

LEGO OPTIMUS PRIME #10302 LIGHT KIT INSTALLATION GUIDE



Light My Bricks



LEGO OPTIMUS PRIME 10302 INSTALLATION GUIDE

Hi There!

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

Optimus Prime 10302 Light Kit.

This PDF details the instructions for the LED light kit only. If you are wishing to purchase this product, please <u>click here</u> 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:



- 4 x Orange 30cm Bit Light
- 4 x Cool White 30cm Bit Light
- 8 x Yellow 15cm Bit Light *
- 1 x Blue 30cm Bit Light
- 2 x Red 30cm Bit Light
- 1x Blue 30cm Large Bit Light
- 1x Cool White 30cm Large Bit Light
- 1 x Warm White Light String



7 x 2-Port Expansion Board



- 1 x Flicker Effects Board
- 1 x Gun Effects Board
- 2 x Wireless Power Connectors



REBER

- 2 x 5cm Connecting Cables
- 7 x 15cm Connecting Cables
- 1 x 50cm Connecting Cables



1x USB Power Cable (Power Source not Included)

ASSORTED BRICKS:



- 2 x 1x1 Round Plate Trans Dark Blue
- 4 x 1x1 Round Plate Open Stud Trans Orange
- 8 x 1x1 Round Plate Trans Orange
- 4 x 1x2 Plate Red
- 2 x 1x2 Plate Trans Red
- 3 x 1x2 Plate Trans Clear
- 1 x 2x2 Plate W Rounded Bottom Trans Clear
- 1 x 1x1 Round Plate Open Stud Black
- 1 x 1x1 Bracket Light Grey
- 1 x 1x2 Plate Black
- 1 x 2x2 Plate Dark Grey

^{*} Indicates components which include spares

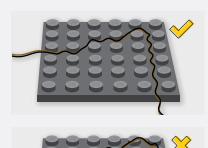


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Before You Begin



Laying cables in between and underneath bricks

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

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





Connecting Cable Connectors To Expansion Boards

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

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



Before You Begin



Connecting Cable Connectors To Strip Lights

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



Connecting Micro Cable Connectors To Micro Expansion Board Ports

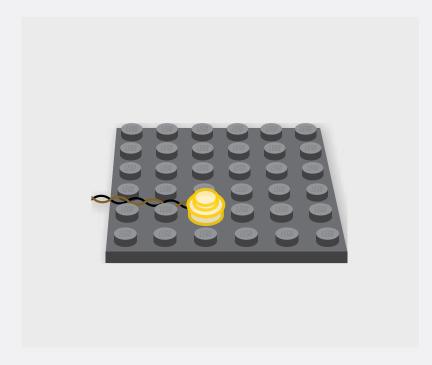
Take extra care when inserting the micro connectors to micro ports of Micro Expansion Boards. Connecting Micro Bit Lights to Micro Expansion Boards is similar to connecting lights and cables to Strip Lights. With the expansion board facing up, ensure the side of the connector with the wires exposed is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



Before You Begin

Installing Bit Lights Under Lego® Bricks And Plates

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

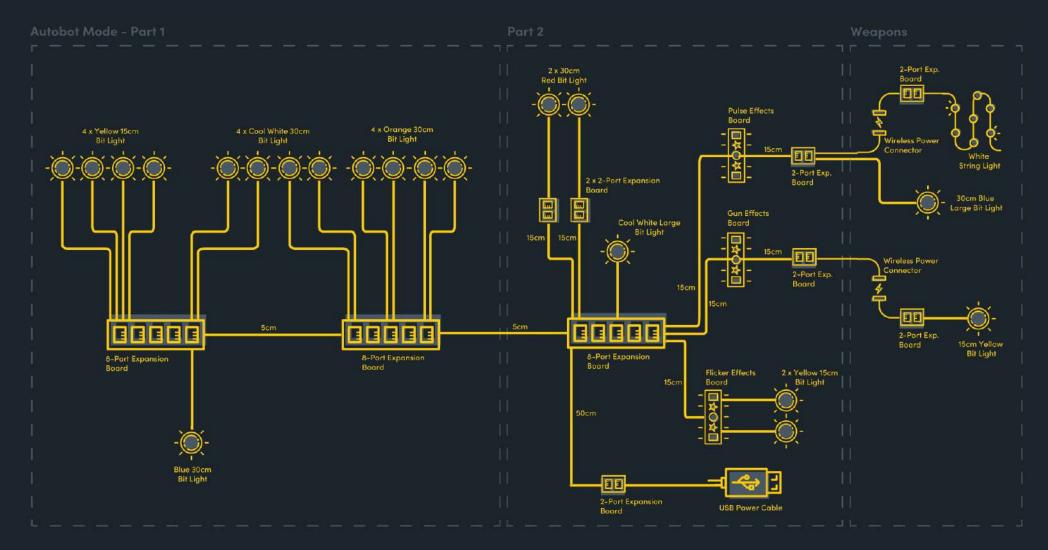








BLUEPRINT



INSTRUCTIONS



BLUEPRINT

2 x 30cm Red Bit Light 4 x Orange 30cm Bit Light 4 x Yellow 15cm 4 x Cool White 30cm Bit Light Bit Light 2 x 2–Port Expansion Board 100 EEEEE BEBEE EFFE 8-Port Expansion 8-Port Expansion 8-Port Expansion 50cm 2-Port Expansion **USB Power Cable**





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.

Instructions for Autobot Mode: Page 11-50

Instructions for Truck Mode: Page 51-63







AUTOBOT MODE INSTRUCTIONS

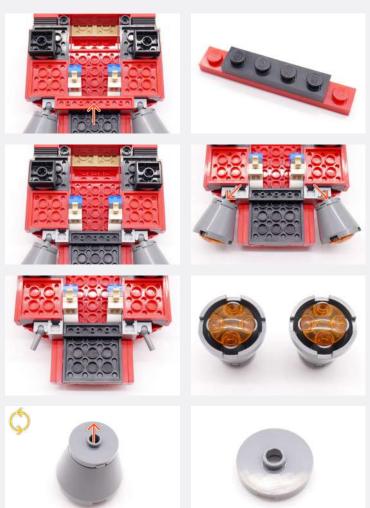
Light Kit Guide for instailation into Autobot Mode.

If you intend to display your Optimus Prime 10302 in Autobot form, follow the instructions bellow.





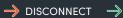








Legend











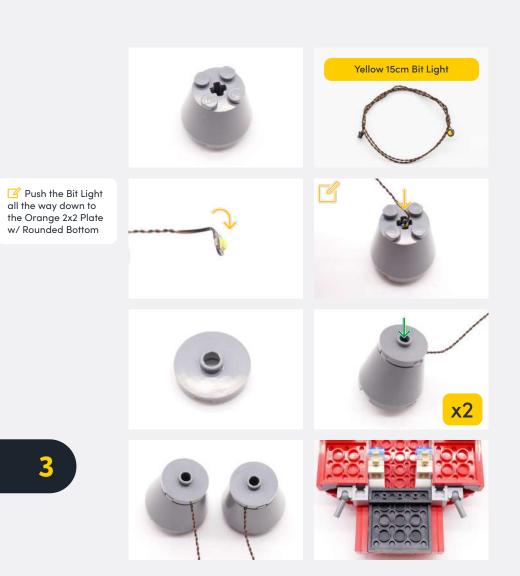


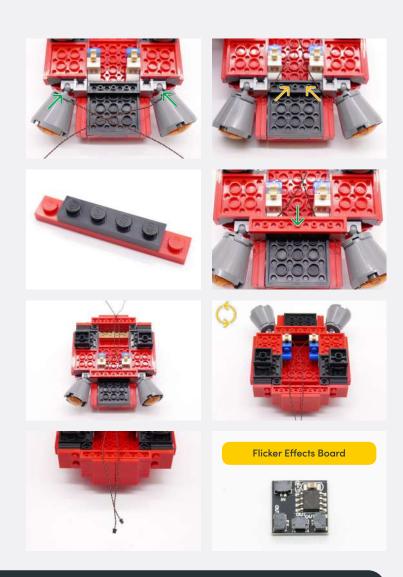


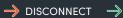


























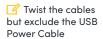
Connect the two Bit Lights to the 'OUT' port of the Flicker Effects Board



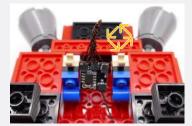




Connect the USB Power Cable to the 'IN' Port of the Flicker Effects Board







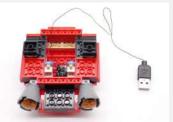




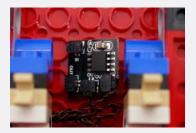
















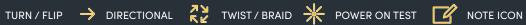


Legend

→ DISCONNECT →

CONNECT / RECONNECT















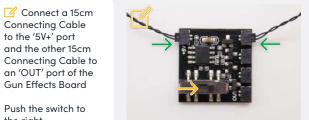














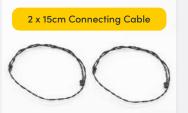
Connect a 15cm Connecting Cable to the 'IN' port and the other 15cm Connecting Cable to an 'OUT' port of the Pulse Effects Board

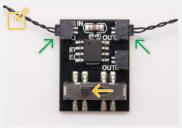
Push the switch to the left

Ensure the cables connected to the 'IN' port are going towards the left side of the jetpack

Ensure the cables connected to the 'OUT' port are going towards the right side of the jetpack

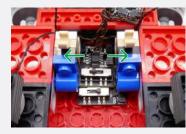














Connect a 15cm

an 'OUT' port of the Gun Effects Board Push the switch to the right

Connecting Cable

to the '5V+' port and the other 15cm

 \rightarrow DISCONNECT \rightarrow

CONNECT / RECONNECT

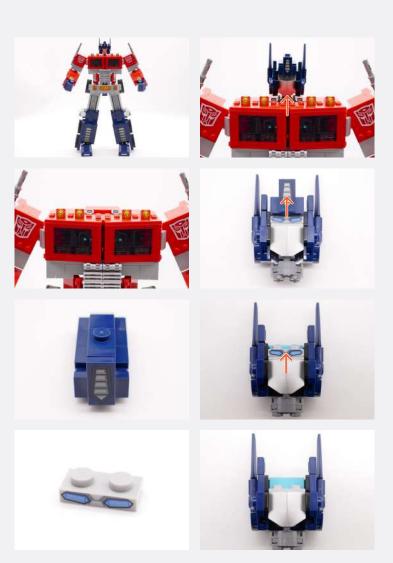
TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 💥 POWER ON TEST 🔟 NOTE ICON

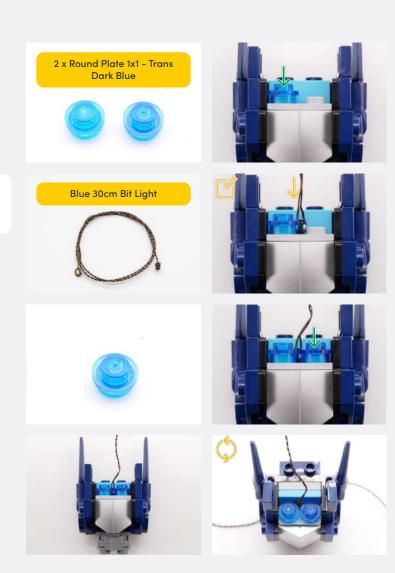






















Make sure Bit Light is possitioned

facing backward







































Legend

ightarrow disconnect ightarrow

CONNECT / RECONNECT



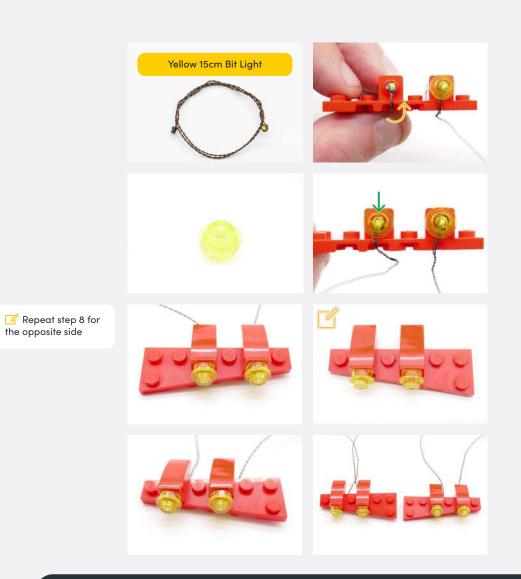




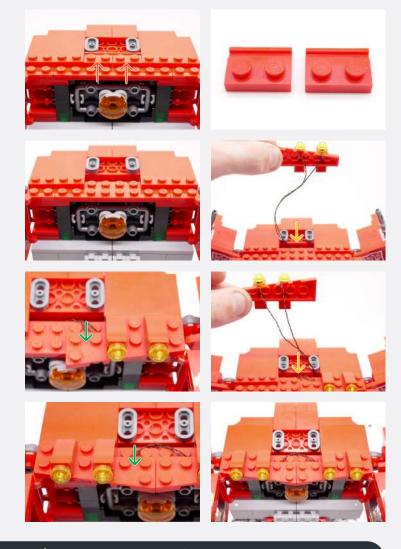


8

















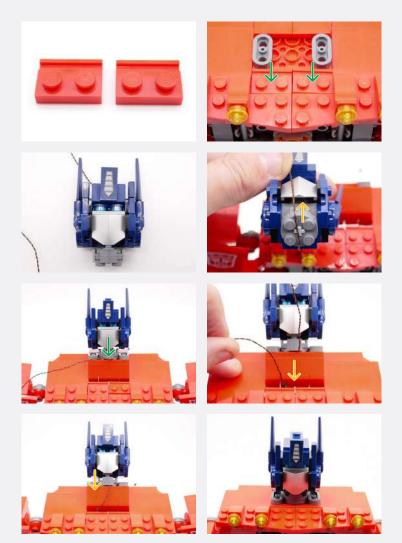










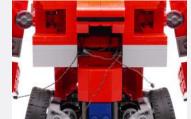




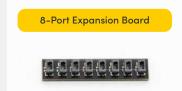














Legend

 \rightarrow DISCONNECT \rightarrow

CONNECT / RECONNECT





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Twist the four Yellow 15cm Bit Lights

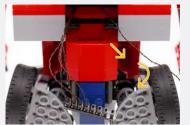
TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON

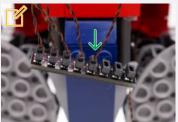






Connect the Blue 30cm Bit Light from the head







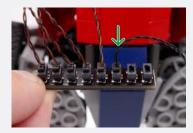


















Connect the other end to a power source







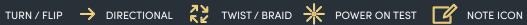


Legend

 \rightarrow DISCONNECT \rightarrow

CONNECT / RECONNECT

















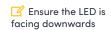


























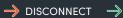






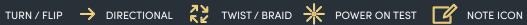


Legend











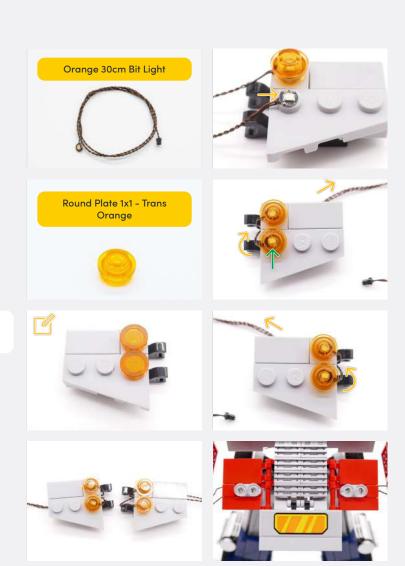
16











Legend





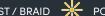


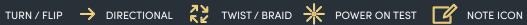




18

Repeat Step 17 for the opposite side

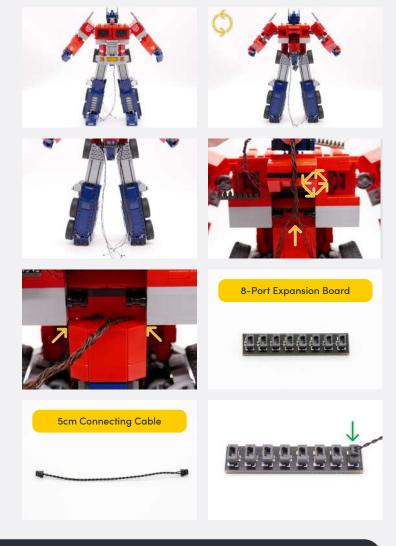








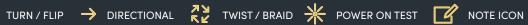




Legend

→ DISCONNECT →

CONNECT / RECONNECT



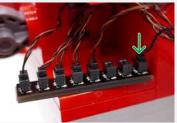












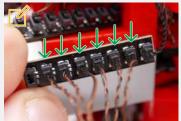








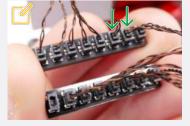




























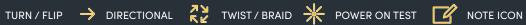


Legend

→ DISCONNECT →

CONNECT / RECONNECT













source

























Optional - Tilting head back will help to hold expansion boards in cavity















Legend

 \rightarrow DISCONNECT \rightarrow

CONNECT/ RECONNECT

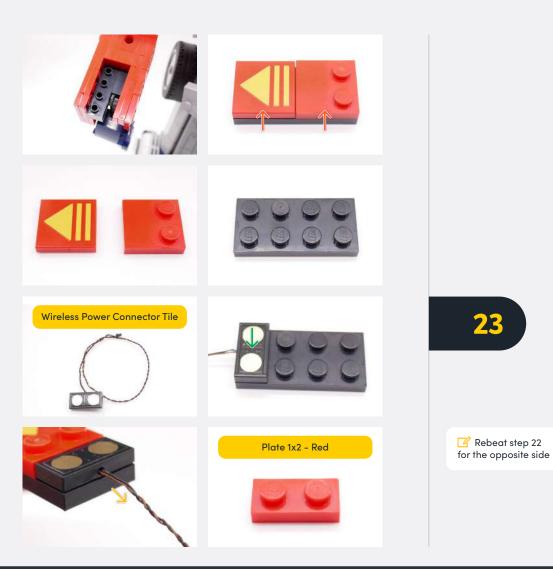


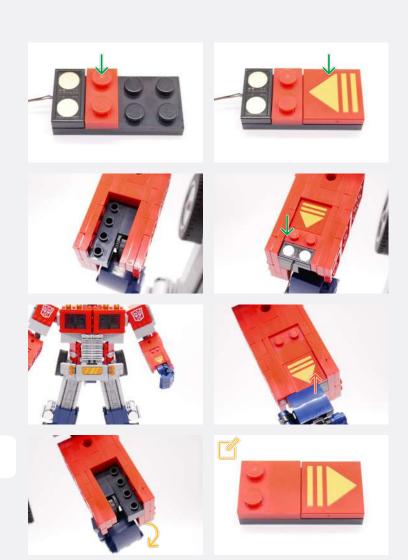












Legend

 \rightarrow DISCONNECT \rightarrow

CONNECT / RECONNECT







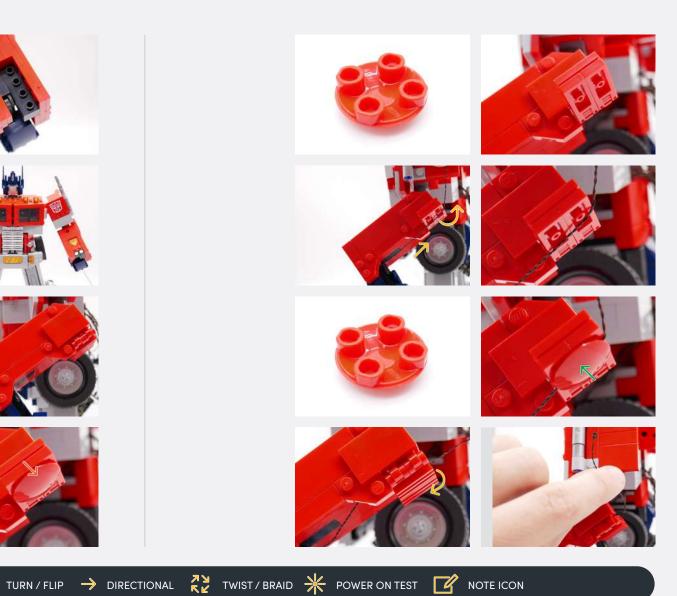






CONNECT / RECONNECT

→ DISCONNECT →



24

Legend





Legend



CONNECT / RECONNECT





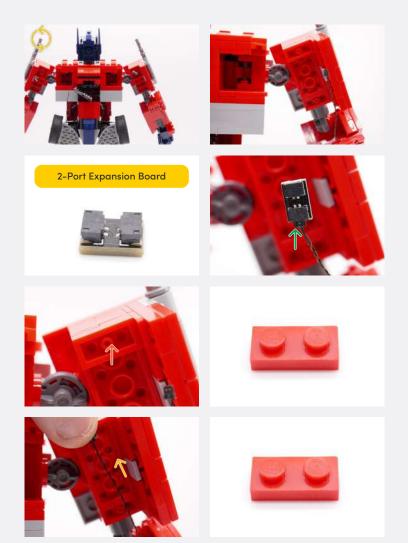


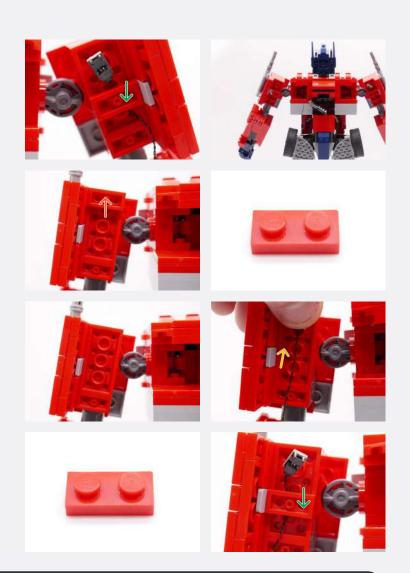




























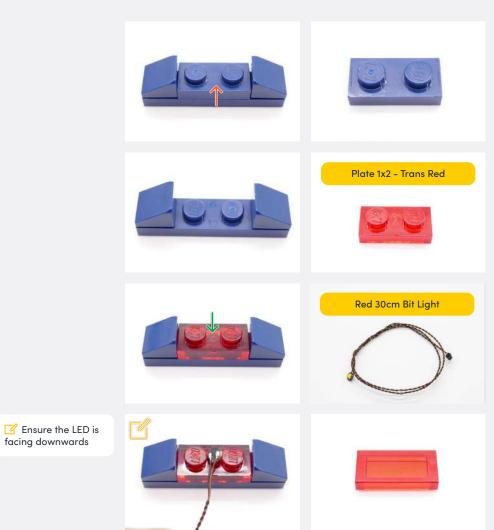




Legend









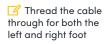


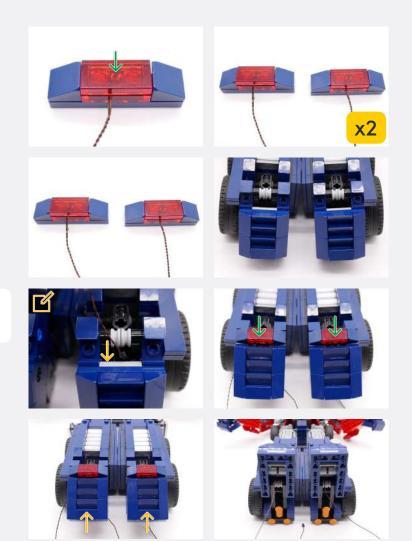


TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON









30



Legend







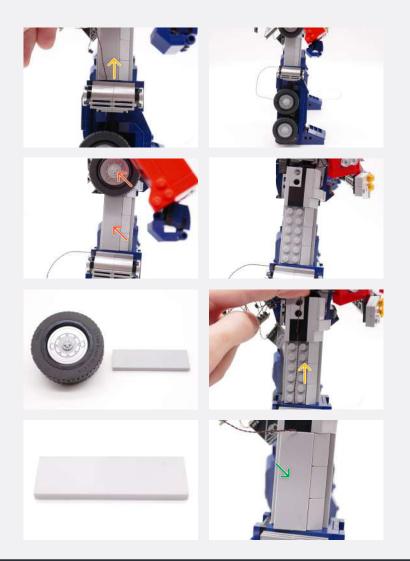


































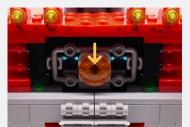
Repeat Step 29 for the opposite side













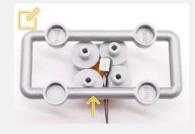




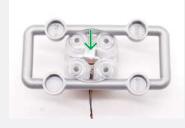




Place theLED facing up while ensuring the cable goes underneath bar











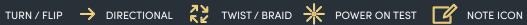


Legend

→ DISCONNECT →

CONNECT / RECONNECT





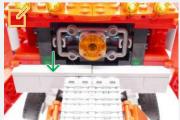






If you have trouble reconnecting the tile, slightly disconnect the brick beneath





















Legend

→ DISCONNECT →

CONNECT / RECONNECT













Bracket 1x1 - Light Grey









Pull Cool White 30cm Large Bit Light from step 32 to the back from the side

















Legend

 \rightarrow DISCONNECT \rightarrow

CONNECT/ RECONNECT



33





INSTRUCTIONS



Connect the Cool White 30cm Large Bit Light to the 8-Port Expansion Board



Connect the 15cm Connecting Cables from both the right and left leg to the 8-Port Expansion Board















Twist the loose cables connect to the **Expansion Board**



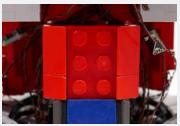














Legend

→ DISCONNECT →

CONNECT / RECONNECT





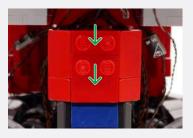
35



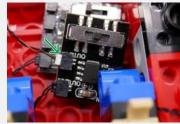




Plate 1x2 - Trans Red















Place the jetpack on Optimus Prime's back so it is easy to connect the cables













Pull the Pulse Effects Board slightly foward



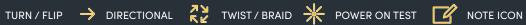




Legend

→ DISCONNECT →













Connect the last two Connecting Cables coming from the 'OUT' port of Effects Boards into the 2-Port Expansion Boards on the arms



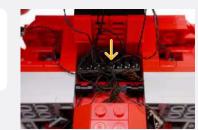










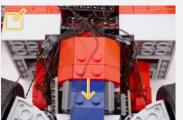




connecting cable is hanging down from the back before clipping on jetpack

Make sure 50cm



















Legend

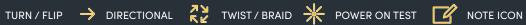
Pushthe cables

and remaining board into the cavity -

ensure no cables are in the way of clips

→ DISCONNECT →





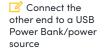


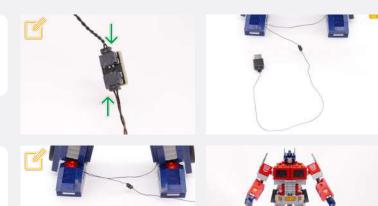






Connect 50cm connecting cable and USB power cable to 2-port expansion board





























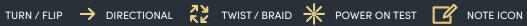














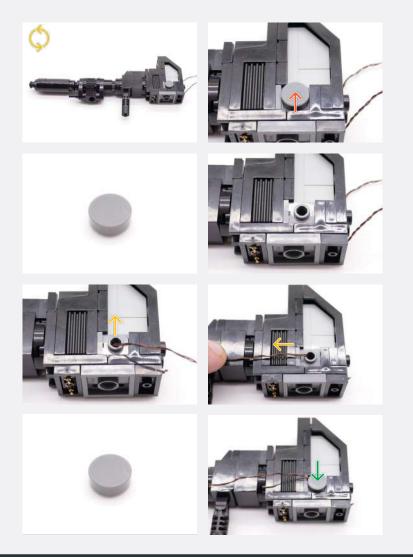


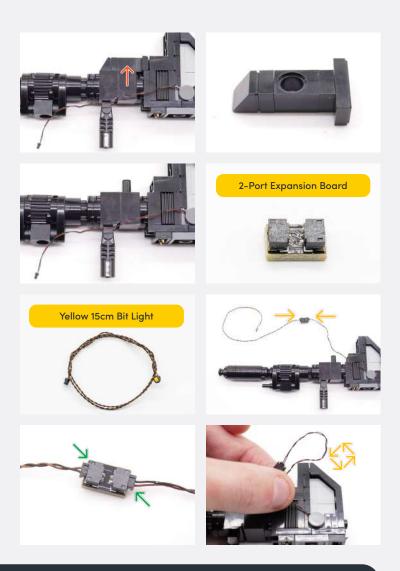


















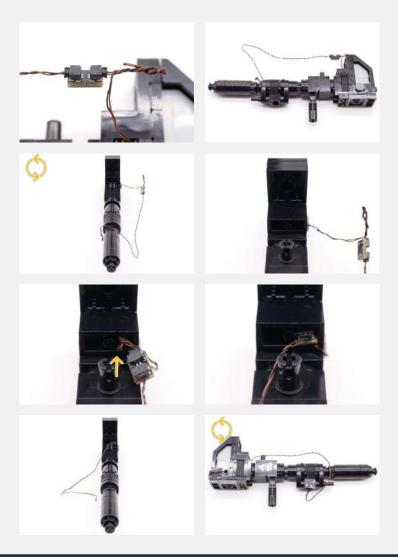






























 \rightarrow DISCONNECT \rightarrow





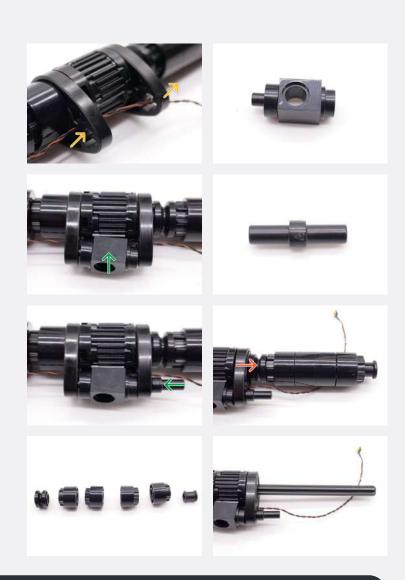












→ DISCONNECT →



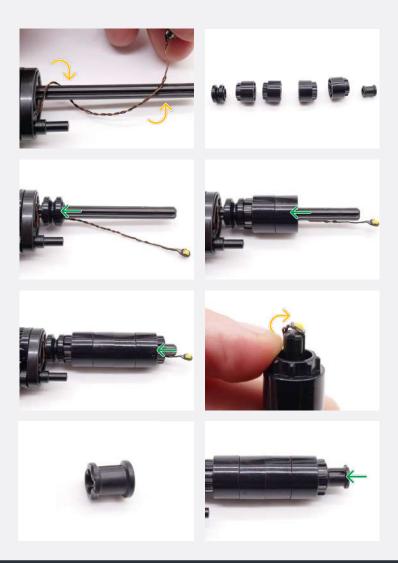














ightarrow disconnect ightarrow



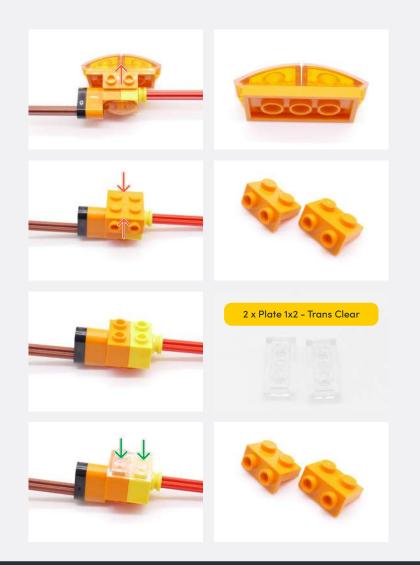














→ DISCONNECT →

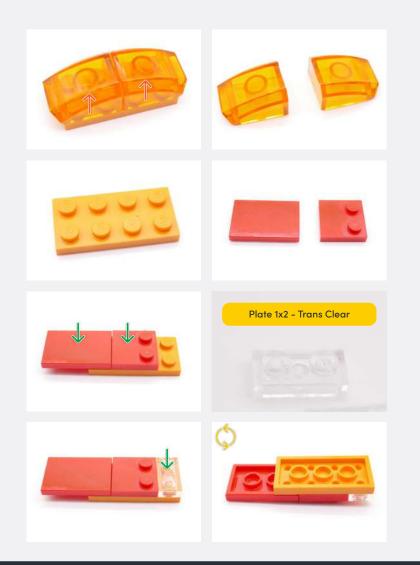


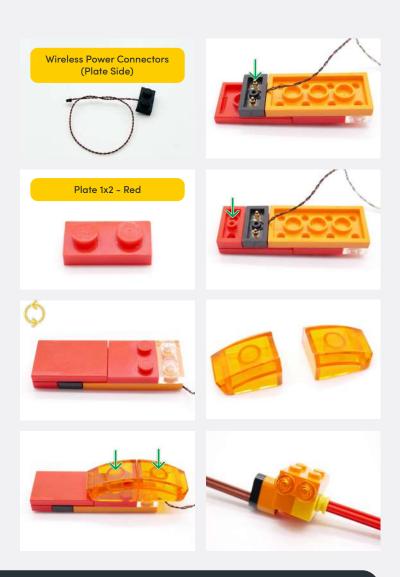






















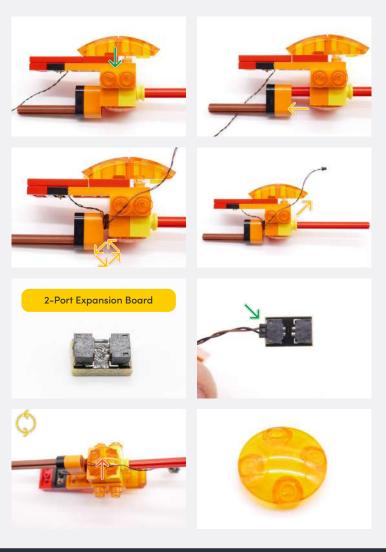




























→ DISCONNECT →



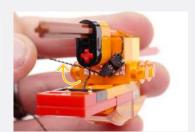








Twist Light String wire (only wire) around Red Technic Axle as shown





Wrap the cable around the Orange Round Plate - 1x1





























→ DISCONNECT →

CONNECT/ RECONNECT







Remove the panel from both

sides







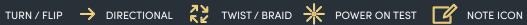




Twist around Trans Orange Studs

once.

→ DISCONNECT →











Reconnect the panel piece on both

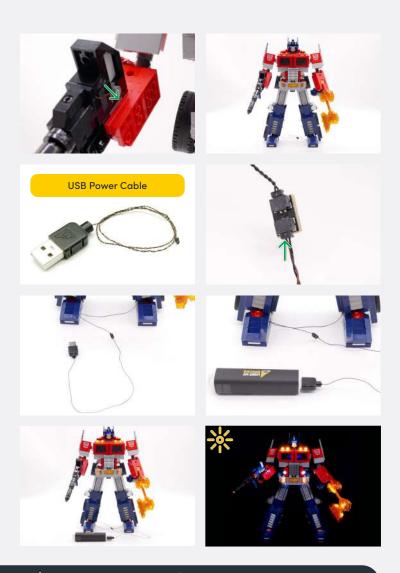


Depending on which way you've wired the arms, you may need to swap the weapons around

The gun should have the Gun Effects

The axe should have the Pulse Effects





















TRUCK MODE INSTRUCTIONS

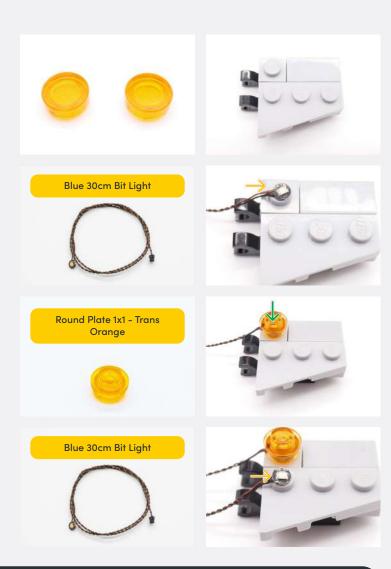
Light Kit Guide for instailation into Truck Mode.

If you intend to display your Optimus Prime 10302 in Truck form, follow the instructions bellow.













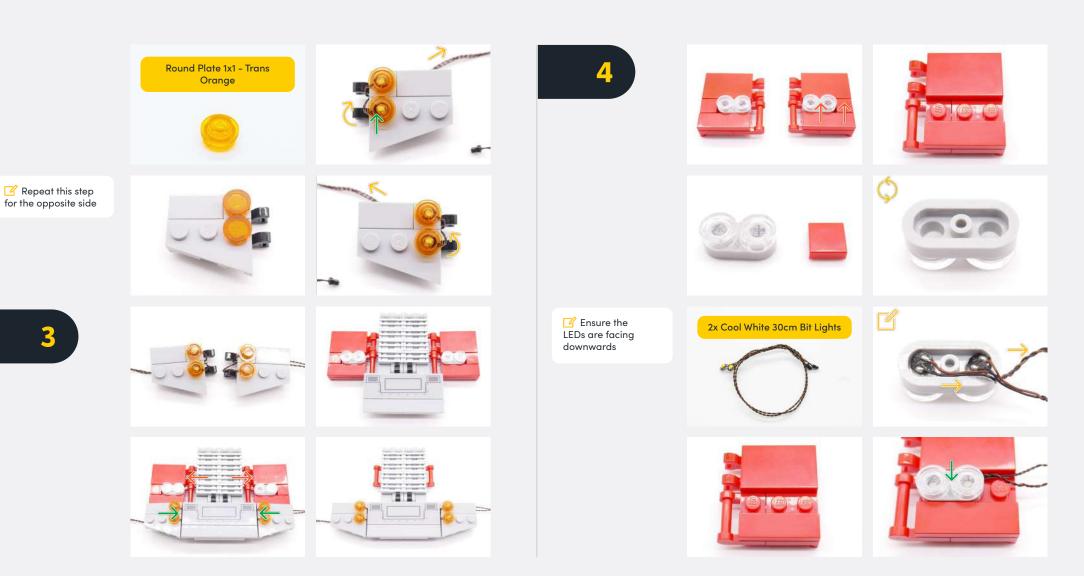












TURN / FLIP -> DIRECTIONAL 🚜 TWIST / BRAID 🔆 POWER ON TEST 🕜 NOTE ICON

Legend

CONNECT /

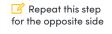
RECONNECT

→ DISCONNECT →















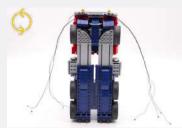










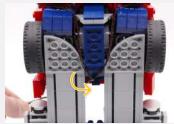












→ DISCONNECT →













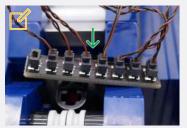






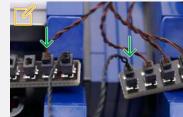
Connect Seven of the Eight Bit Lights to the 8-Port Expansion Board





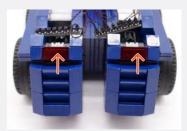


















Legend

6

→ DISCONNECT →



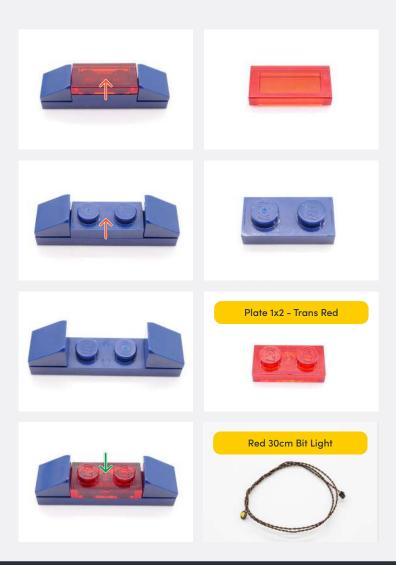


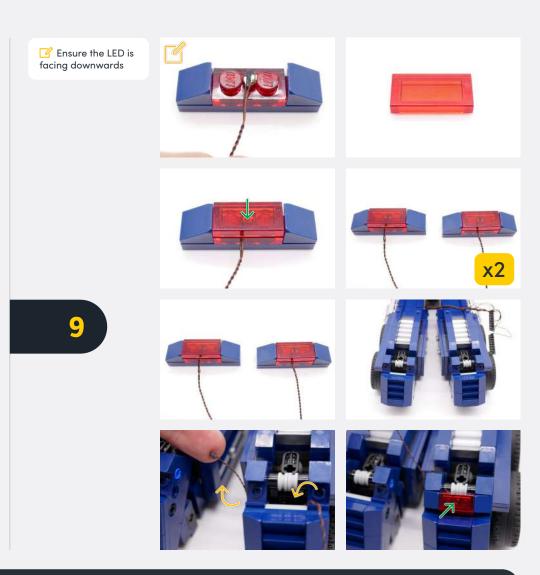


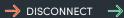






















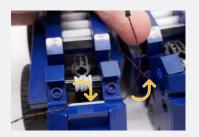


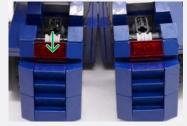








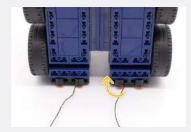






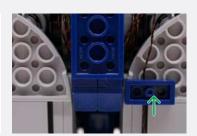


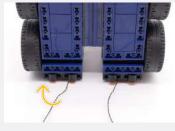


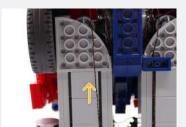




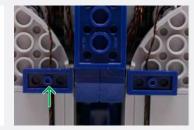


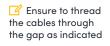


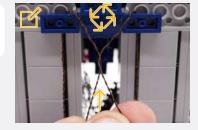














 \rightarrow DISCONNECT \rightarrow

CONNECT / RECONNECT







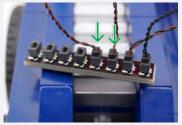


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Legend

→ DISCONNECT →

CONNECT / RECONNECT





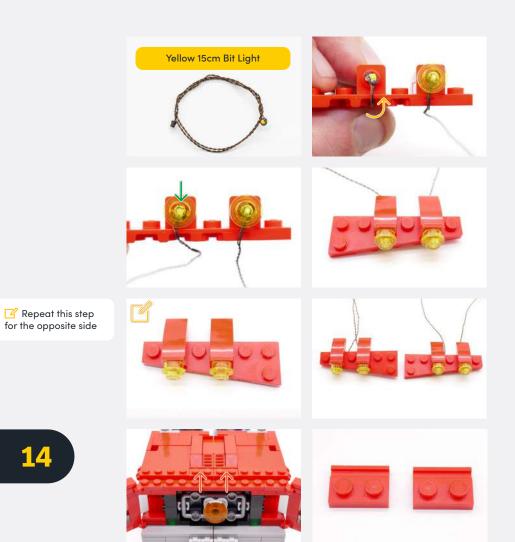






INSTRUCTIONS













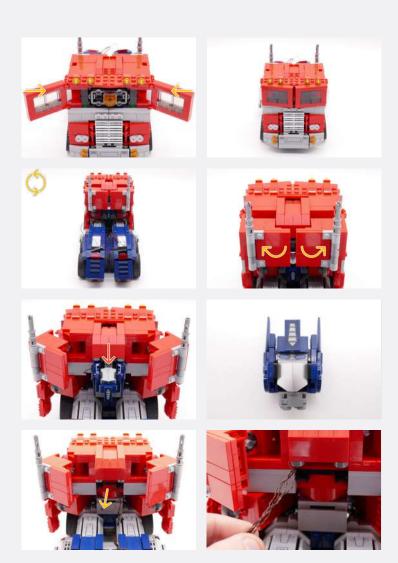


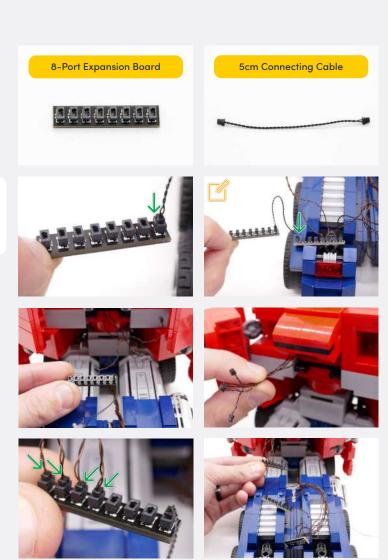












Legend



CONNECT/ RECONNECT







Connect the other end of the 5cm Connecting Cable to the 8-Port Expansion Board from Step 11



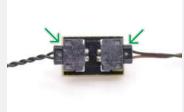








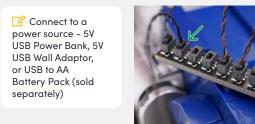






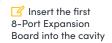








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Legend

→ DISCONNECT →

CONNECT / RECONNECT





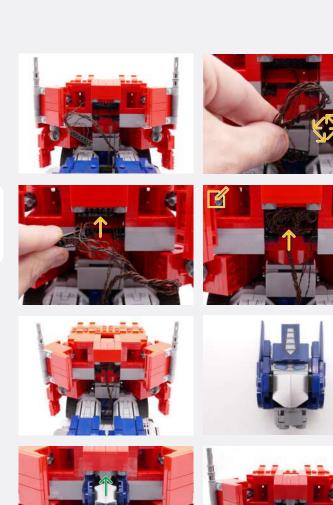


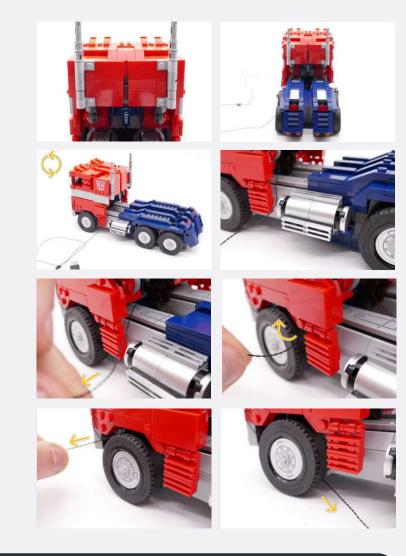
TURN / FLIP -> DIRECTIONAL R TWIST / BRAID R POWER ON TEST NOTE ICON





Insert the final 8-Port Expansion Board into the same cavity, then the twisted wire





Legend

 \rightarrow DISCONNECT \rightarrow

CONNECT/ RECONNECT









INSTRUCTIONS

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Connect to a power source – 5V USB Power Bank, 5V USB Wall Adaptor, or USB to AA Battery Pack (sold separately)











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



FINAL PRODUCT

This finally completes installation of the Light My Bricks LEGO Optimus Prime 10302 21332 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.



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

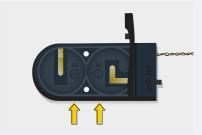
If the batteries have no power, replace the batteries.

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

Check For CR2032 Batteries Using The Flat Battery Pack

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

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







Check For Cr2032 Batteries Using The Round Battery Pack

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





Check for AA batteries using the AA battery pack

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

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







Check Your Wires

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

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

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

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







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

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

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

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





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

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

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











CONTACT US

If you have an enquiry regarding the online shop, our products or a general enquiry please refer to our Frequently Asked Questions webpage 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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