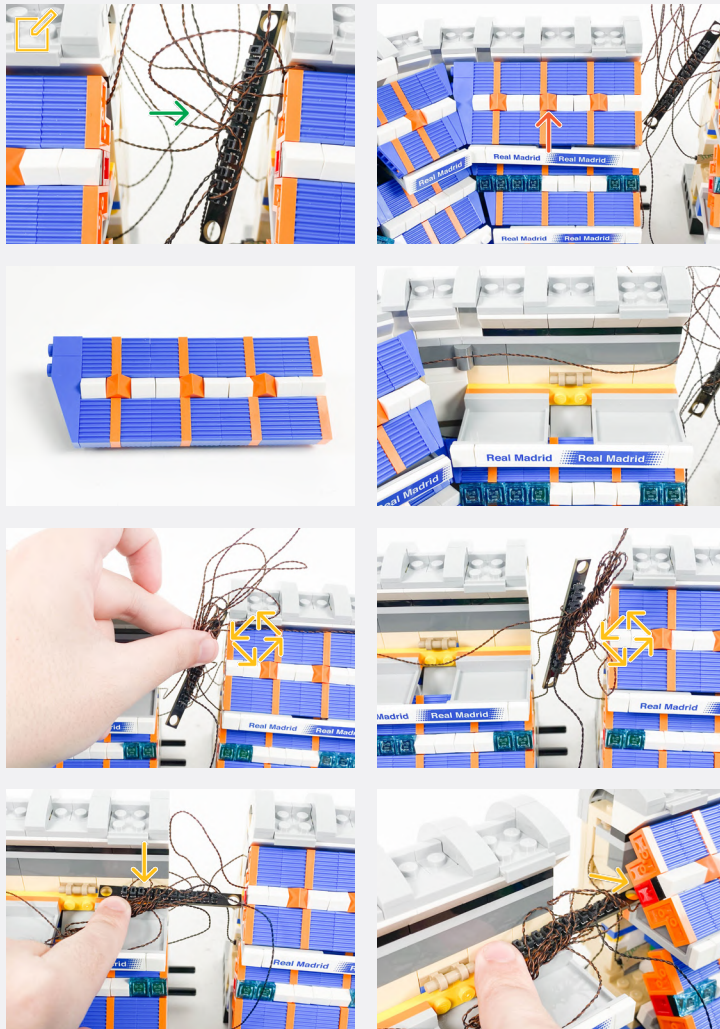
Legend

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



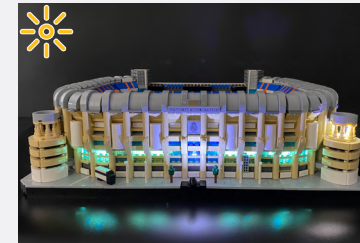
If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light or expansion board). To correct any issues with expansion board ports, please view the section addressing expansion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

Connect the lights from the left side of the Stadium to the 12-Port Expansion Board



32

Reconnect the USB Power Cable for the final time.



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



33



White Strip Light



15cm Connecting Cable



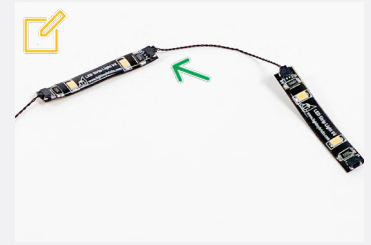
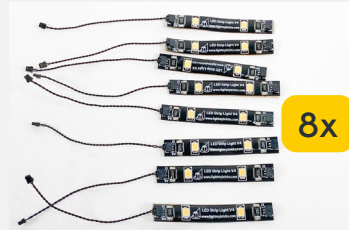
White Strip Light



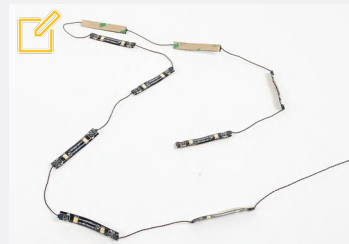
5cm Connecting Cable



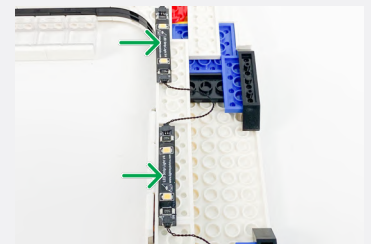
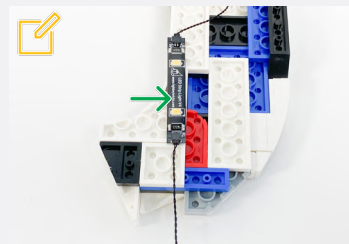
Connect the Strip Light with the 15cm Connecting Cable to a Strip Light with a 5cm Connecting Cable.



Connect the remaining Strip Lights with 5cm Connecting Cables but ensure to leave the other end of the 15cm Connecting Cable free.

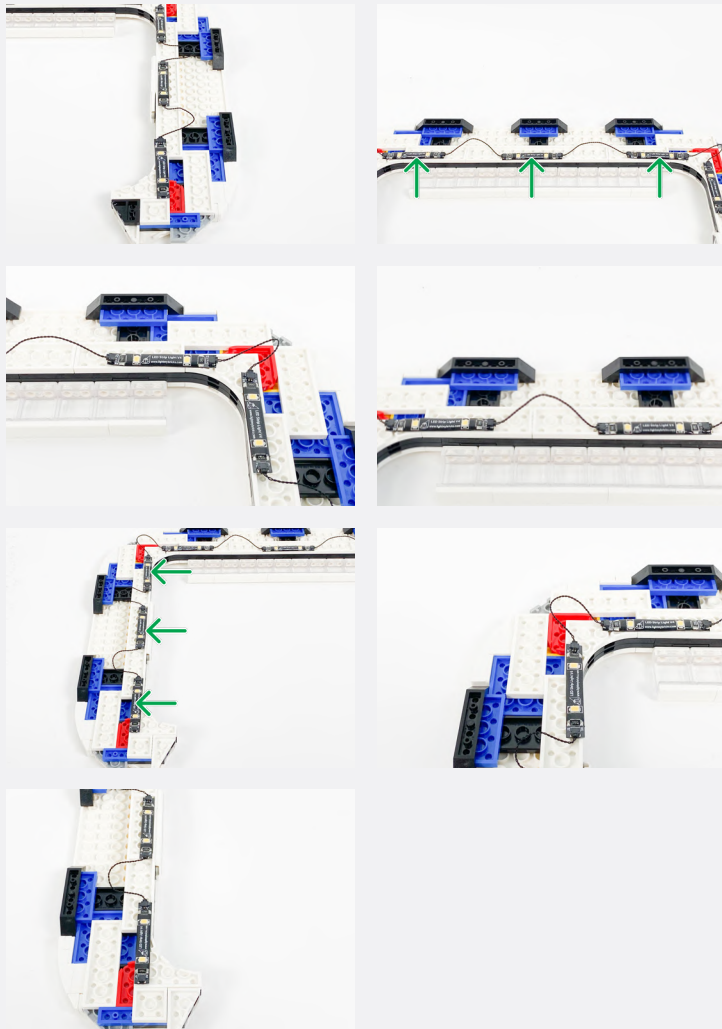


Connect the Strip Light with the 15cm Connecting Cable first.



Legend

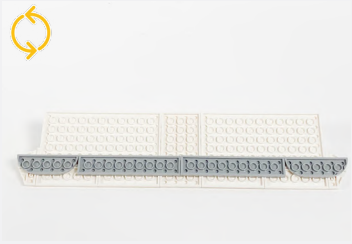
- DISCONNECT
- CONNECT / RECONNECT
- TURN / FLIP
- DIRECTIONAL
- TWIST / BRAID
- POWER ON TEST
- NOTE ICON



34



White Strip Light



5cm Connecting Cable



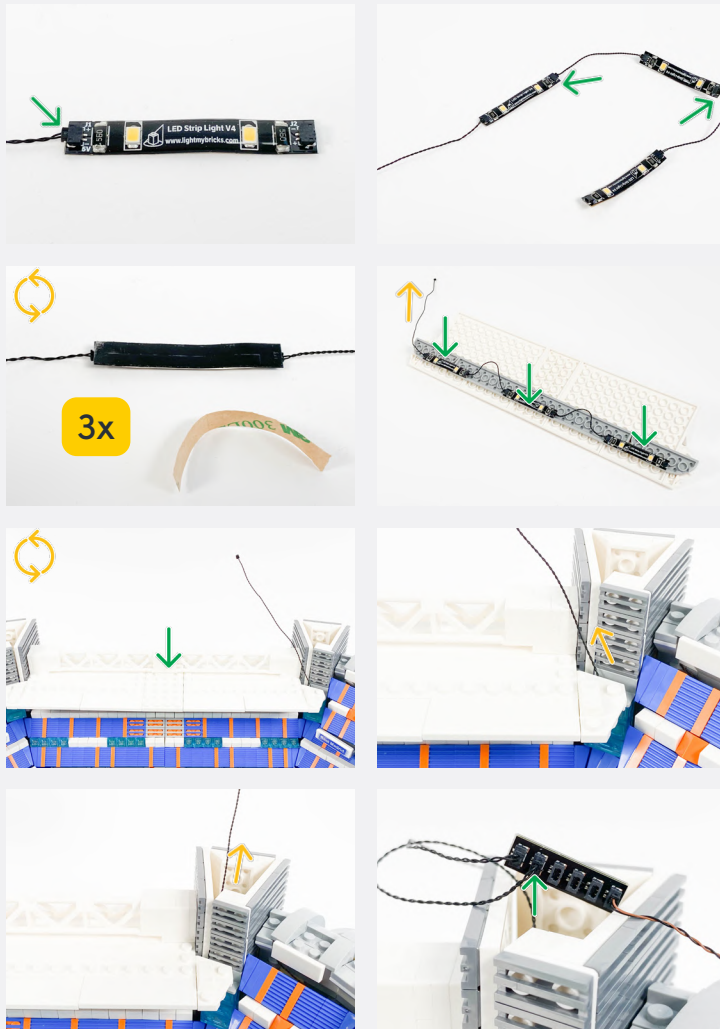
White Strip Light



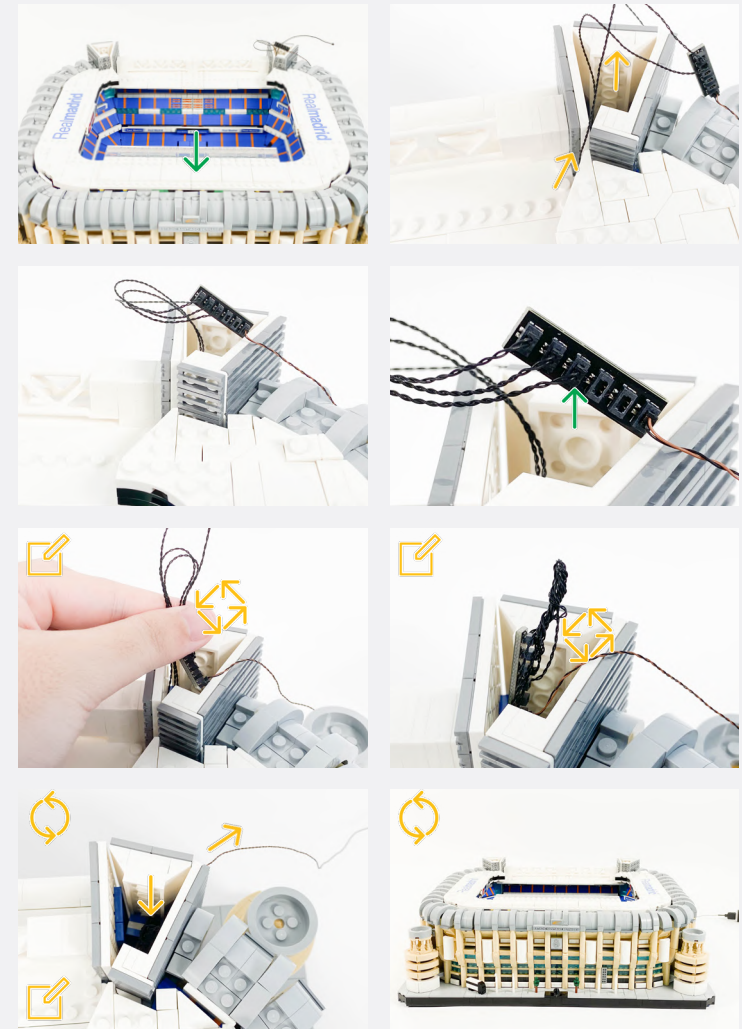
15cm Connecting Cable



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



35

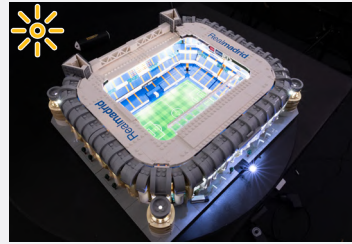


✍ Exclude the USB Power Cable from the twisting and instead ensure the cable threads out behind as shown.

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.

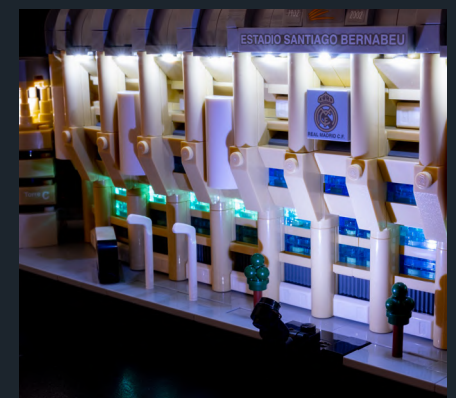
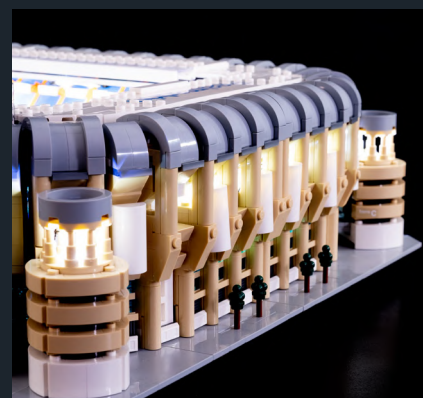
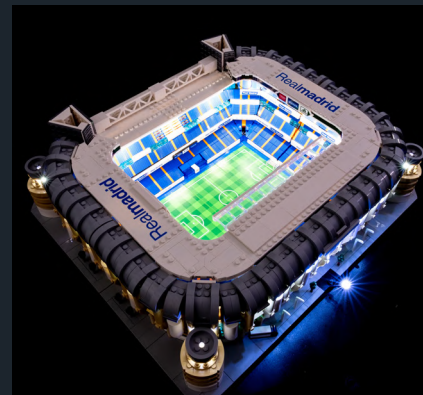
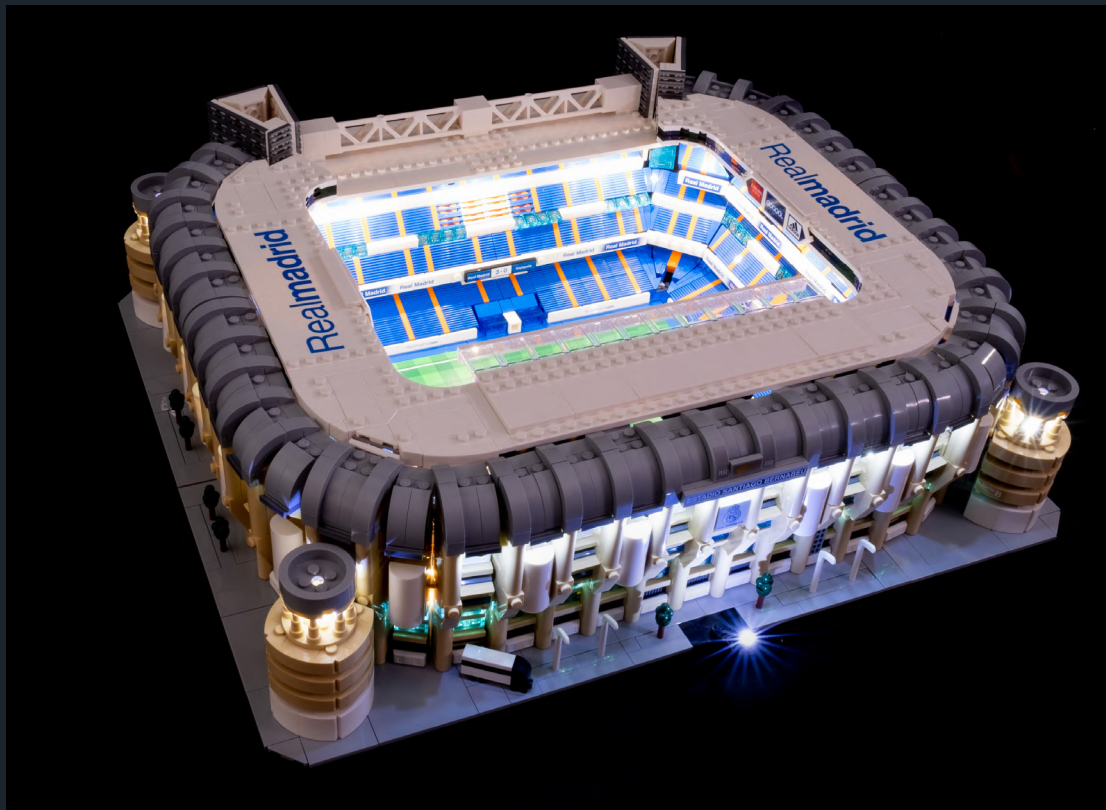


Legend

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

## FINAL PRODUCT

This finally completes installation of the Light My Bricks Real Madrid - Santiago Bernabeu Stadium 10299 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.



## Troubleshooting

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

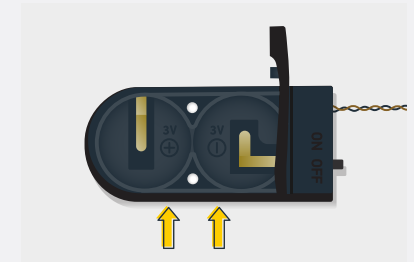
**If the batteries have no power, replace the batteries.**

**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.

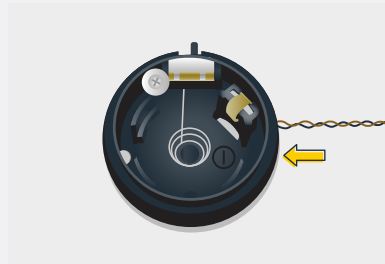
On the opposite side, the “-” side of the battery pack should have the battery flipped upside down, that is the “+” symbol facing upwards.



## Troubleshooting

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

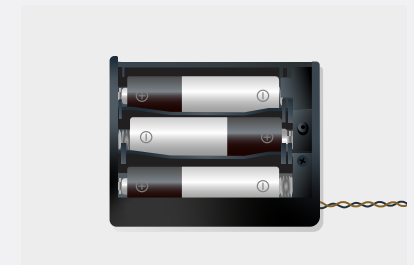
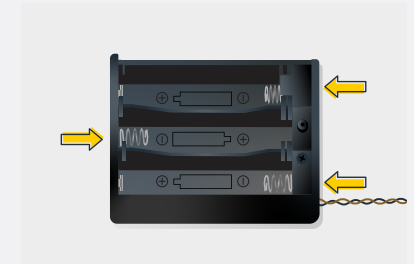
Inside the battery pack is a symbol indicating which side the (round) CR2032 battery should be inserted. In this case, for the stacked battery pack, ensure that BOTH batteries have the “+” symbol facing upwards.



### 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

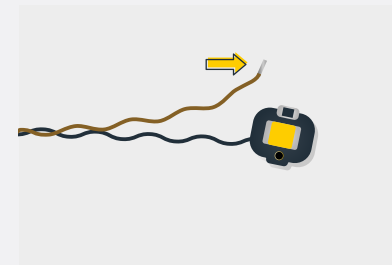
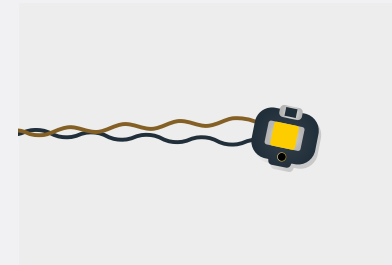
## Check Your Wires

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.





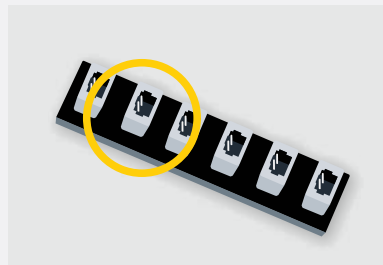
# Troubleshooting

## 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.

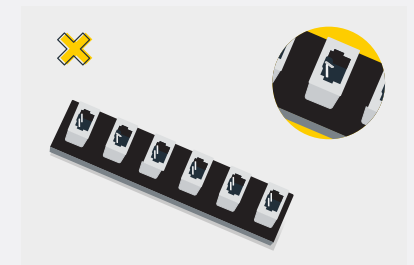
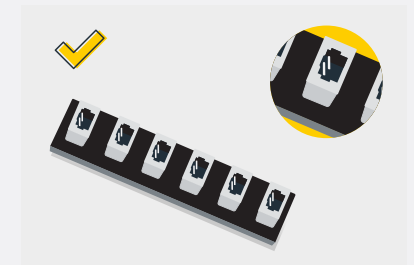
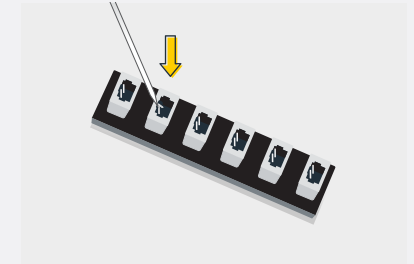
Not only will a light connected to the damaged port not work, but if the pins inside the port are bent to a point they are touching each other, this can result in all other lights in the system to stop working. This is a short circuit.



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.

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

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

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



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