

LIGHT MY BRICKS: LEGO Liebherr R 9800 42100

Lighting Kit



The following page is the instructions for the [Light My Bricks LEGO Liebherr R 9800 \(42100\) LED light kit](#).

If you run into any issues, please refer to the [online troubleshooting guide](#).

To ensure a trouble-free installation of your light kit, please read and follow each step carefully.

Please note: This page lists instructions for the LED light kit only

Package Contents:

- 16x **White 30cm Bit Lights**
- 1x **Red Strip Light**
- 1x **White Strip Light**
- 1x **Rotating White 30cm Bit Light**
- 3x **6-Port Expansion Boards**
- 2x **8-Port Expansion Boards**
- 1x **Multi-Effects Board**
- 2x **5cm Connecting Cables**
- 3x **15cm Connecting Cables**
- 2x **30cm Connecting Cables**
- 2x **Adhesive Squares**
- 1x **AA Battery Pack**

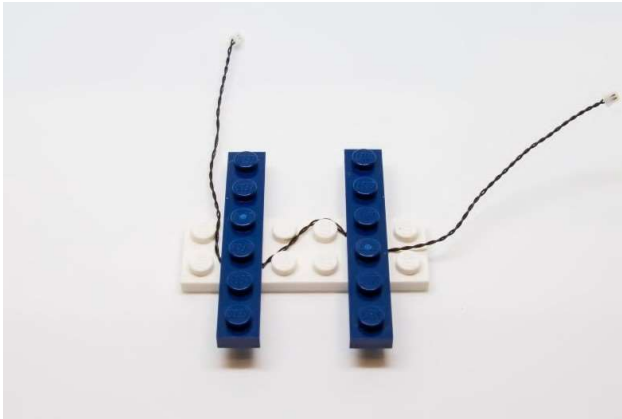
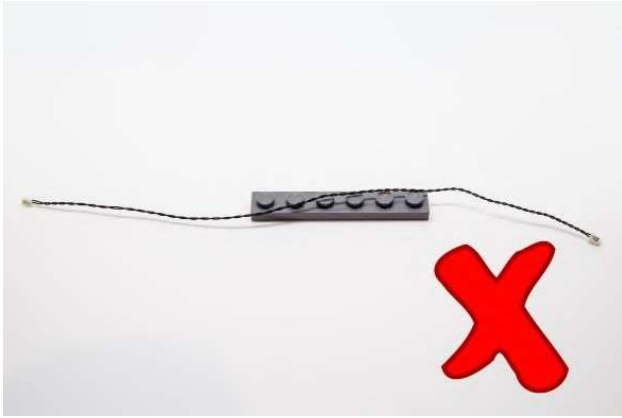
LEGO Pieces:

- 4x **Round Plate 1x1 with Open Stud (Yellow)**
- 6x **Round Plate 1x1 (Trans Clear)**
- 4x **Round Plate 1x1 (Trans Orange)**
- 1x **Cone 1x1 with Top Groove (Trans Orange)**

Important things to note:

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.

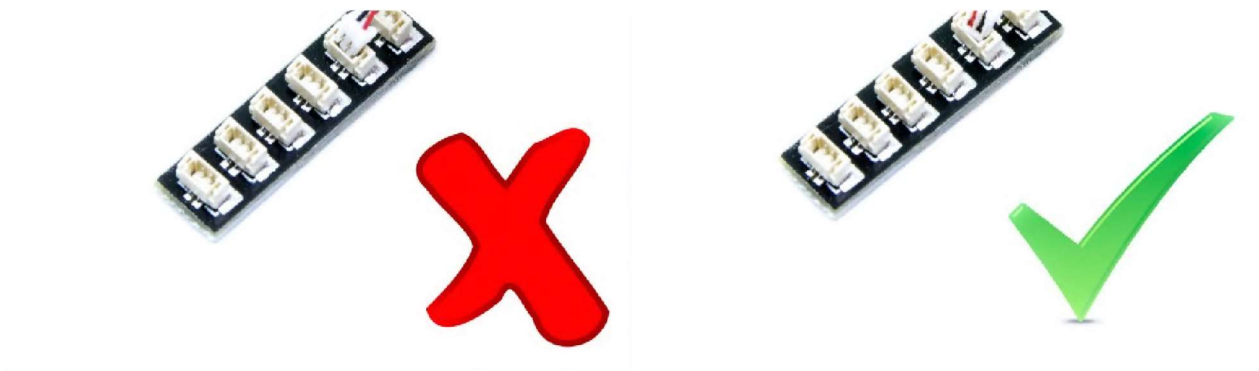


CAUTION: Forcing LEGO® to connect over a cable can result in damaging the cable and light.

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.

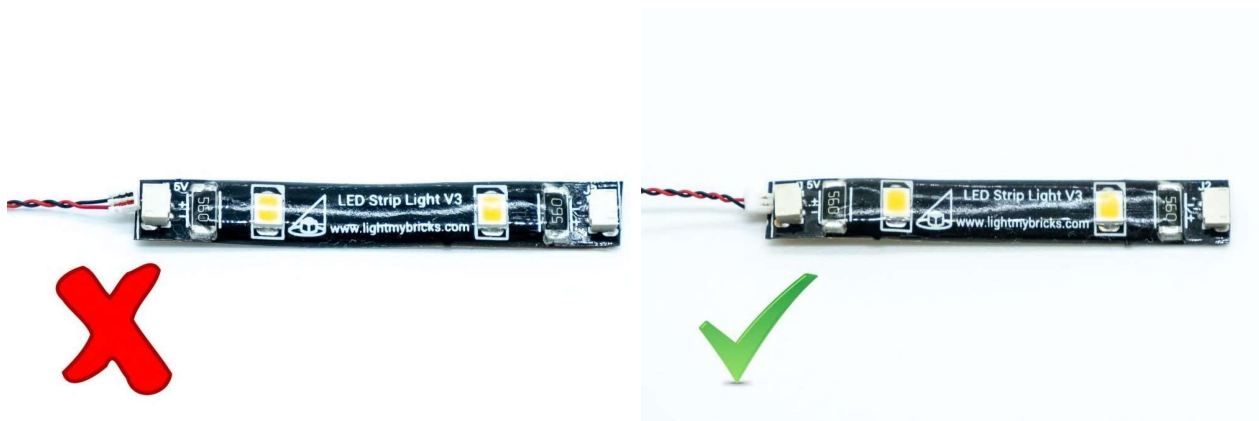




Incorrectly inserting the connector can result in bent pins inside the port or possible overheating of the expansion board when connected.

Connecting cable connectors to Strip Lights

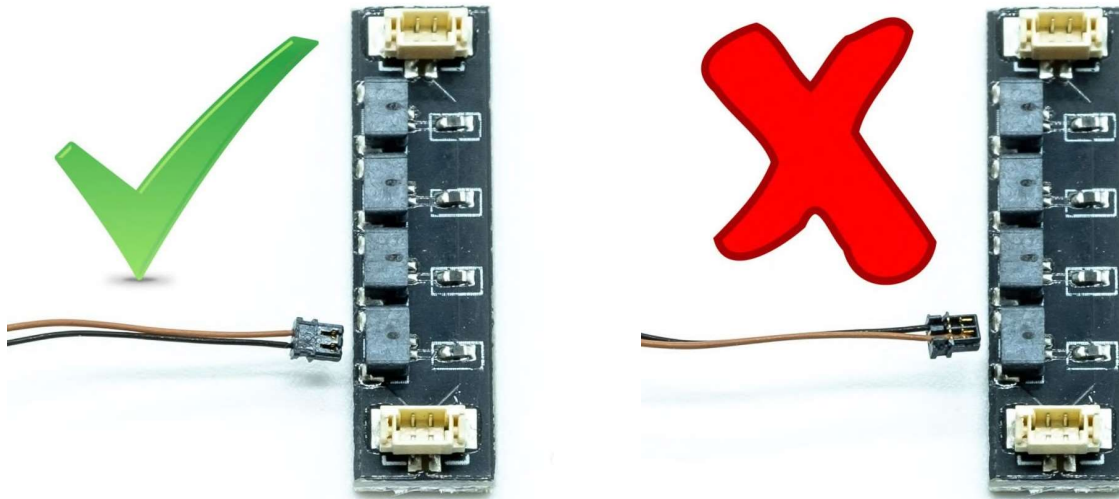
Take extra care when inserting connectors to ports on the Strip Lights. Connectors can be inserted only one way. With the Strip Light facing up, ensure the side of the connector with the wires exposed is facing down. If a plug won't fit easily into a port connector, don't force it. Doing so will damage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



Connecting Micro Cable connectors to Micro Expansion Board Ports

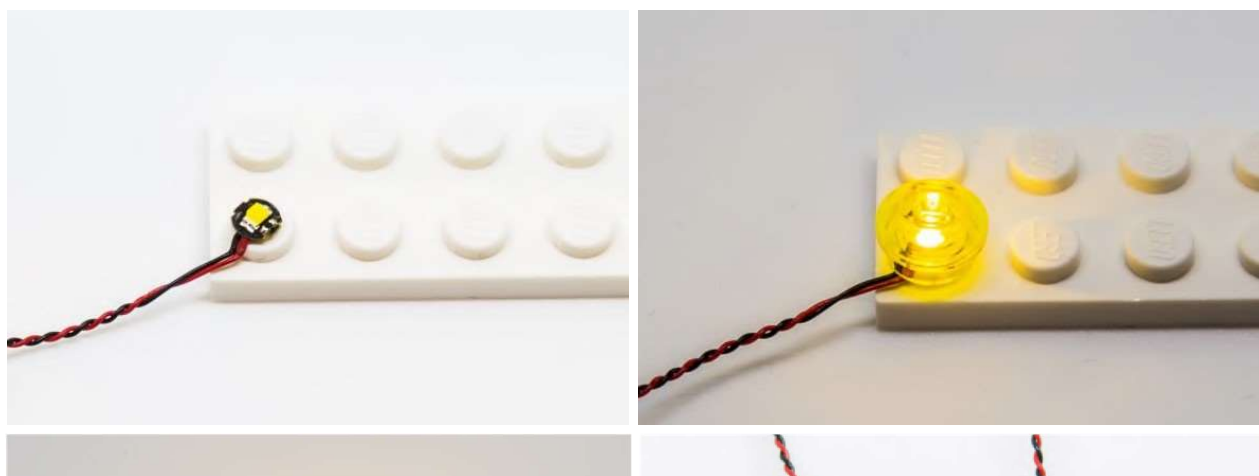
Take extra care when inserting the micro connectors to micro ports of Micro Expansion Boards. Connecting Micro Bit Lights to Micro Expansion Boards is

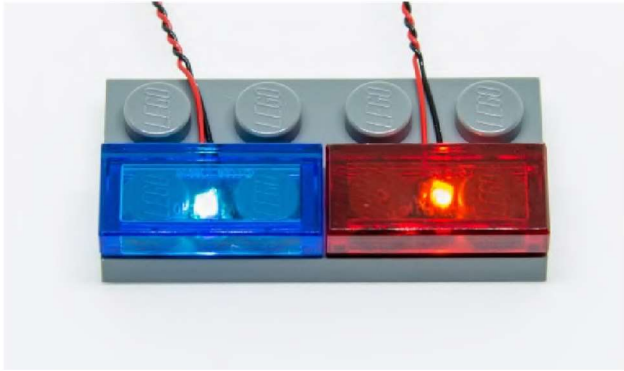
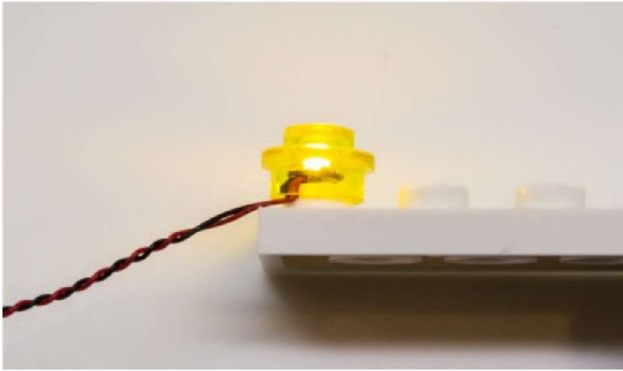
similar to connecting lights and cables to Strip Lights. With the expansion board facing up, ensure the side of the connector with the wires exposed is **facing down**. If a plug won't fit easily into a port connector, do not force it. Use your fingernail to push the plastic part of the connector to the micro port.



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.

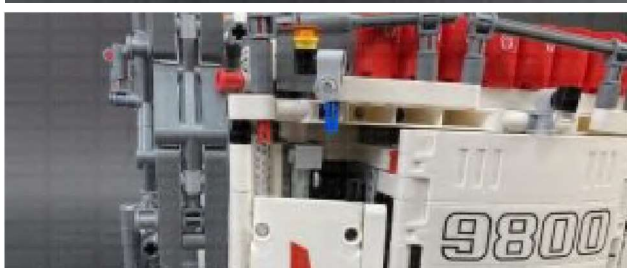
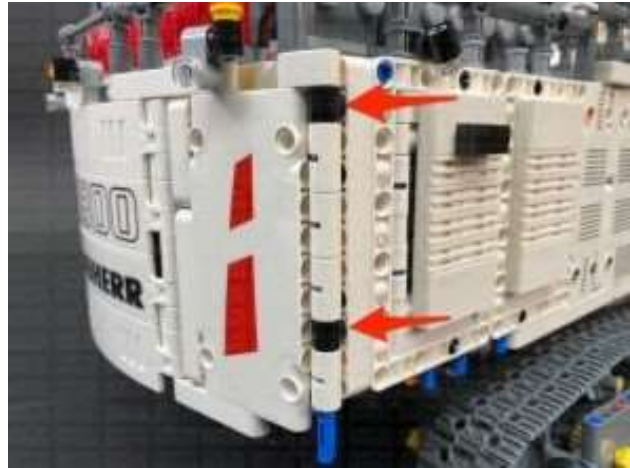
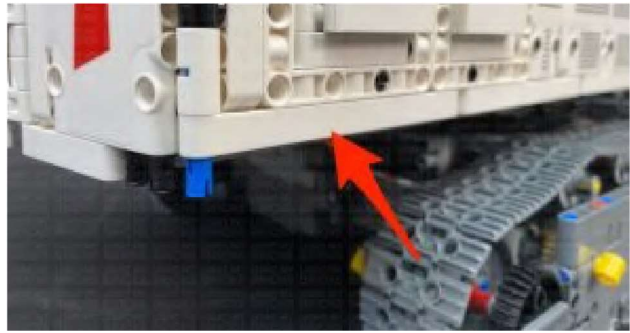
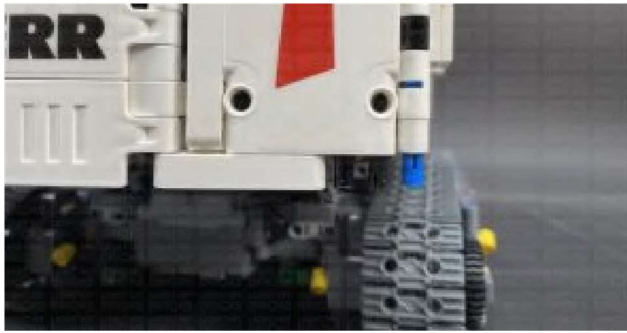


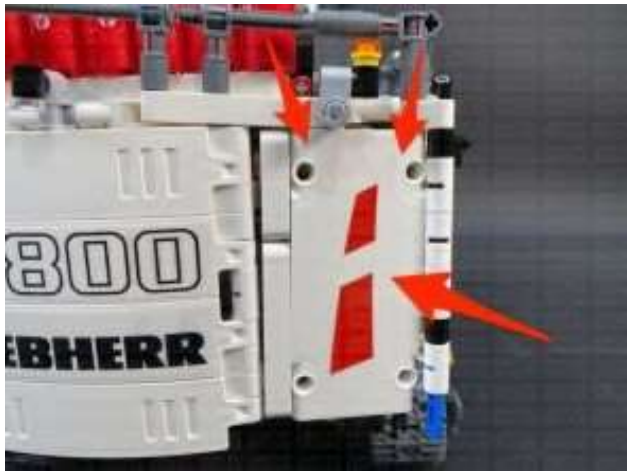
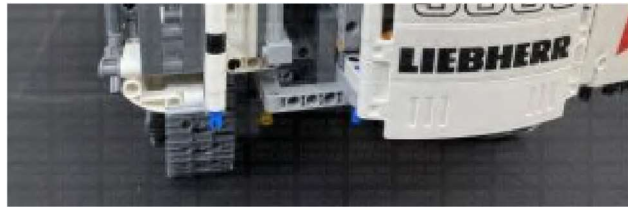
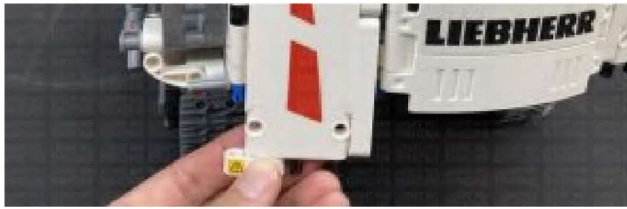


OK, Let's Begin!

1.) Disconnect the following sections from the back of the excavator.



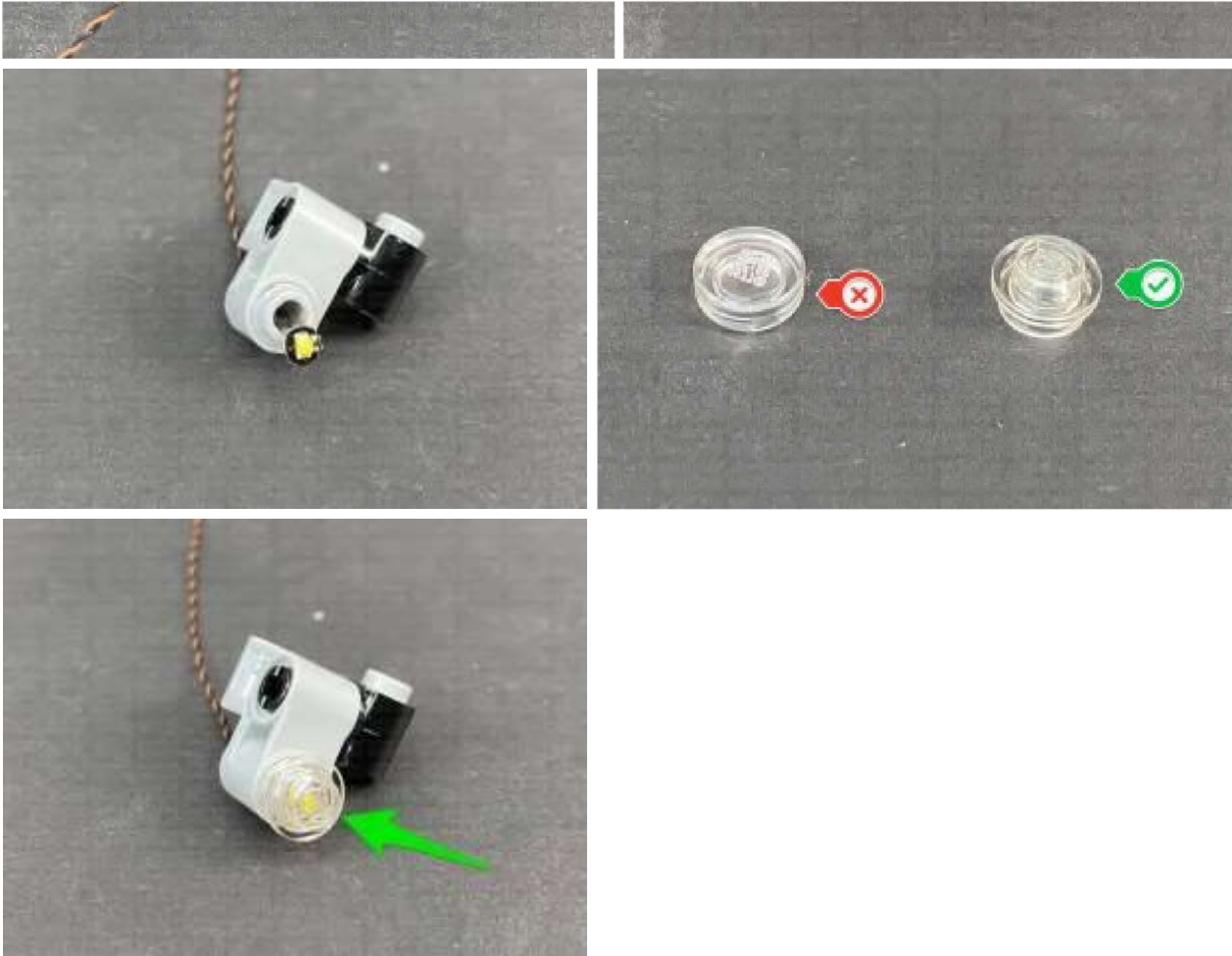






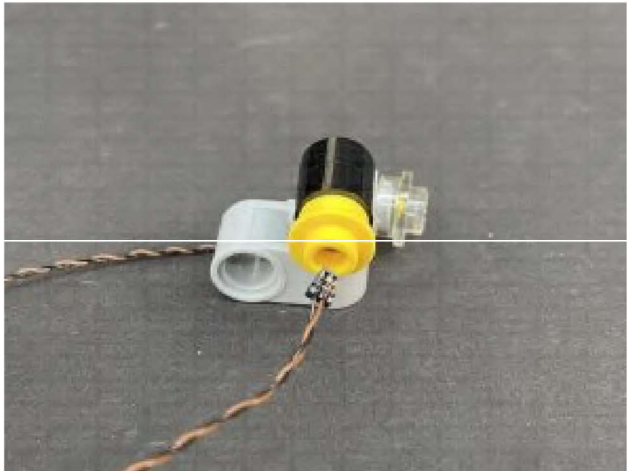
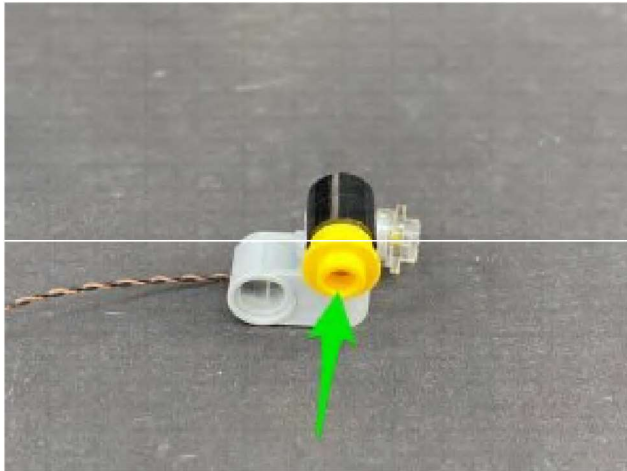
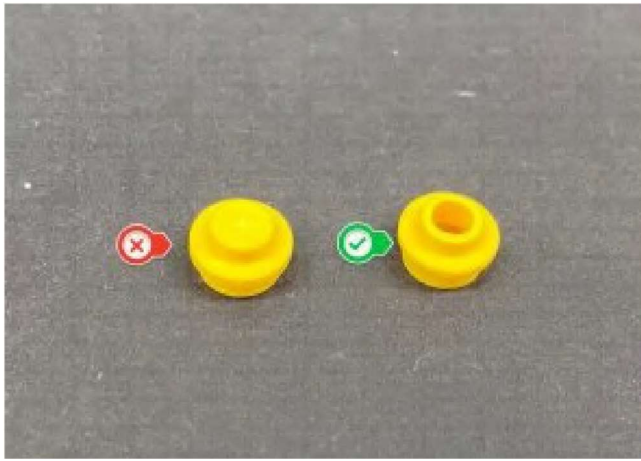
- 2.) Disassemble the following two light sections, then take a **White 30cm Bit Light** and thread the connector end through the technic hole on the front of the right light section. Thread the cable all the way through, then carefully bend the LED flat against the edge of the brick. Secure the light in place by connecting a provided **Round Plate 1x1 (Trans Clear)** over the top.





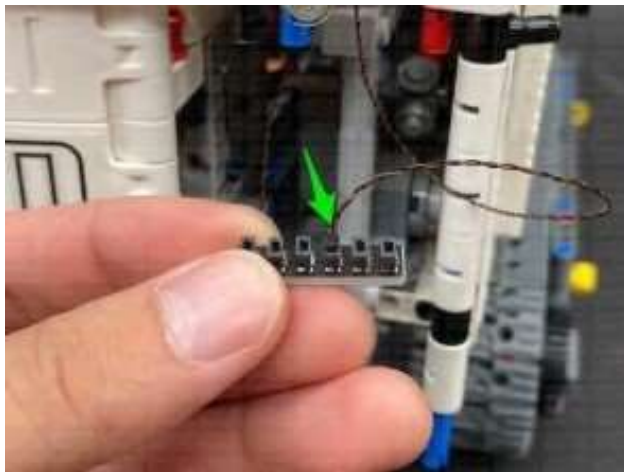
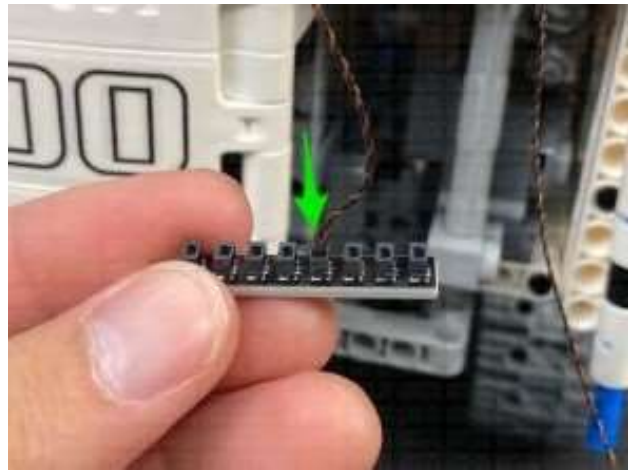
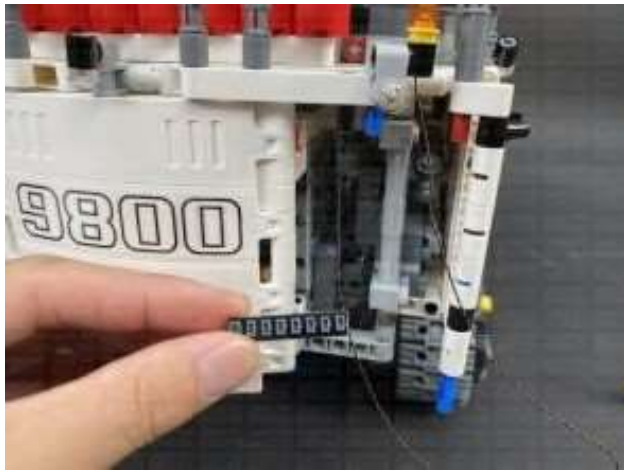
Take a provided **Round Plate 1×1 with Open Stud (Yellow)** and connect it to the technic hole on the top, then install another **White 30cm Bit Light** to this hole.

Secure it in place using a provided **Round Plate 1×1 (Trans Orange)**



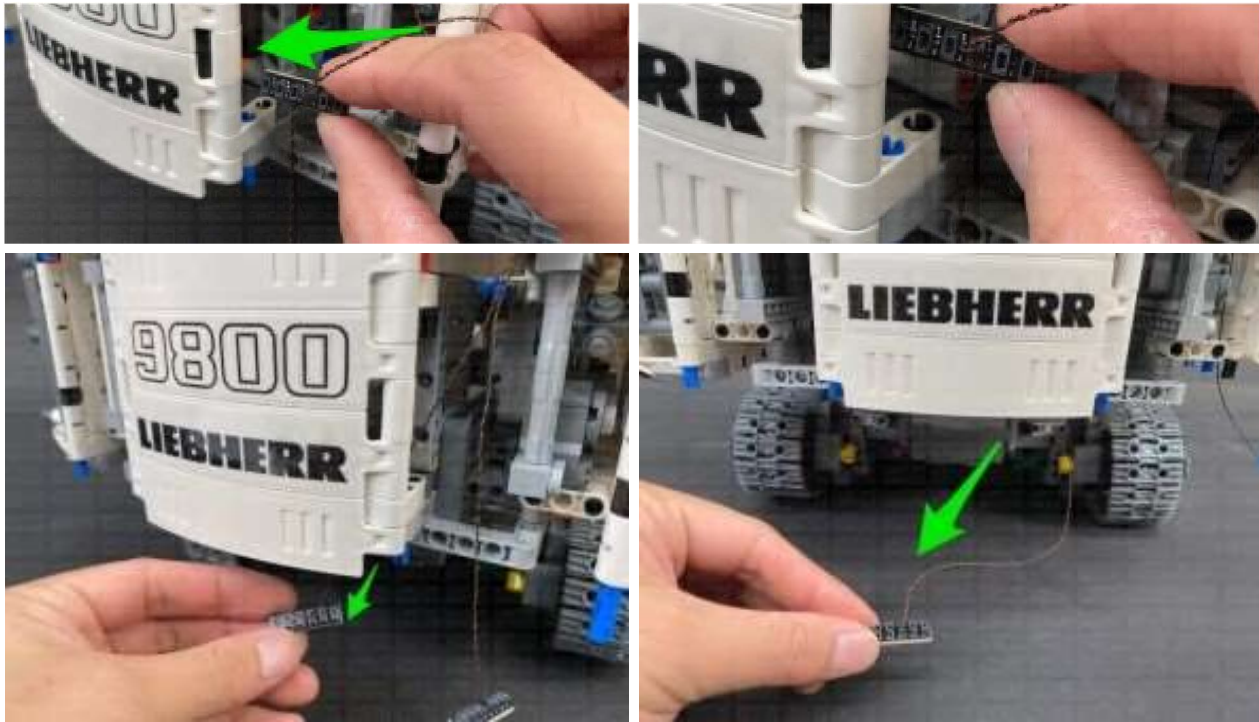
- 3.) Reconnect this section, then connect the Bit Light cable from the trans clearplate to an **8-Port Expansion Board**. Connect the Bit Light cable from the trans orange plate to a **6-Port Expansion Board**.



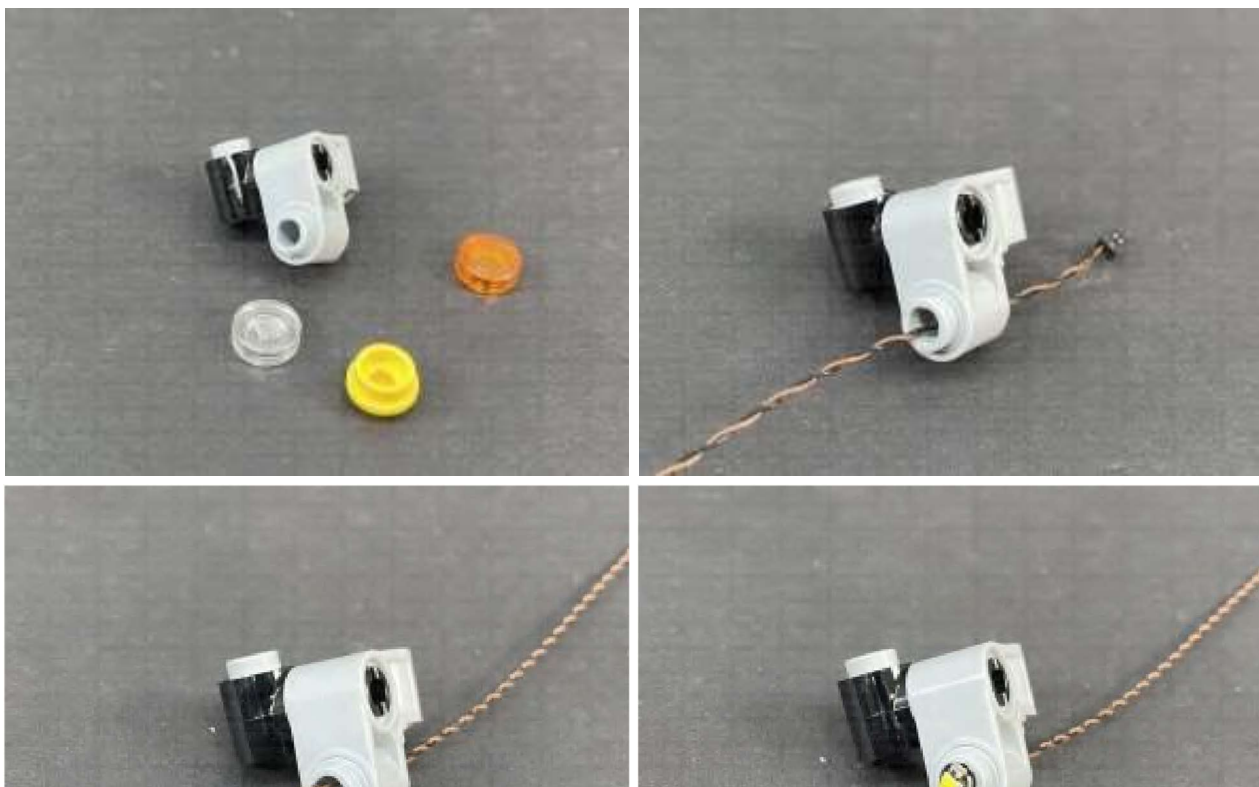


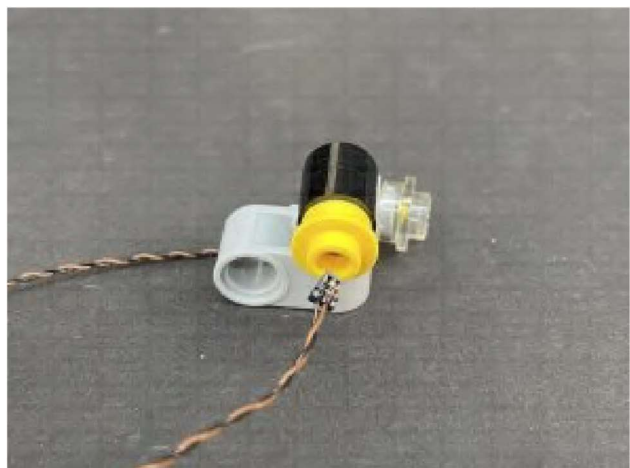
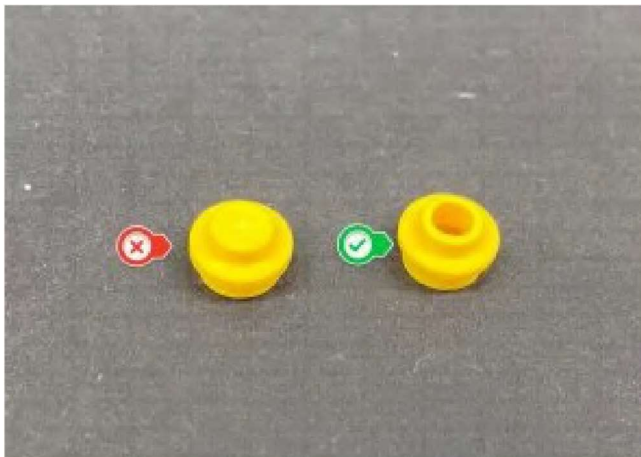
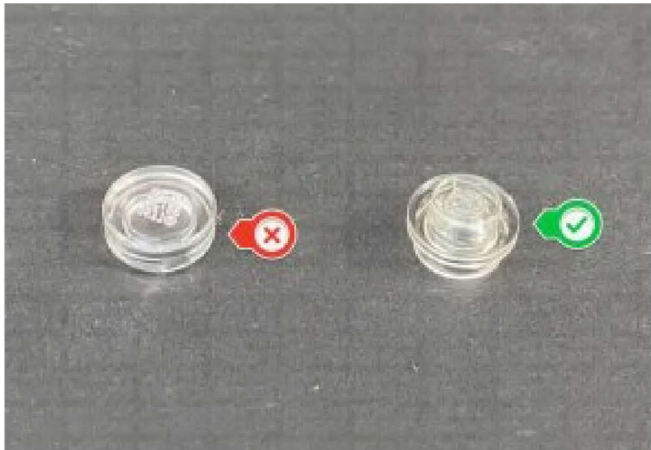
Bring the 6-Port Expansion Board through the middle and pull it out from the bottom.





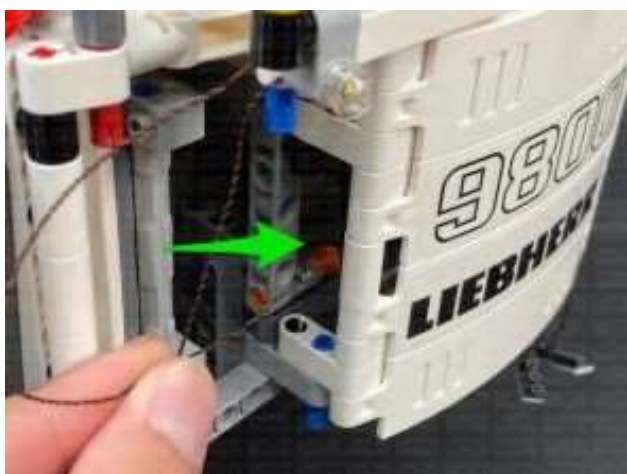
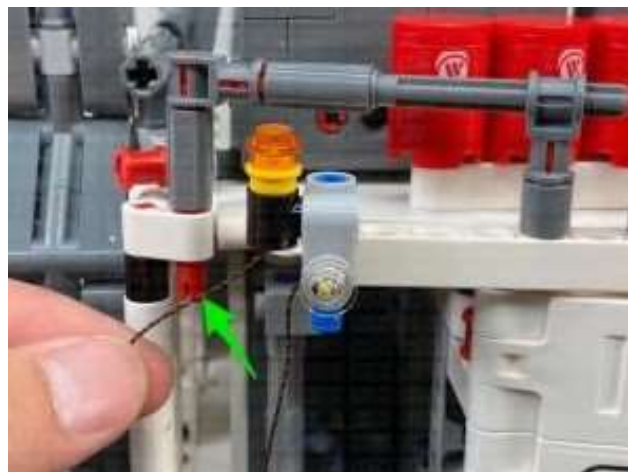
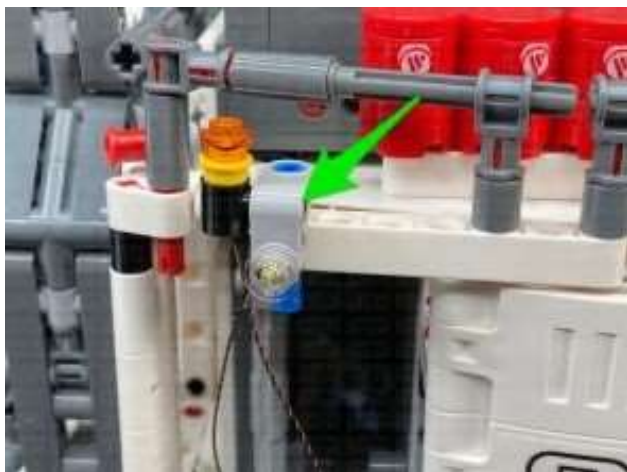
- 4.) Install another **2x White 30cm Bit Lights** to the left light section, using another provided **Round Plate 1×1 (Trans Clear)** for the front light, and a **Round Plate 1×1 with Open Stud (Yellow)** and **Round Plate 1×1 (Trans Orange)** for the top light.

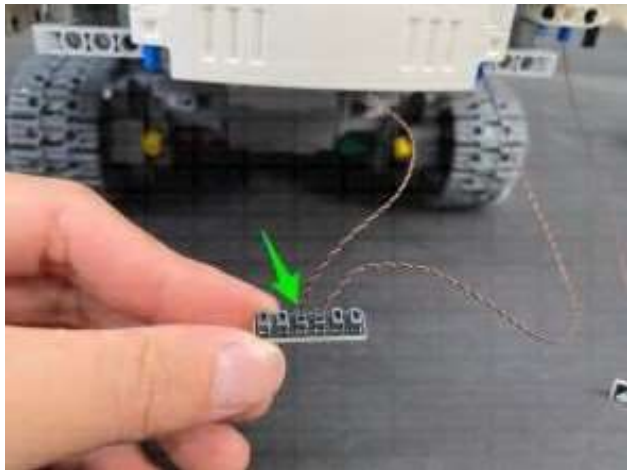
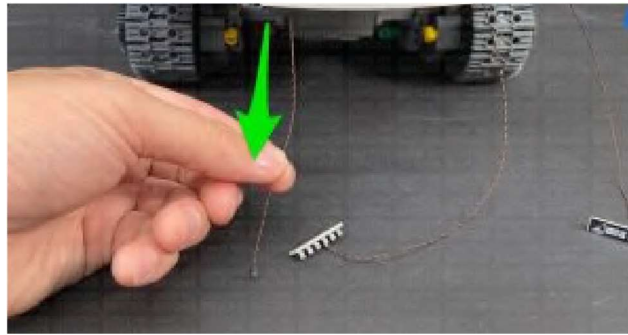
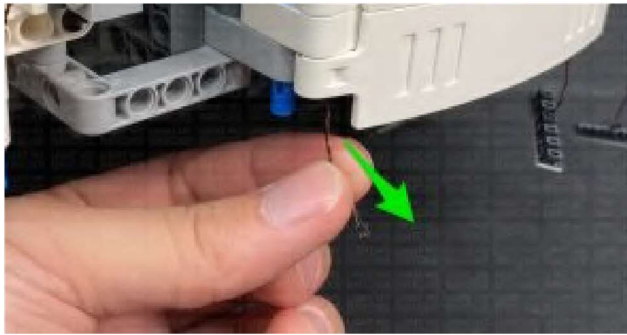




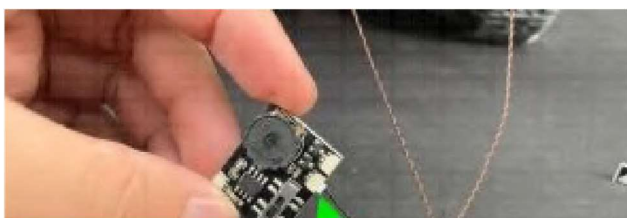
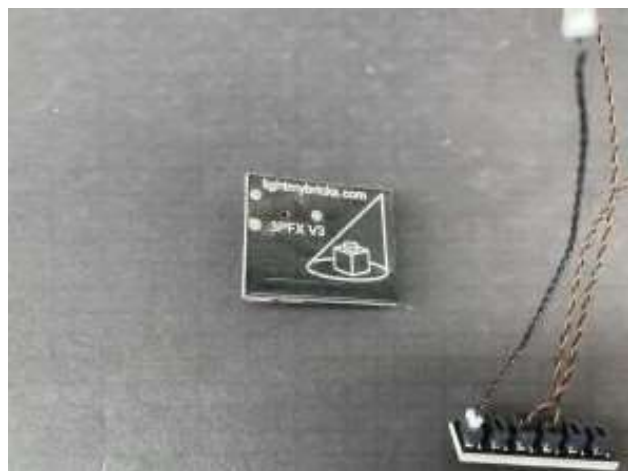
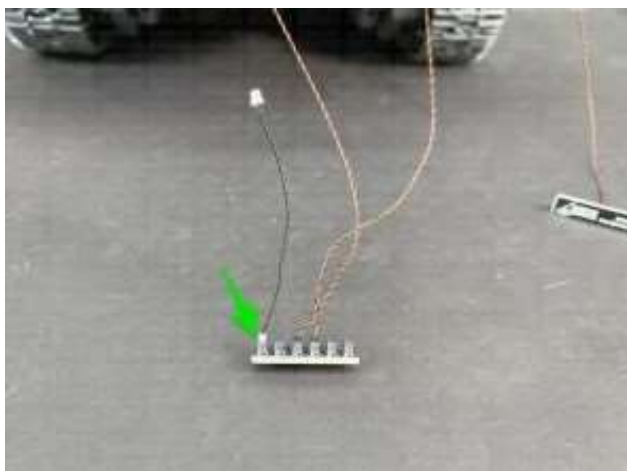


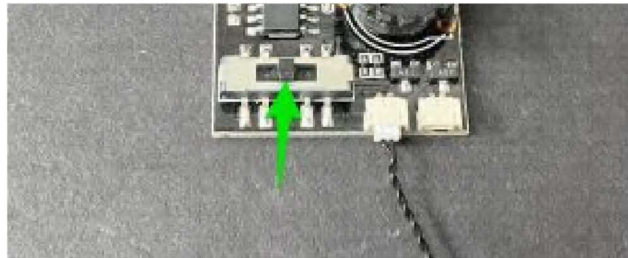
- 5.) Reconnect the light section to the back of the excavator, then bring the cable from the trans orange plate through the middle and pull it out from the bottom. Connect it to the 6-port Expansion Board.





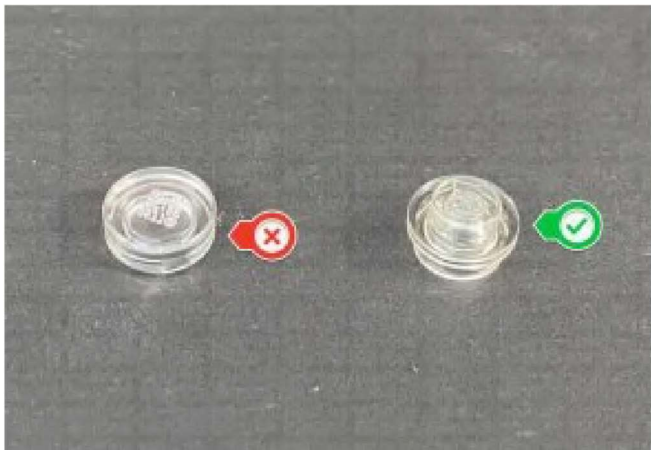
Connect a **5cm Connecting Cable** to the 6-Port Expansion Board, then connect the other end of the cable to one of the **OUT** ports on the **Multi Effects Board 3PFX** (side with 2 ports). Set the effect switch to the middle for the “emergency effect” and turn the speed wheel all the way to the left for the slowest speed. Alternatively, you can configure to your desired speed when we connect the battery pack up later.



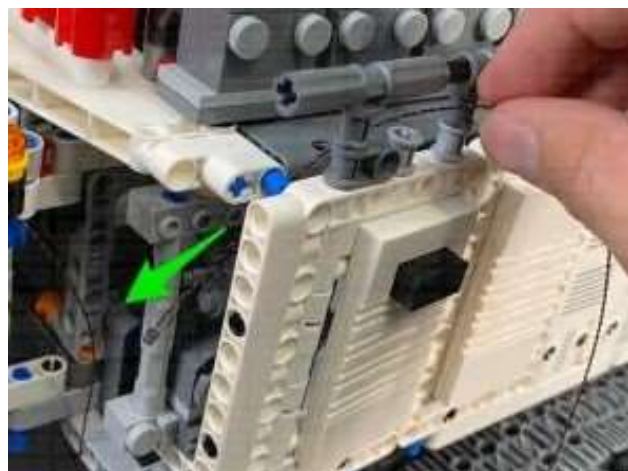


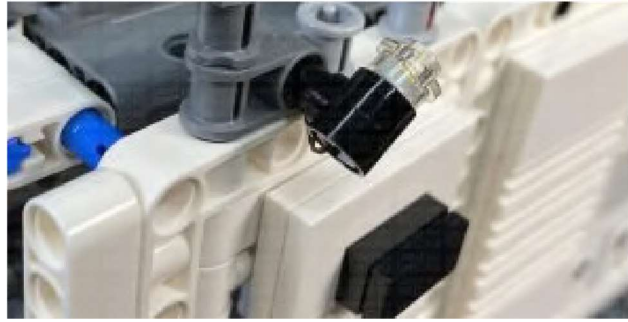
- 6.) Remove the following light section from the rear right side, then partially disconnect the following panel on the right. Disassemble the light section and install a **White 30cm Bit Light** to it. Secure the LED in place using a provided **Round Plate 1x1 (Trans Clear)**.



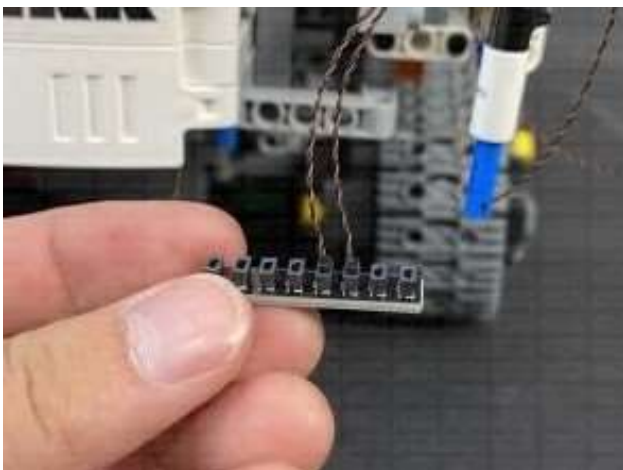
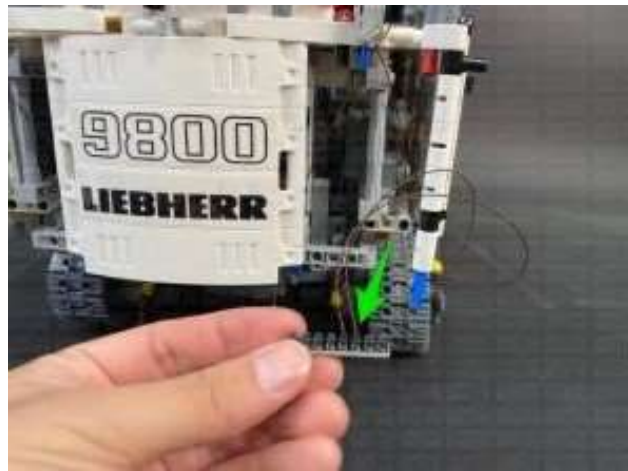
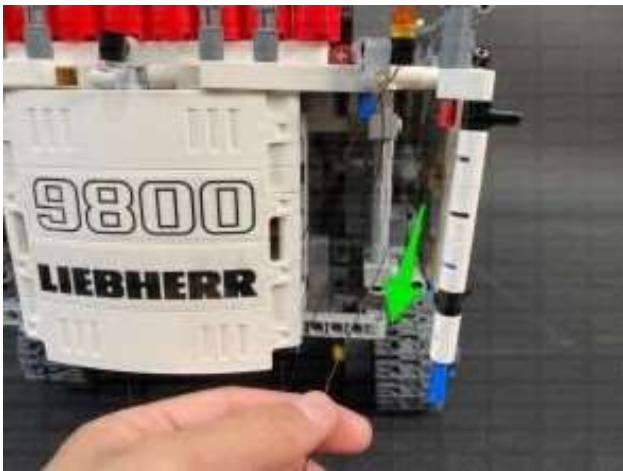


Thread the Bit Light cable through the following space before reconnecting the light section. Ensure the cable is laid underneath as shown below:

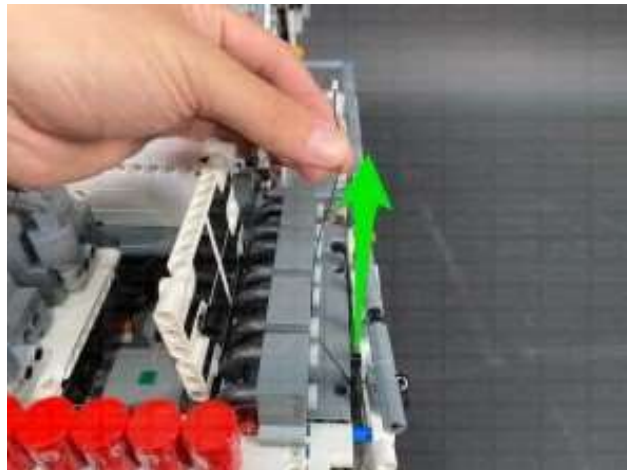
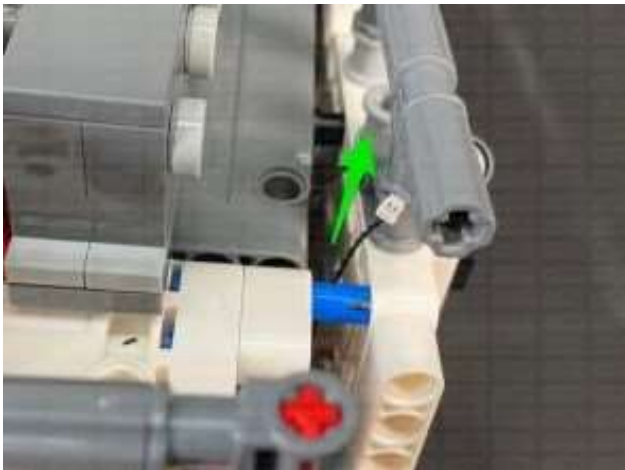
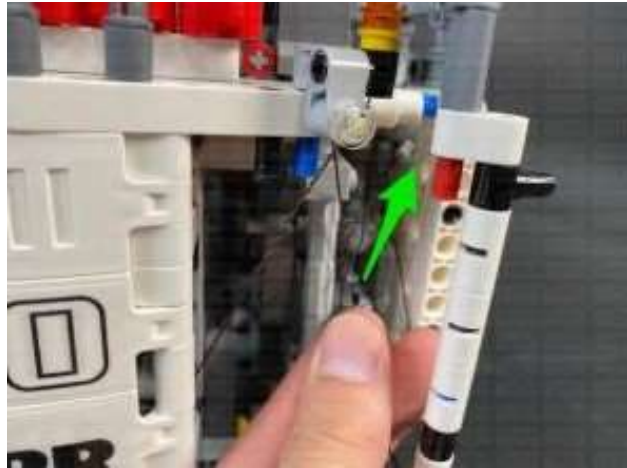
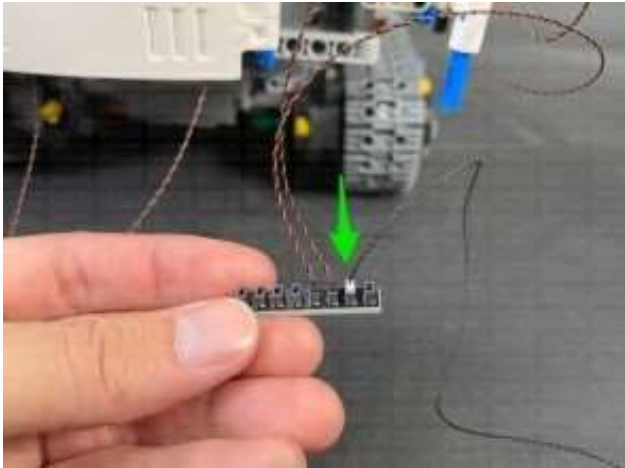


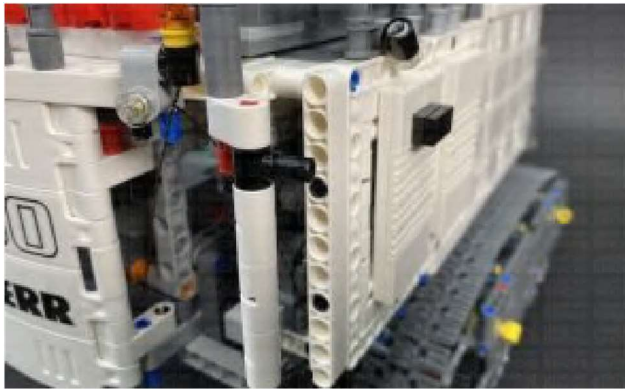


Pull the cable out from the back and connect it to the 8-Port Expansion Board.

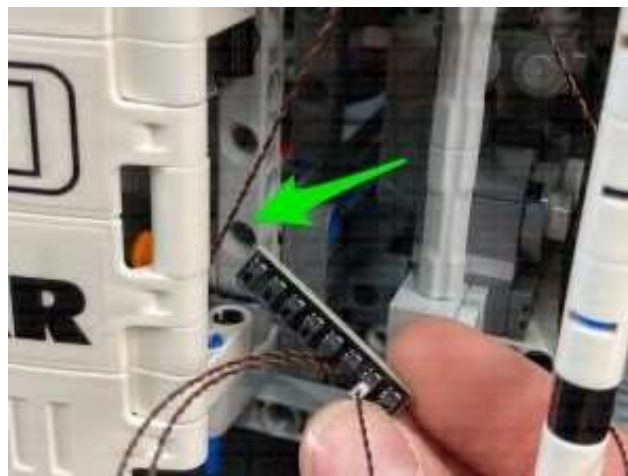
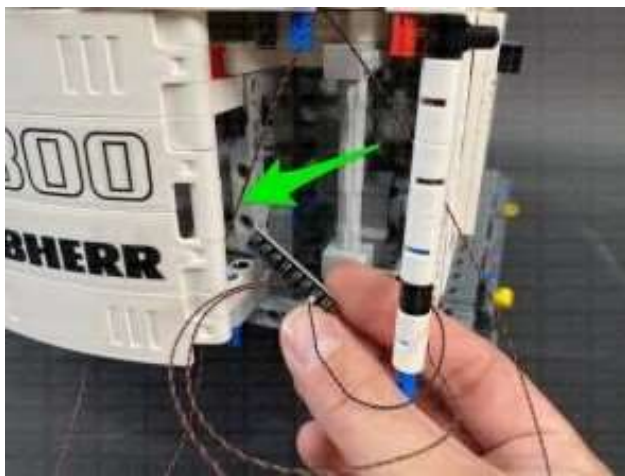


7.) Connect a **30cm Connecting Cable** to the 8-Port Expansion Board, then thread the other end of the cable up the same gap we threaded the bit light cable down. Pull the cable all the way up from above, then close up the gap from the panel on the right we disconnected earlier.

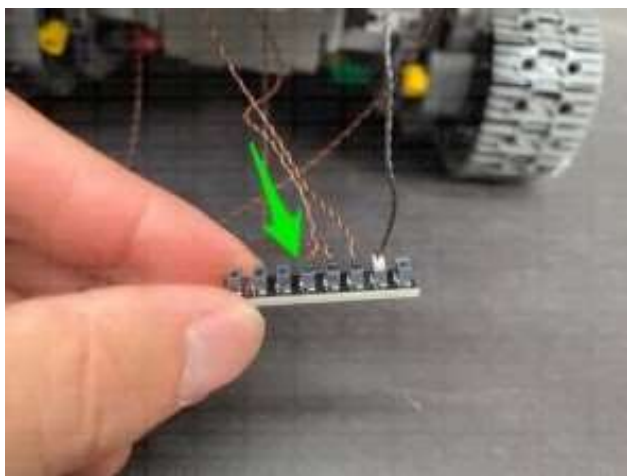
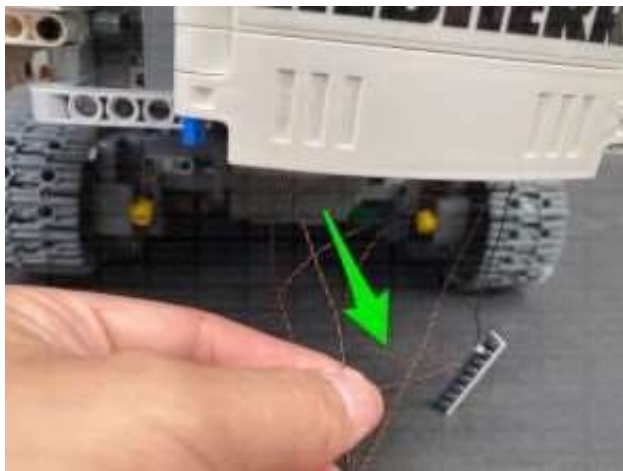
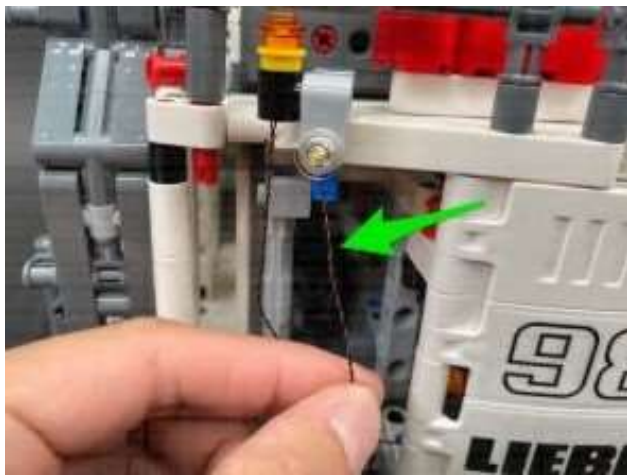




Bring the 8-Port Expansion Board through the middle section and out through the bottom

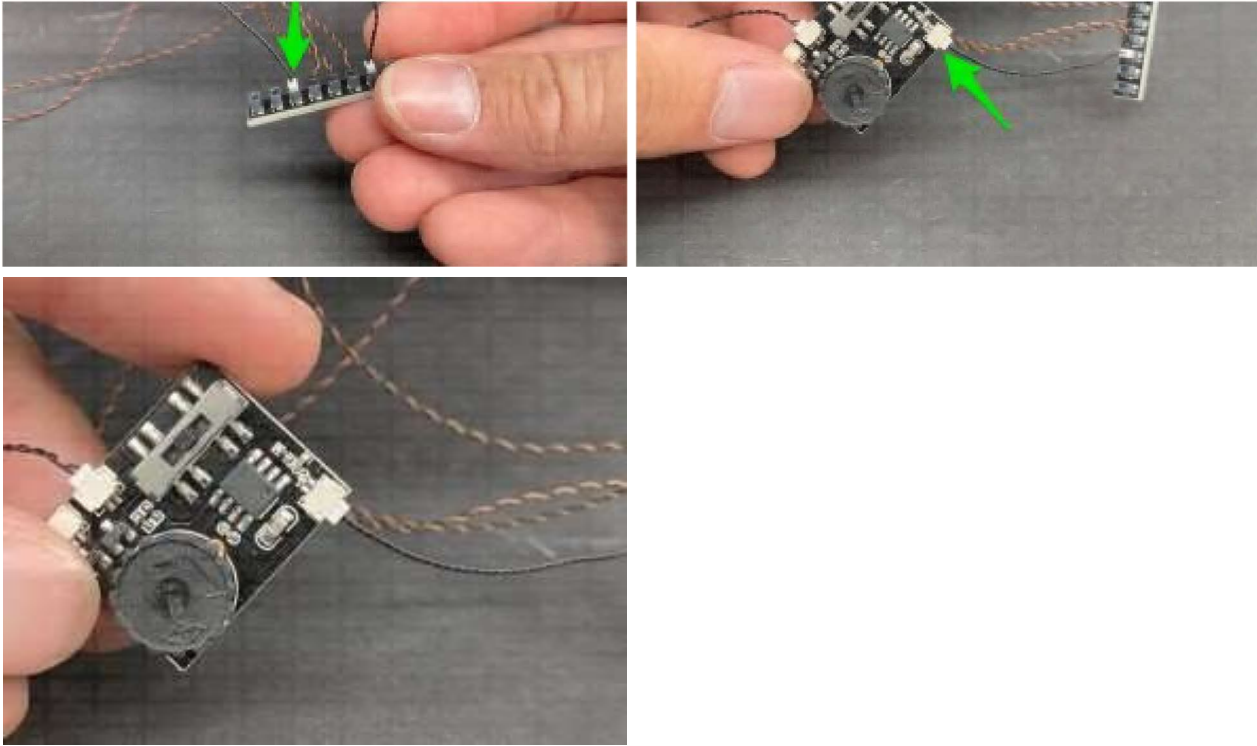


- 8.) Take the Bit Light from the trans clear plate on the rear left side, and thread it through the middle section. Pull it out from the bottom and connect it to a spare port on the 8-Port Expansion Board.



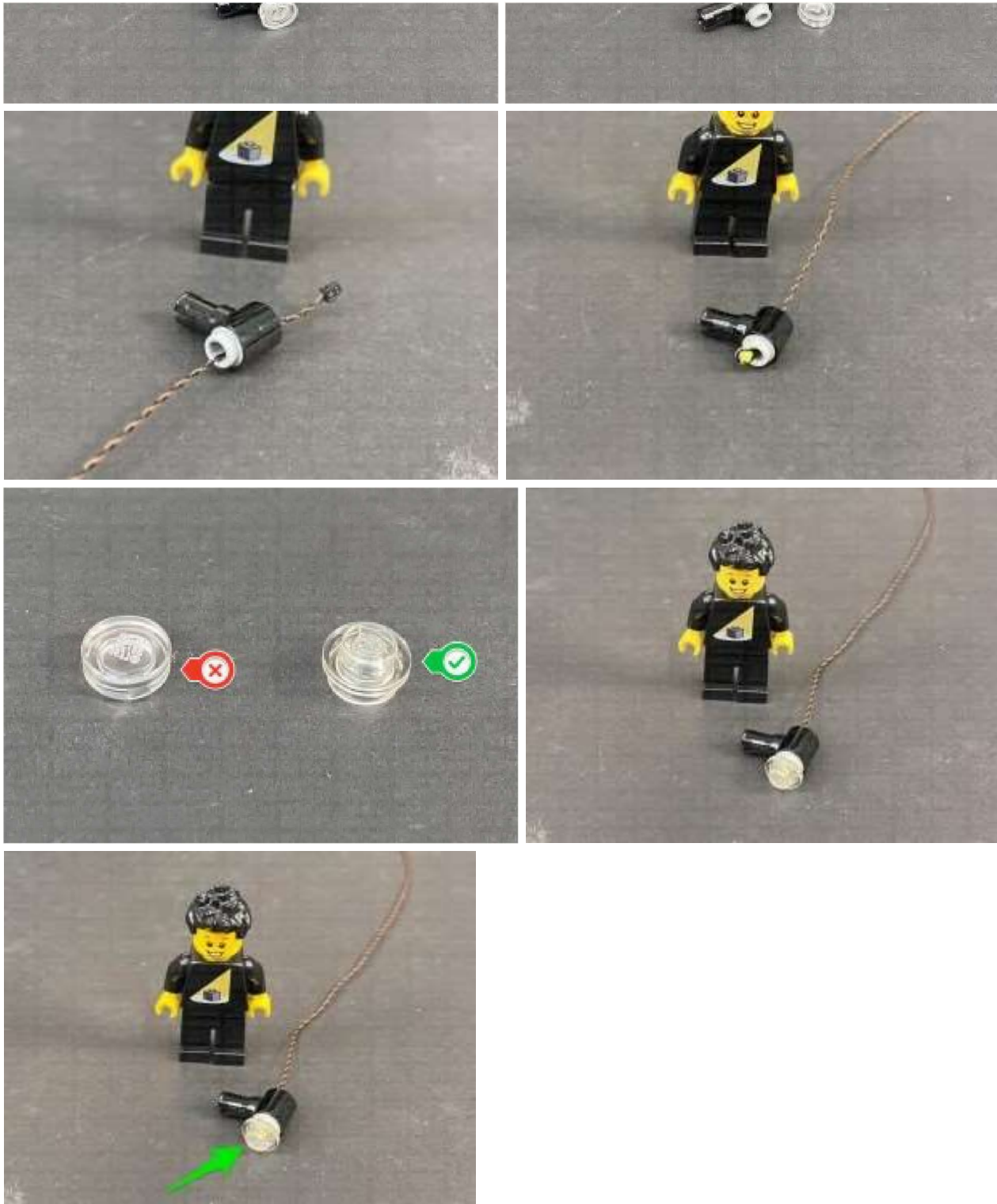
Connect a **5cm Connecting Cable** to the 8-Port Expansion Board, then connect the other end of the cable to the **IN** port (+5V) on the Multi Effects Board.



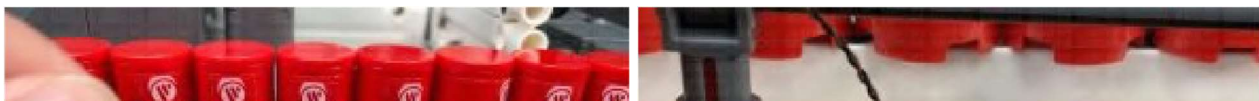


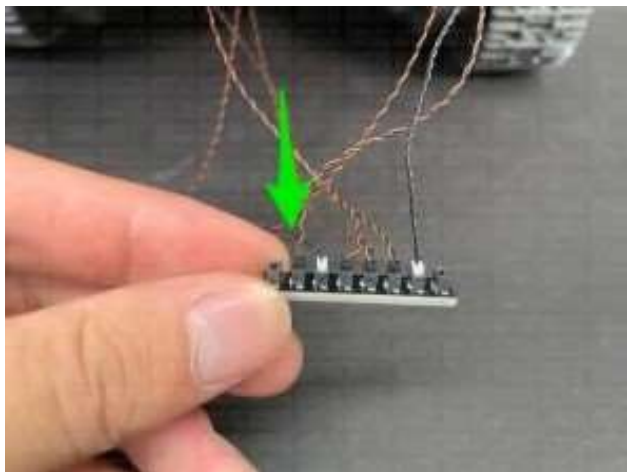
- 9.) Disconnect the light section from the middle then repeat the same method used in step 6. to install another **White 30cm Bit Light** to it, securing it in place using another provided **Round Plate 1×1 (Trans Clear)**.





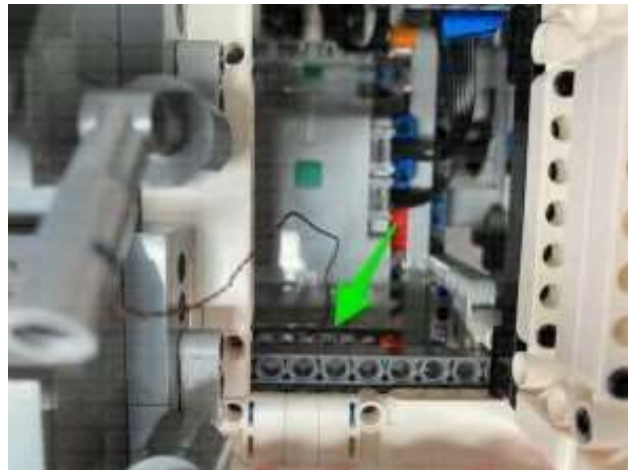
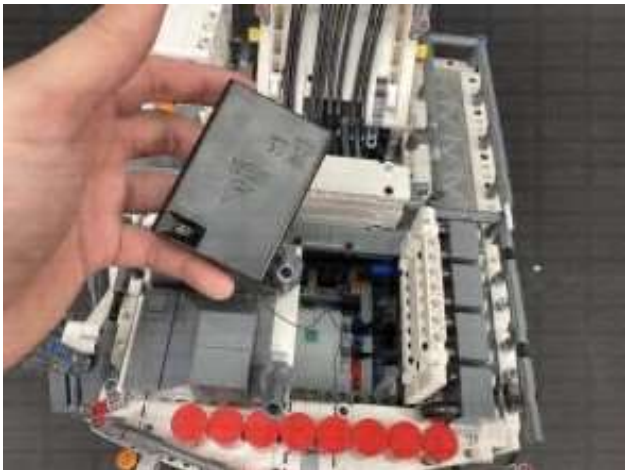
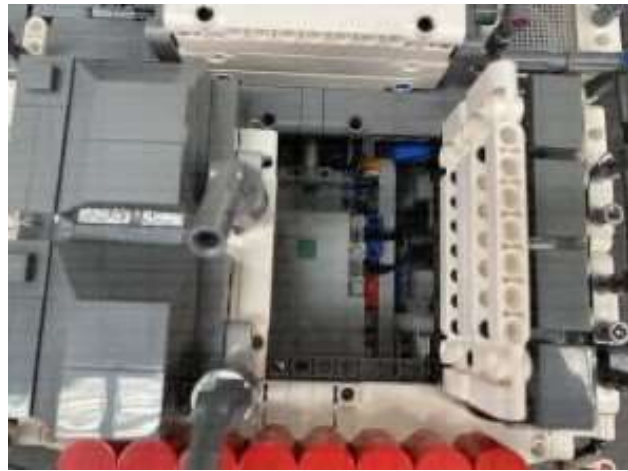
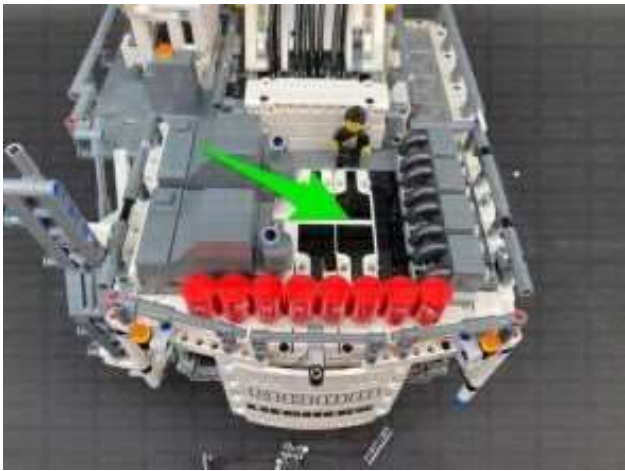
Thread the bit light cable through the following gap and pull it down from the bottom of the panel. Reconnect the light section, then connect the cable to the 8-port expansion board. Turn the light section around, then secure the cable in between grey pieces

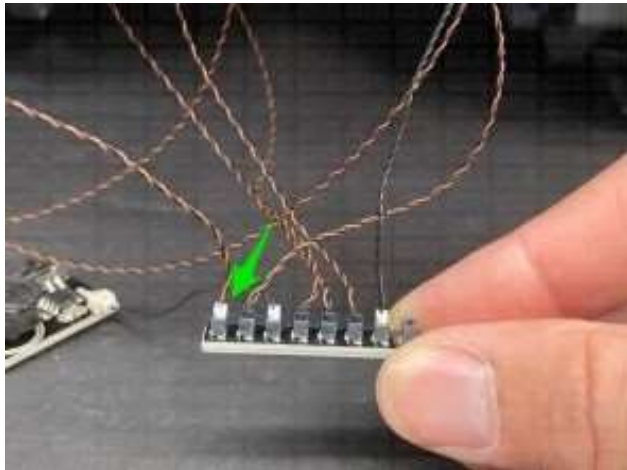
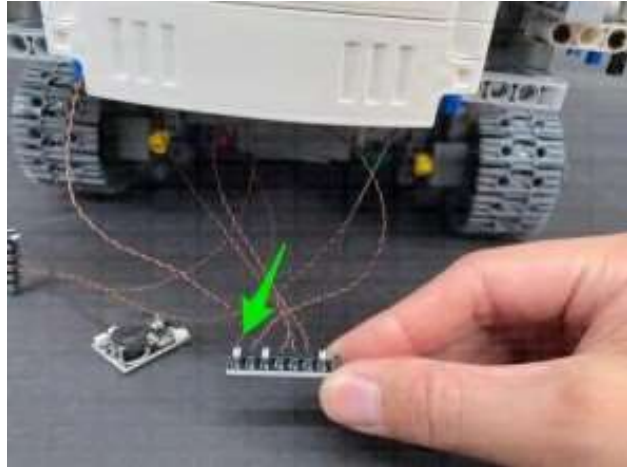
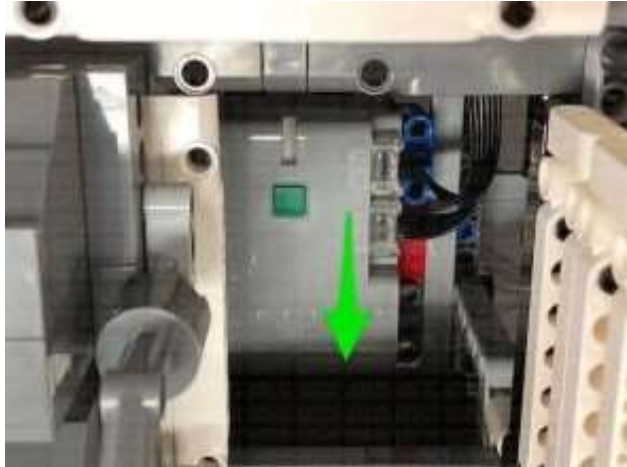






10.) Lift up the door panel on the top, then take the **AA Battery Pack** and insert 3x NEW AA Batteries to it. Place the battery pack inside this section with the battery pack cable threaded down. Pull the cable out from the bottom and connect it to the 8-Port Expansion Board.





Turn the Battery Pack ON to test all the lights installed so far are working OK.
Adjust the effects as desired.

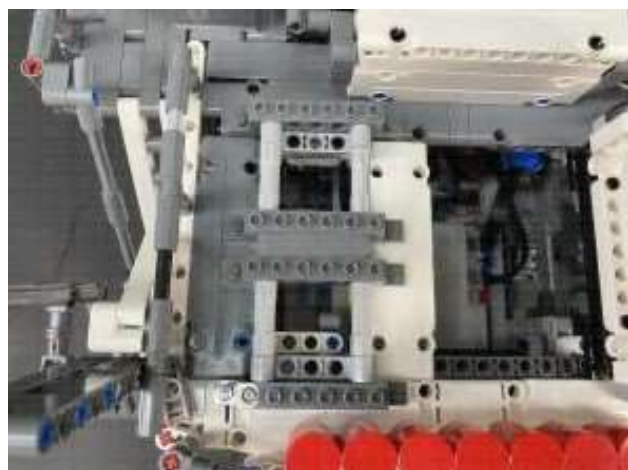
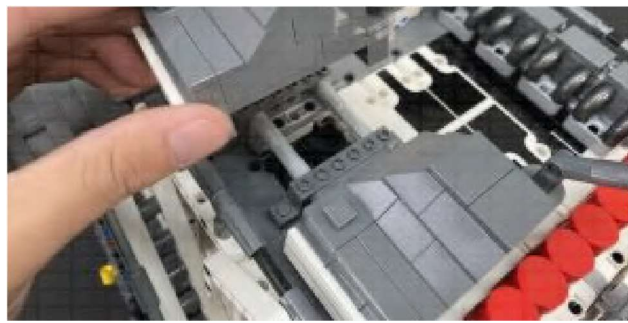
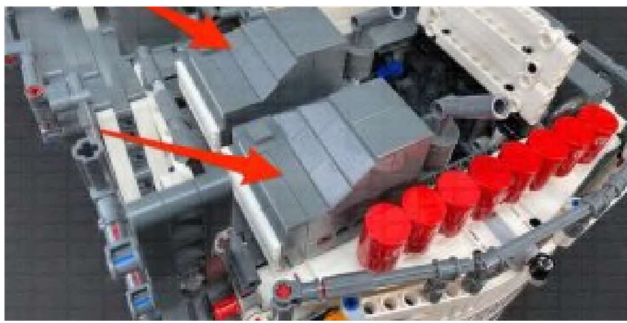




Note: If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light, expansion board or effects board). To correct any issues with expansion board ports, please view the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

11.) Disconnect the following sections from the top.



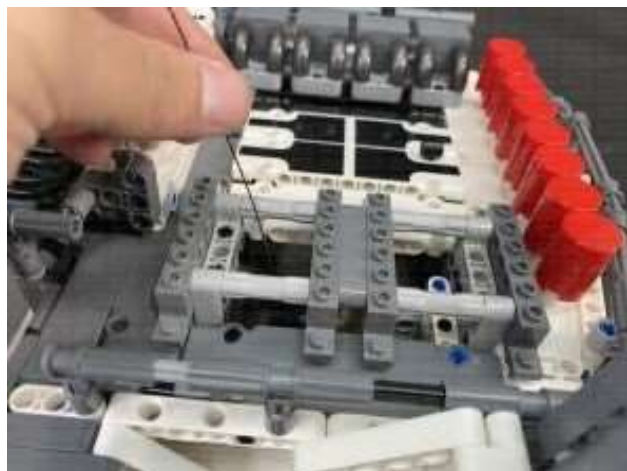
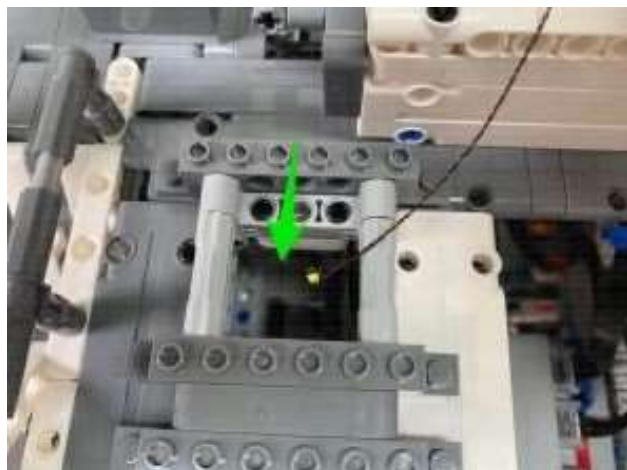
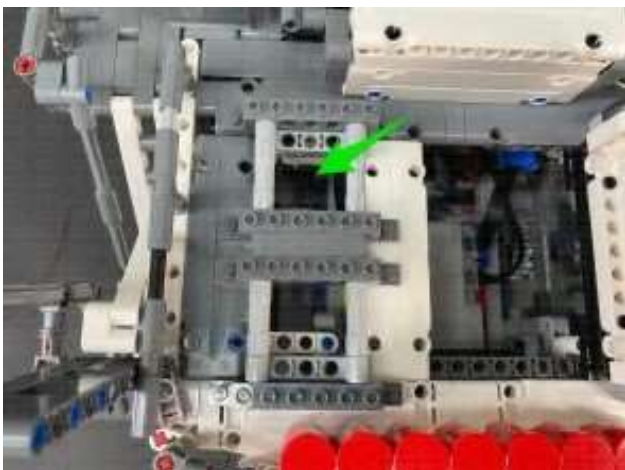


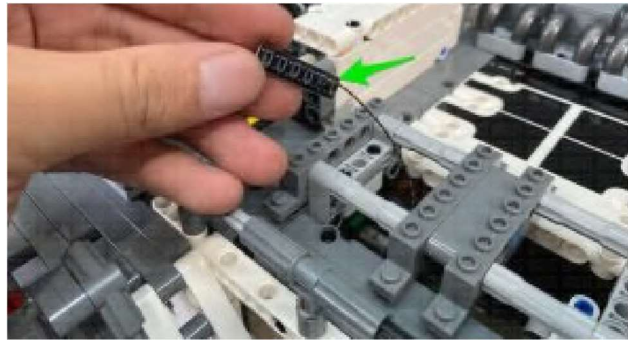
Disconnect the following pieces from the light section on the bottom left of the vehicle.



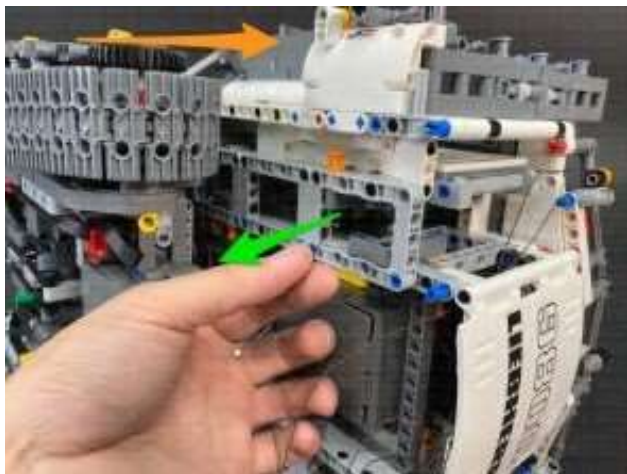


12.) Thread the LED end of a new **White 30cm Bit Light** down the following space, then connect the connector end of the cable to a new **6-Port Expansion Board**.



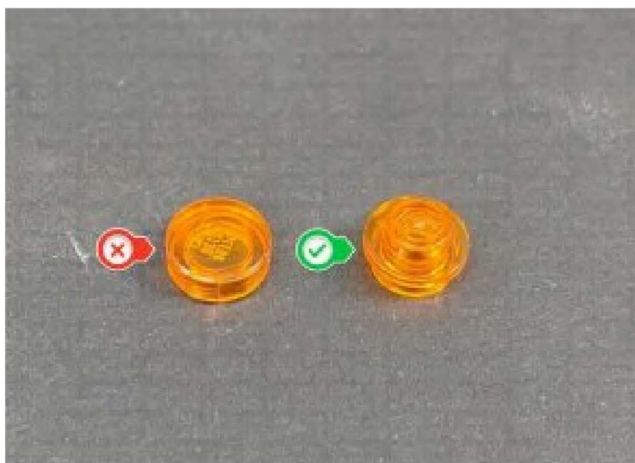
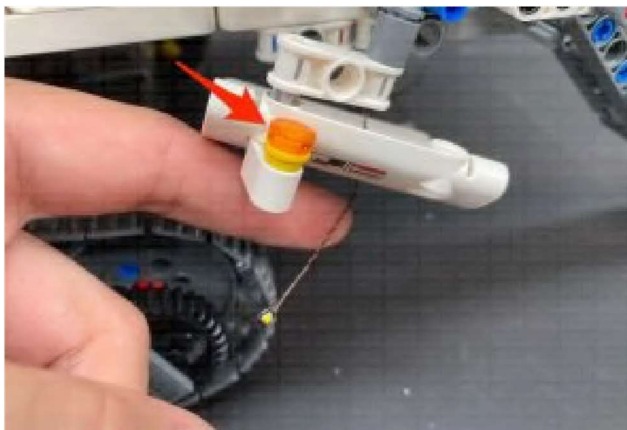


Carefully flip the excavator onto it's right side and pull the LED end of the Bit Light out from the bottom. Flip the excavator back over, then thread the Bit Light we pulled down, through and in between the following white pieces.



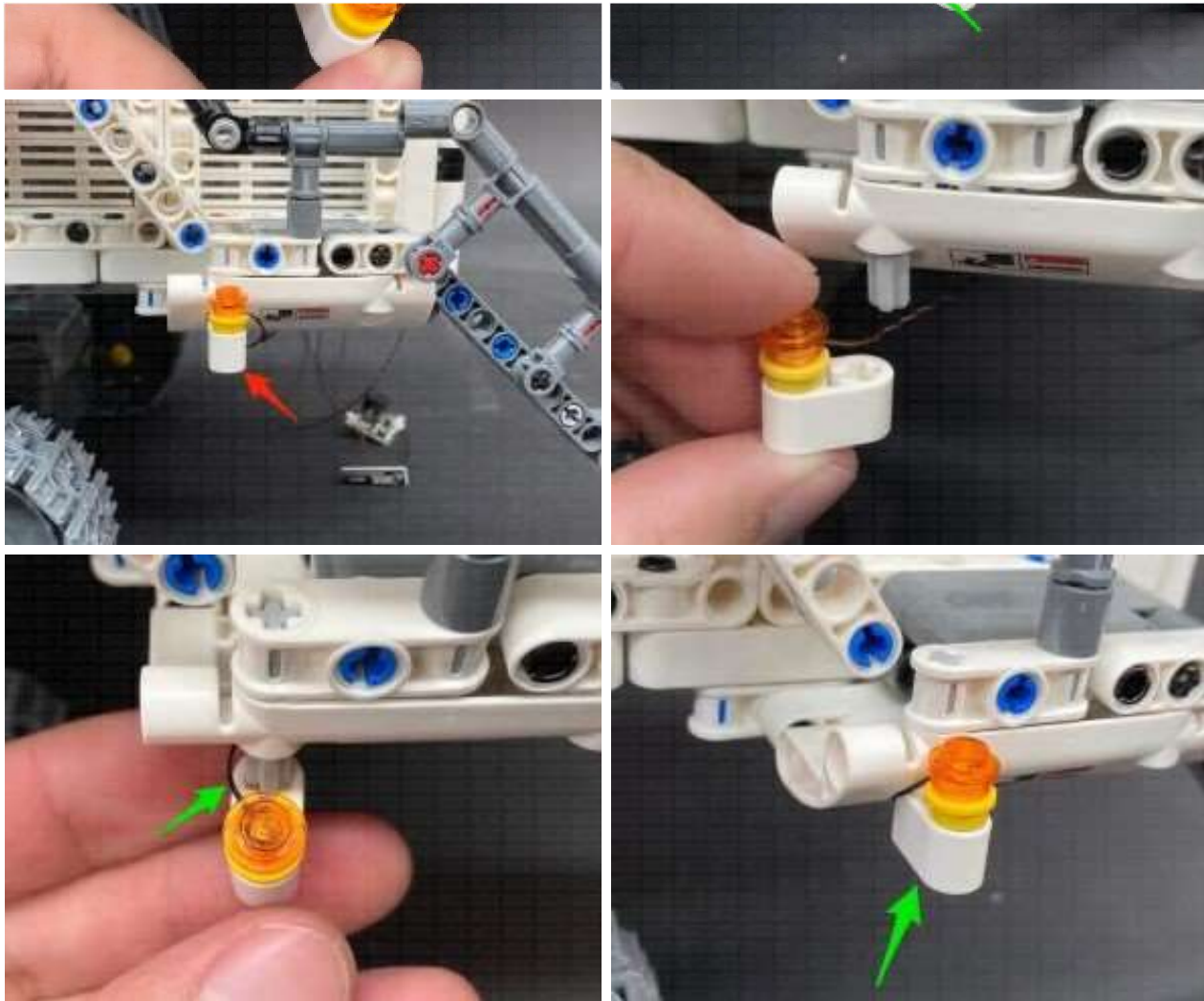
Disconnect the trans orange tile, then bring the cable underneath and place the Bit Light over the yellow stud. Secure it in place using a provided **Round Plate 1×1 (Trans Orange)**



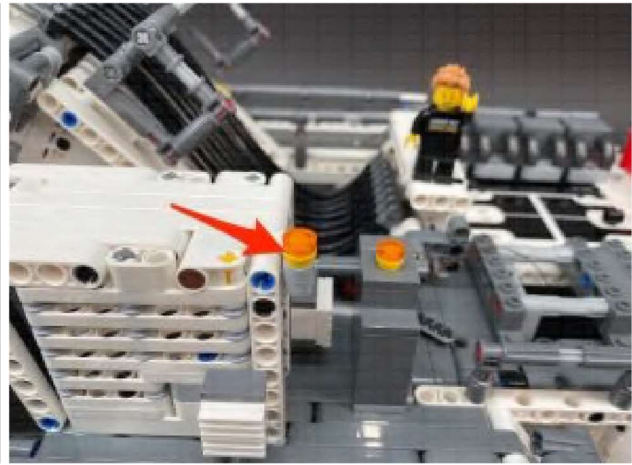


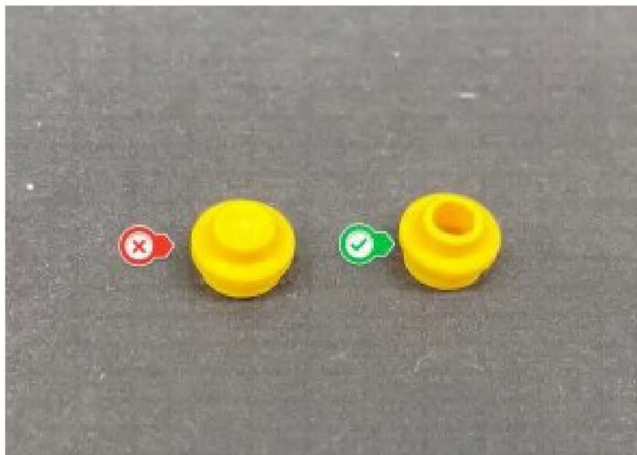
Reconnect pieces surrounding the light section, then disconnect and reconnect the white brick over the cable to secure it in place.

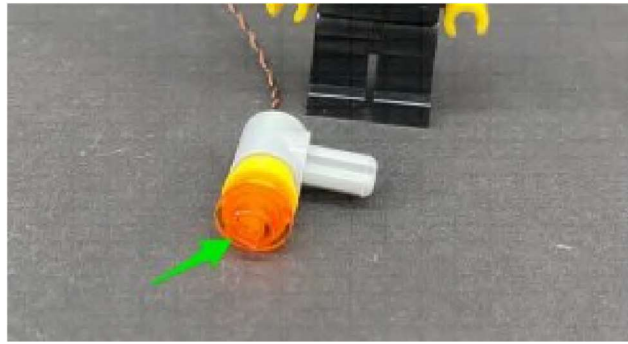




13.) Disconnect the following light section from behind the control seat. Disassemble it and connect a provided **Round Plate 1×1 with Open Stud (Yellow)** to it. Install a **White 30cm Bit Light**, securing it in place with a provided **Round Plate 1×1 (Trans Orange)**

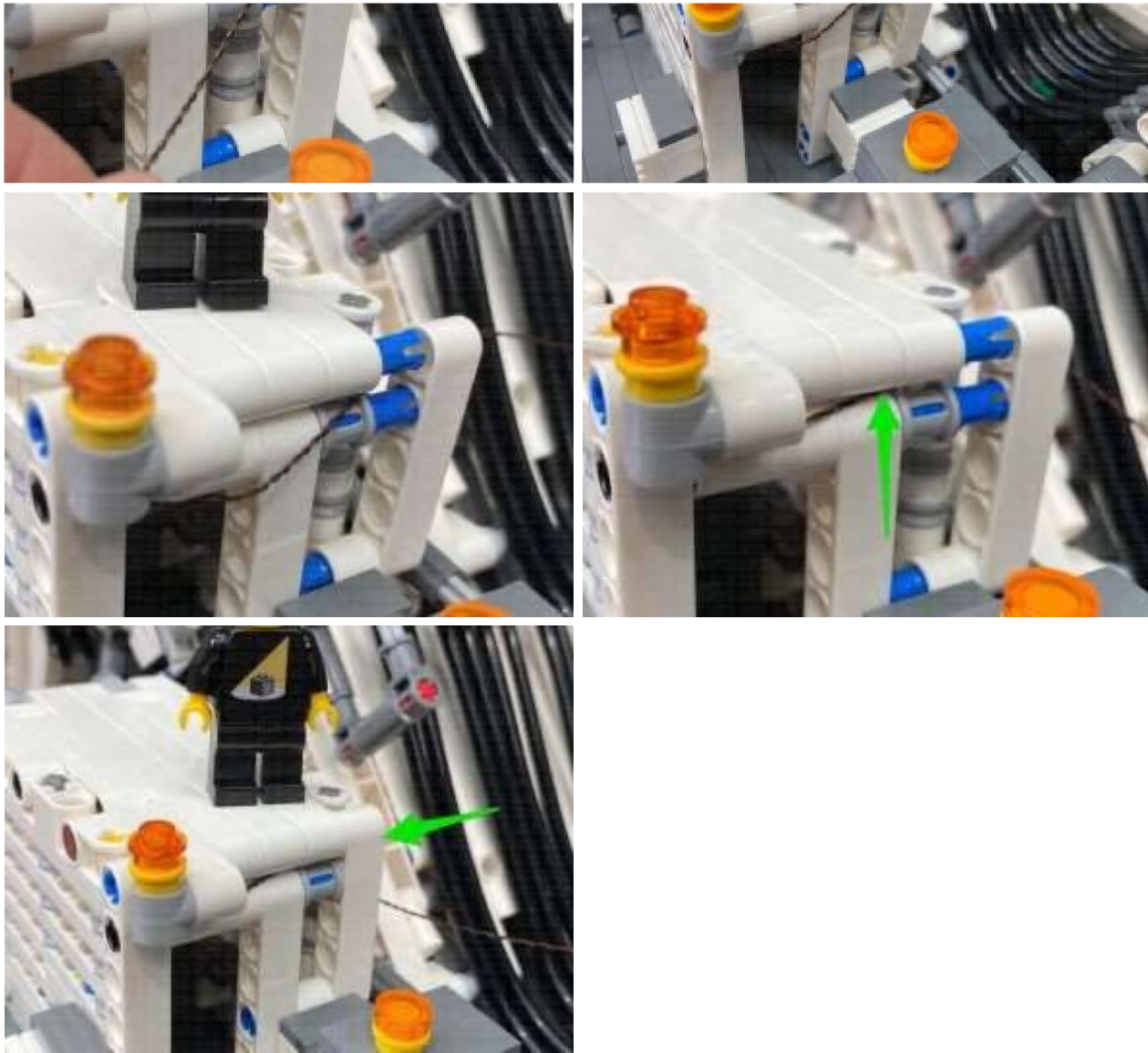






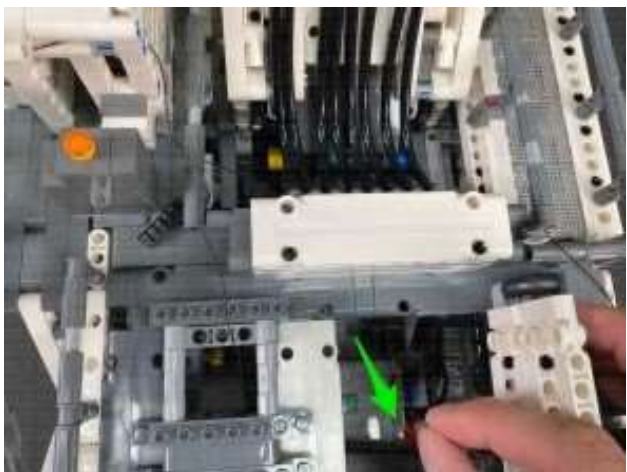
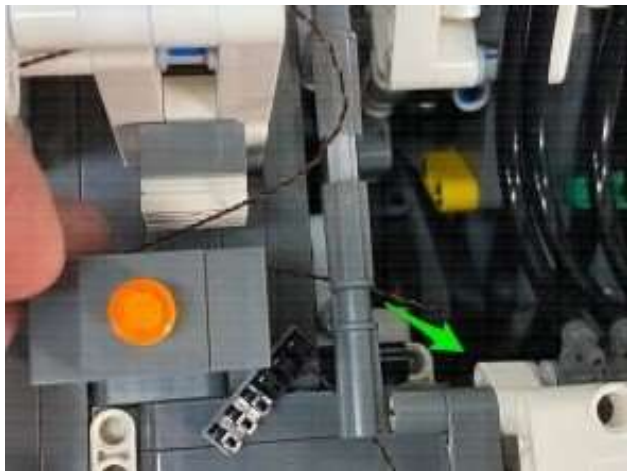
14.) Reconnect this section then disconnect the white piece to the right and thread the cable through and in between the blue pins. Pull the cable all the way out, then tuck it in between sections. Reconnect the white piece.



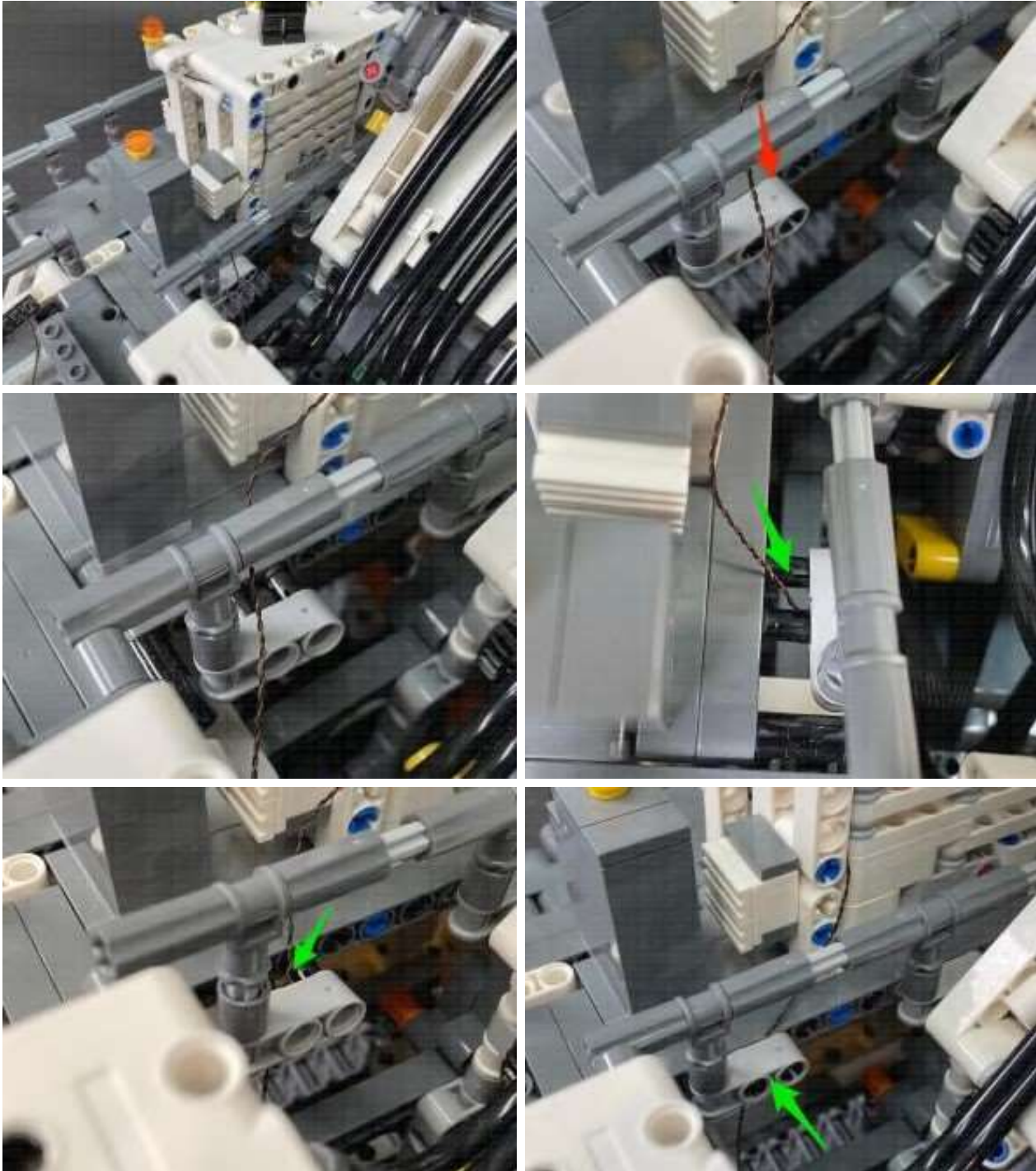


Thread the cable down behind the control section and underneath the railing. Thread the cable down the following space, pulling it out through the space where the battery pack is. Thread the cable back under toward the left side and pull it up the space on the top left. Pull the cable out and connect it to a spare port on the 6-Port Expansion Board (same expansion board we connected the bottom left light to).



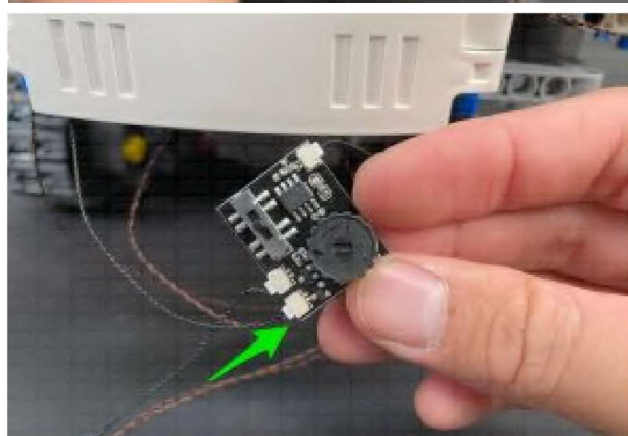
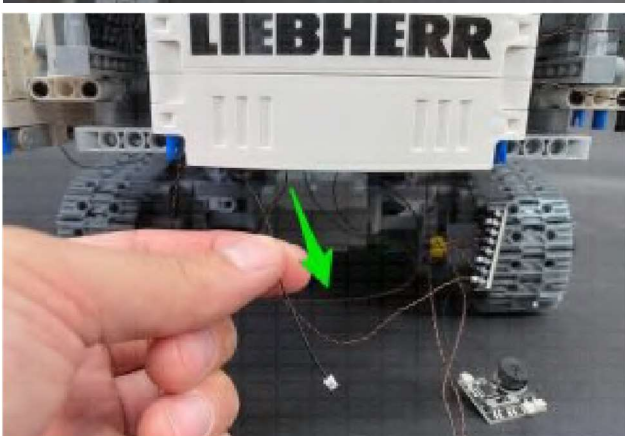
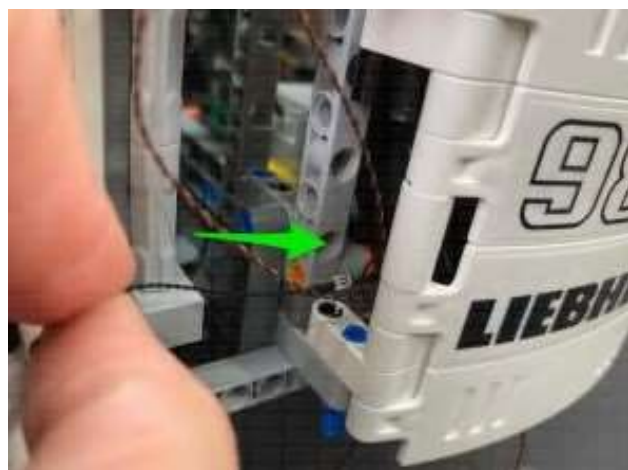
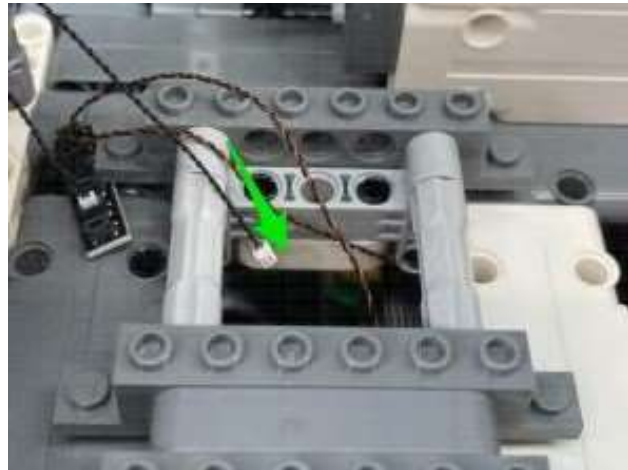


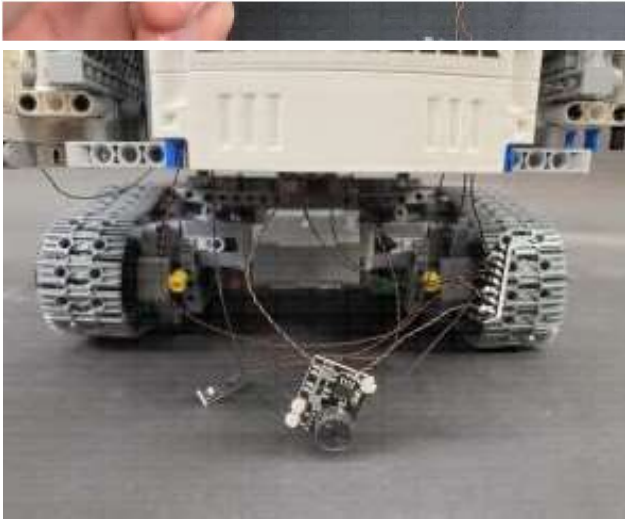
Secure the Bit Light cable in between the following pieces.



15.) Connect a **15cm Connecting Cable** to the 6-Port Expansion Board, then thread the cable down the following space and pull it out from the back of the excavator. Bring the cable through the middle panel and pull it out

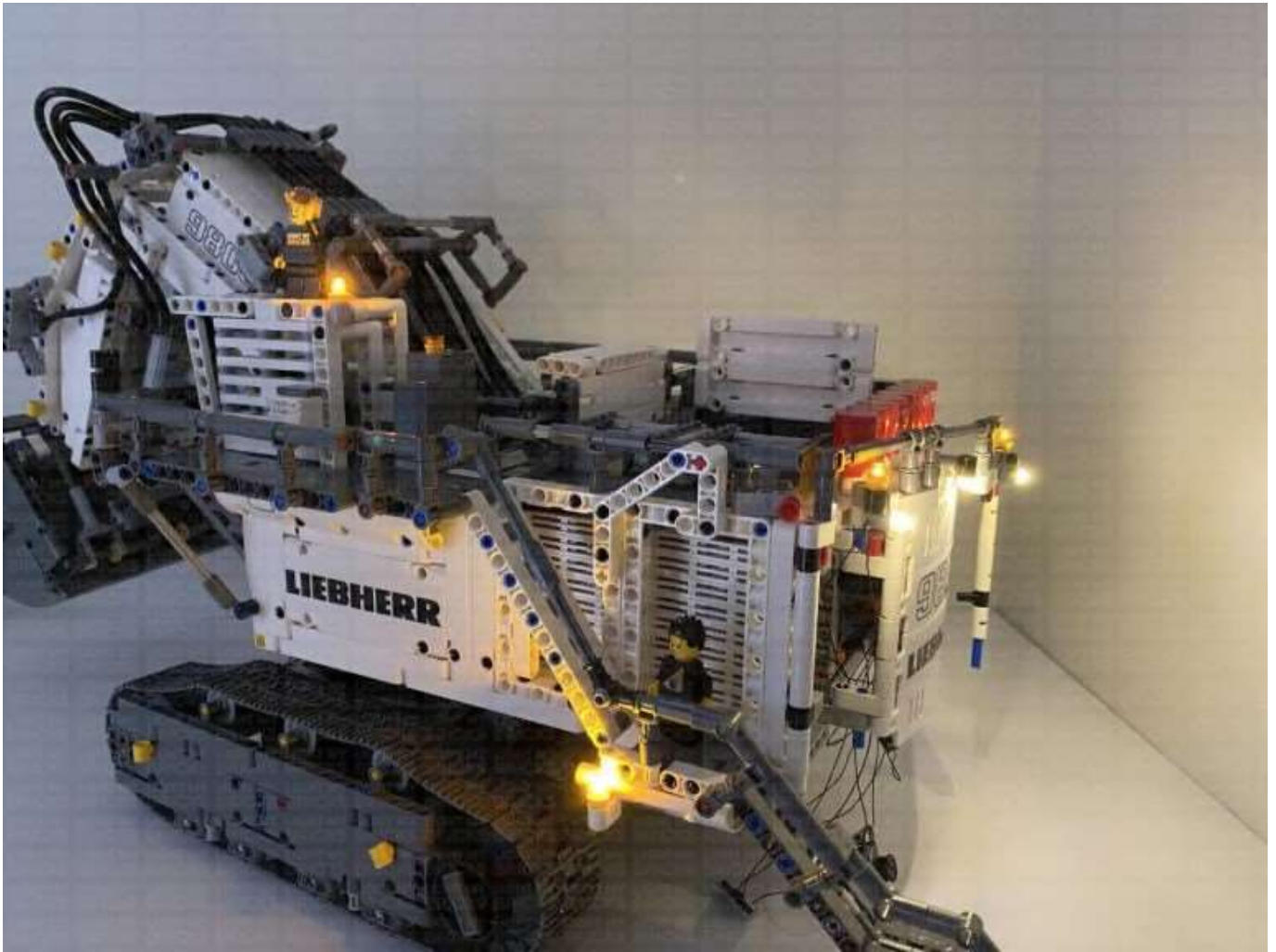
from the bottom. Connect the cable to the other OUT port on the Multi Effects Board.





Turn the Battery Pack ON to test the emergency lights we have installed are working OK. They should be flashing in alternate sequence to the rear lights on the top.

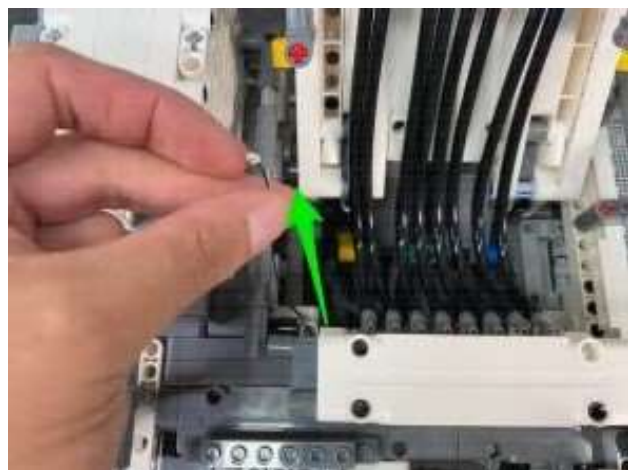
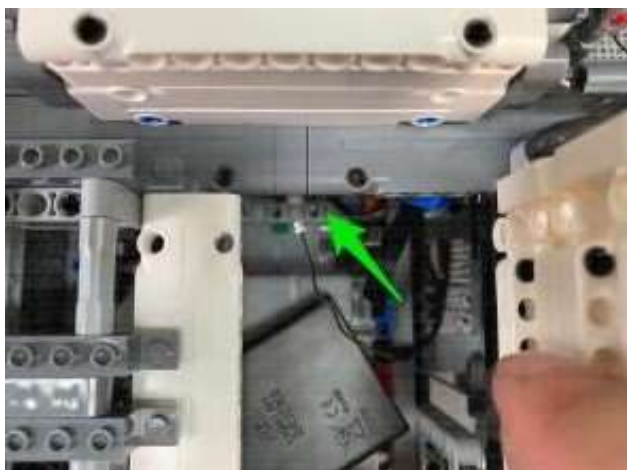
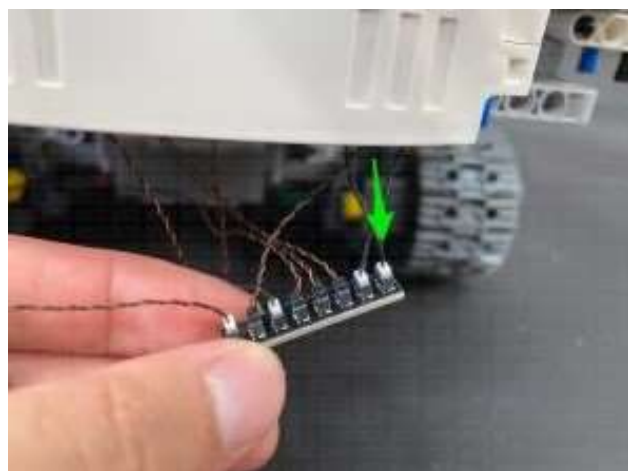


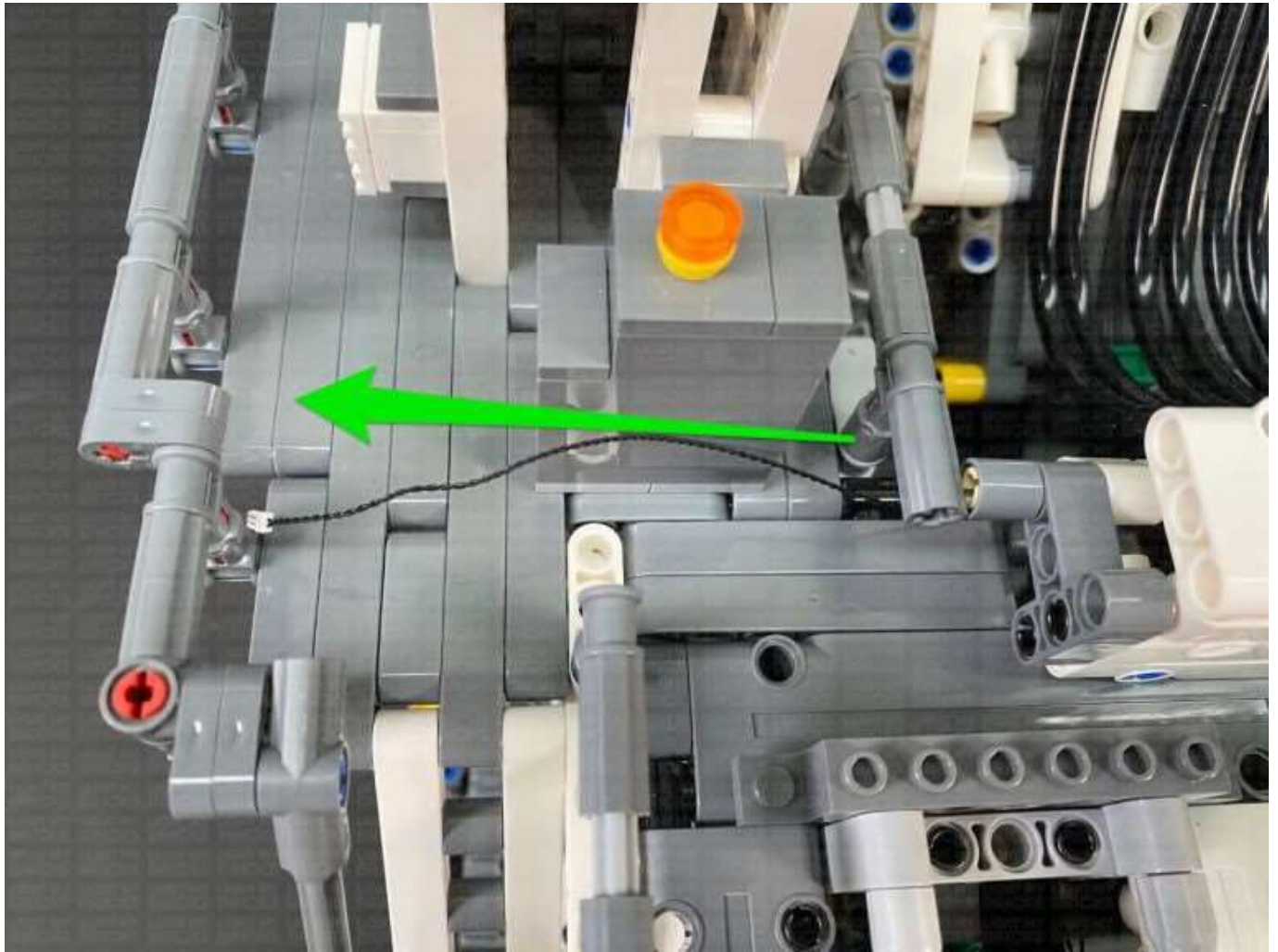


Note: If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light, expansion board or effects board). To correct any issues with expansion board ports, please view the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

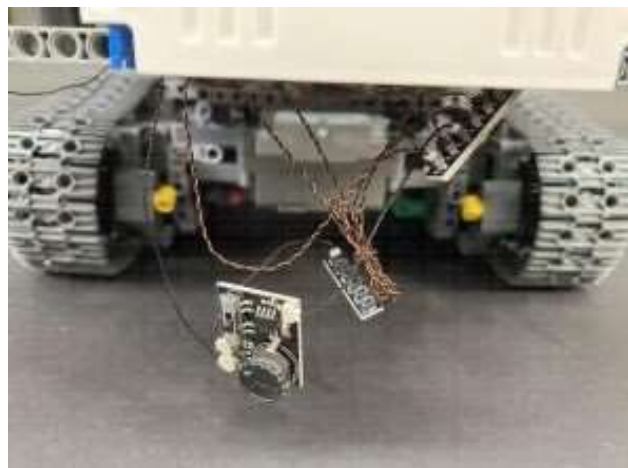
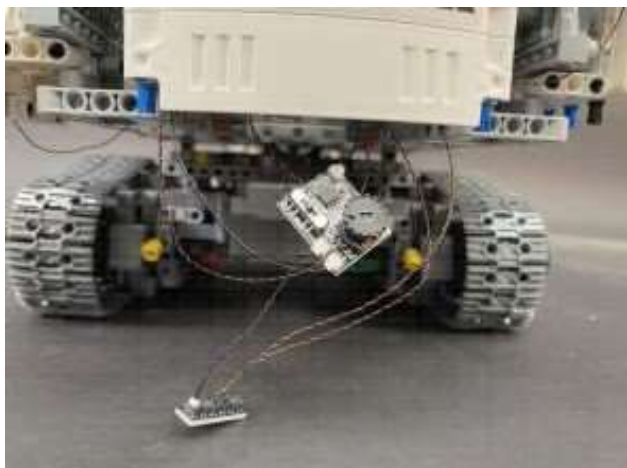
16.) Take another **30cm Connecting Cable** and thread it down the following open space where the battery pack is placed. Pull the cable out from the bottom and connect it to the remaining port on the 8-Port Expansion

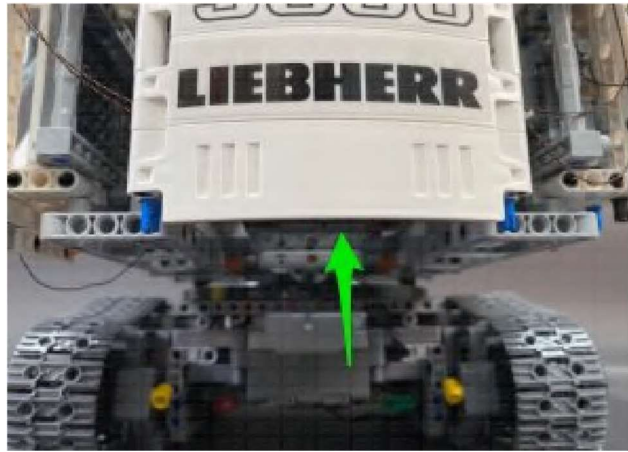
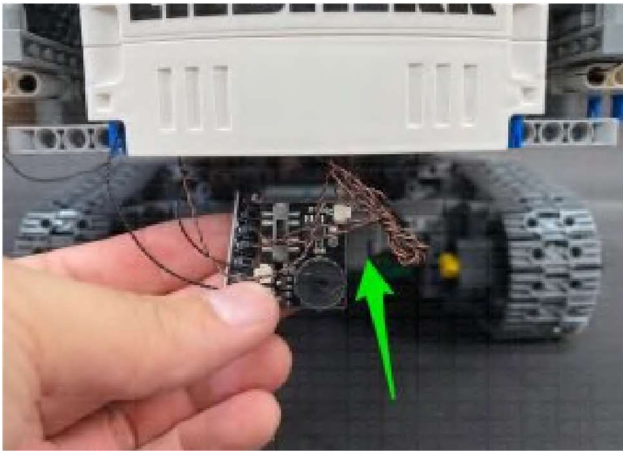
Board. Thread the other end of the cable through to the section above, then toward the left (underneath the railing).



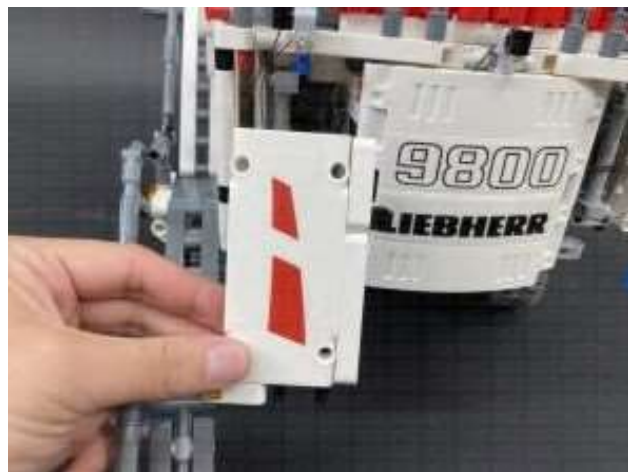


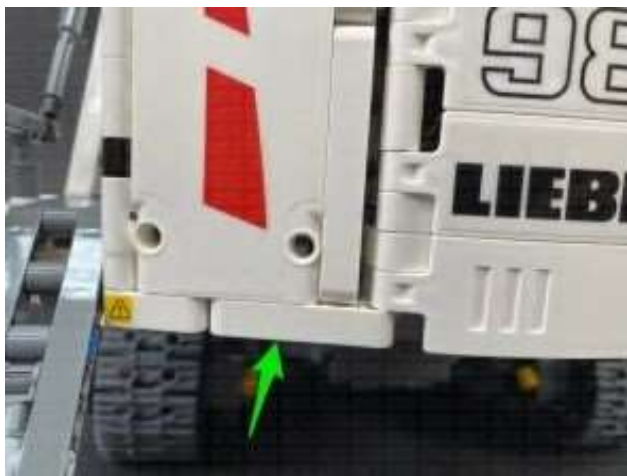
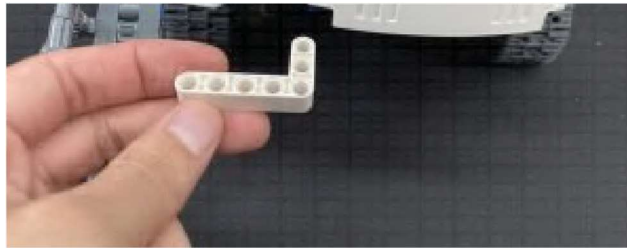
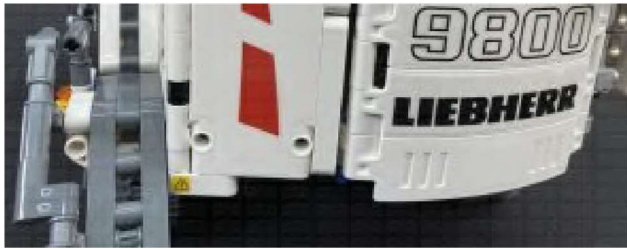
Neaten up the Bit Light cables on the bottom of the rear side by twisting/folding them into a neat bunch, then tuck all the components and cables up into the section above.





17.) Reconnect all the rear sections we disconnected at the very beginning of this guide.

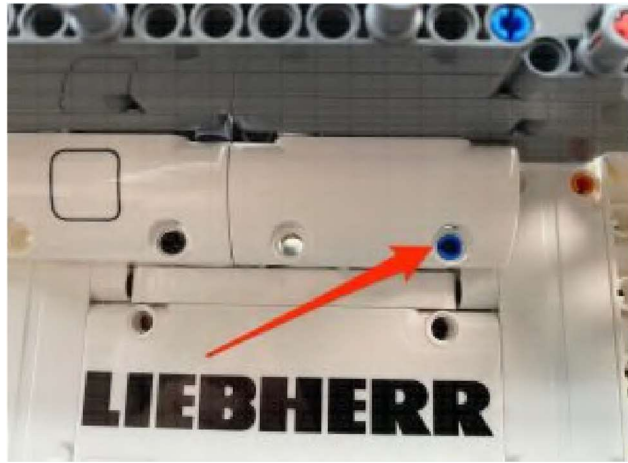
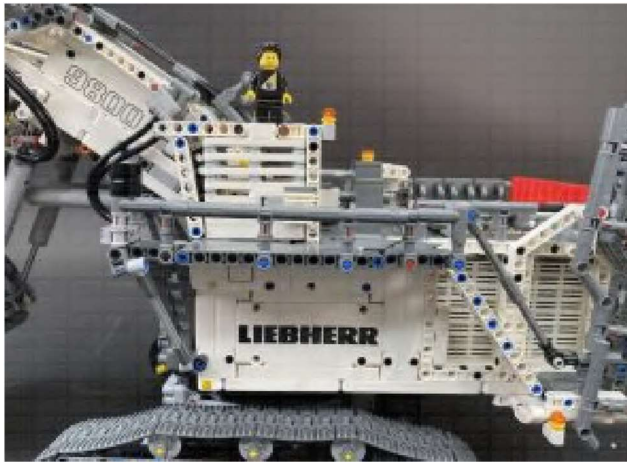


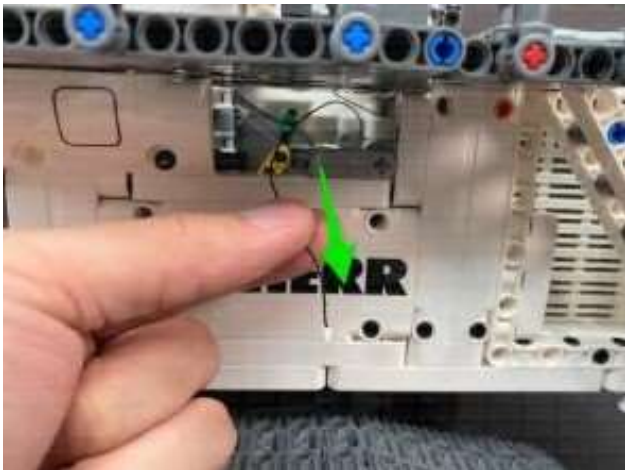
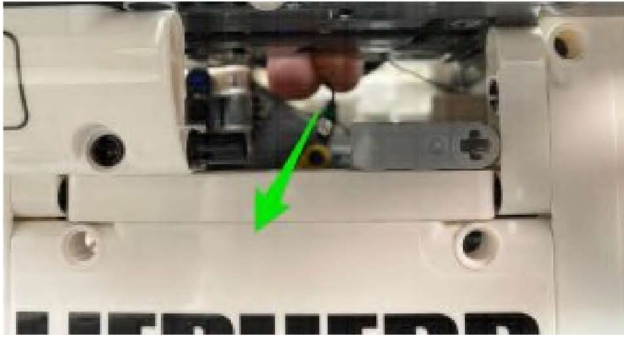
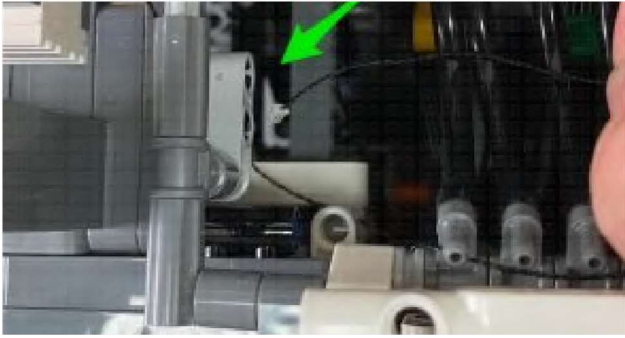




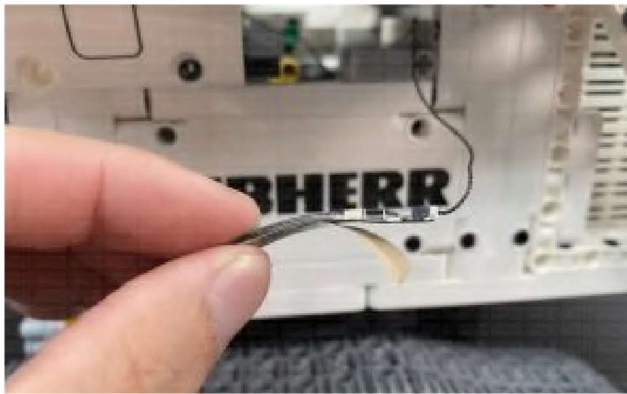
18.) Disconnect the following panel just above the Liebherr sign, then thread the other end of the 30cm Connecting Cable from above down the space, pulling it out from underneath as shown below.

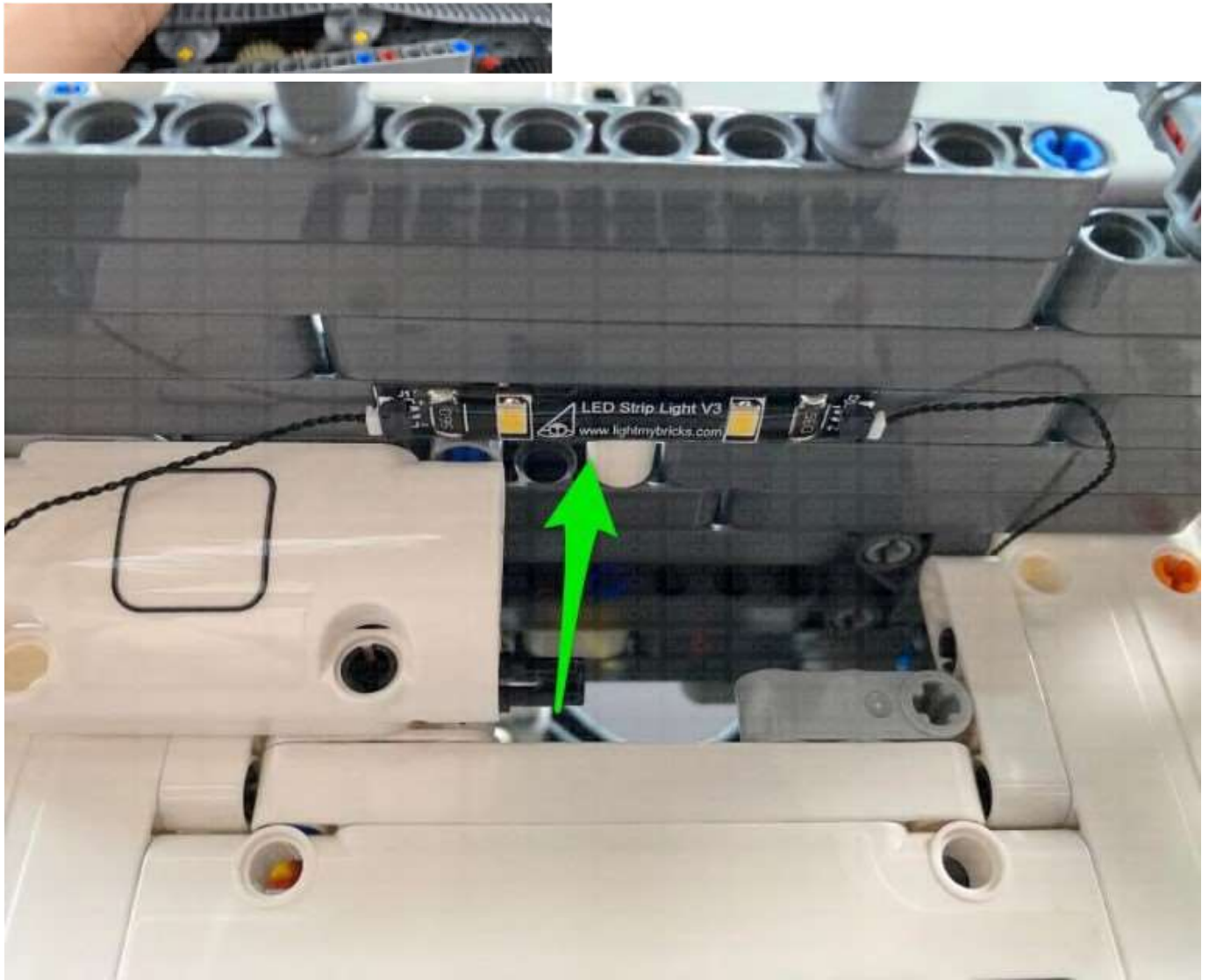






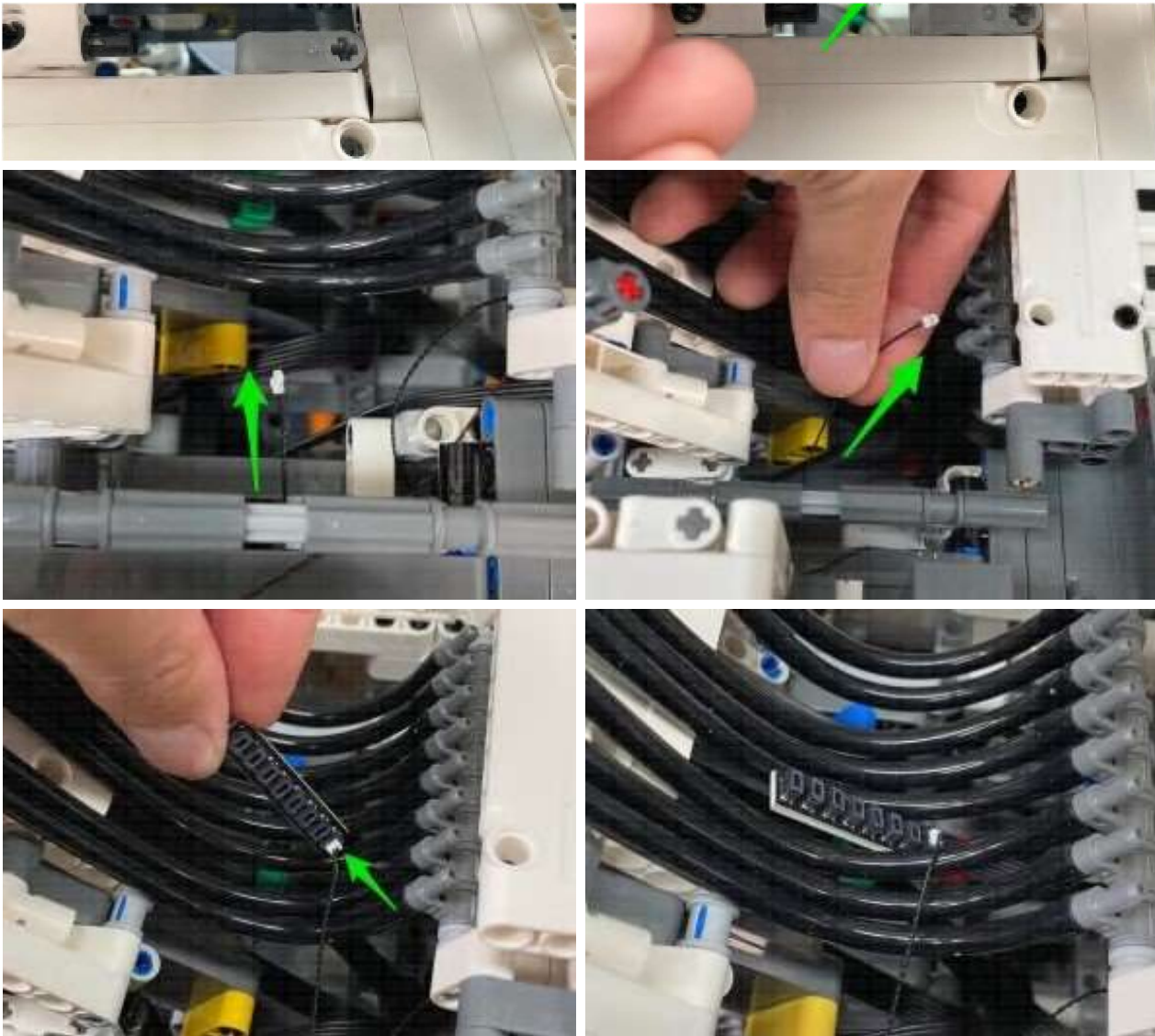
Connect the cable to a **White Strip Light**. Take another **15cm Connecting Cable** and connect it to the spare port on the Strip Light. Using it's adhesive backing, stick the strip light underneath the rail platform in the following position.



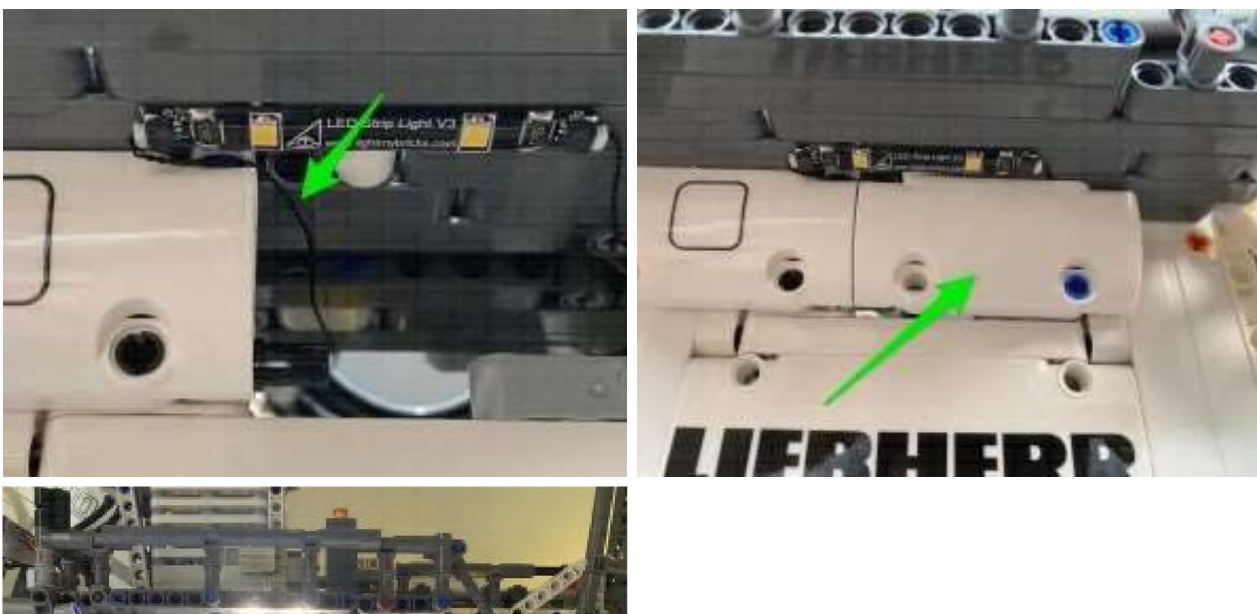


- 19.) Tuck the 30cm Connecting Cable in, then thread the other end of the 15cm Connecting Cable through this space and pull it out from the top side and connect it to a new **8-Port Expansion Board**.





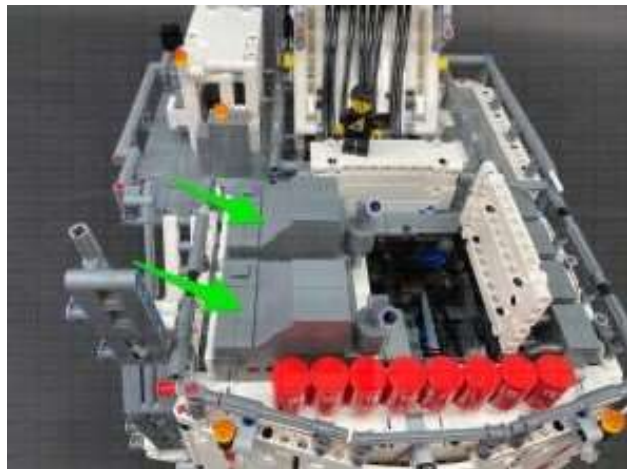
Tuck the 15cm Connecting Cable inside, then reconnect the panel we removed earlier. Turn ON the power to test the strip light is working OK.



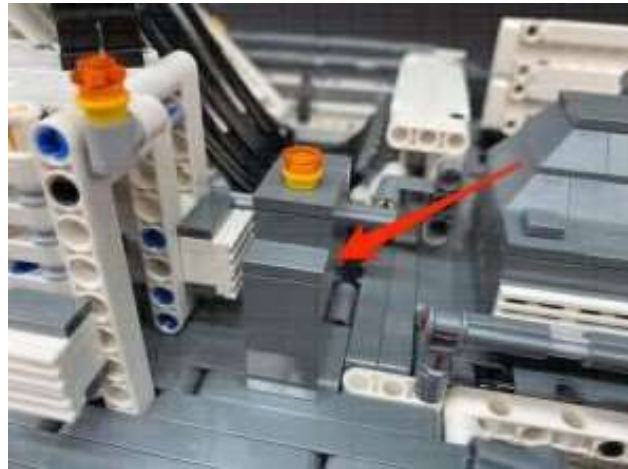


Note: If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light, expansion board or effects board). To correct any issues with expansion board ports, please view the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

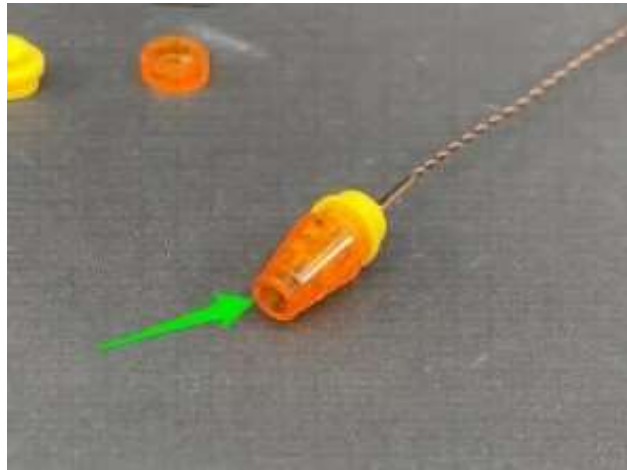
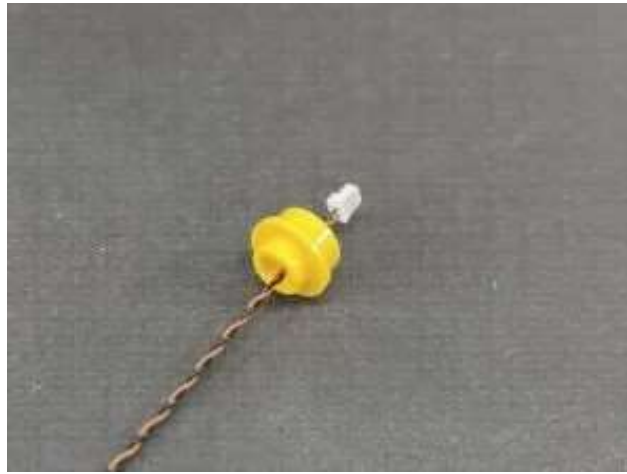
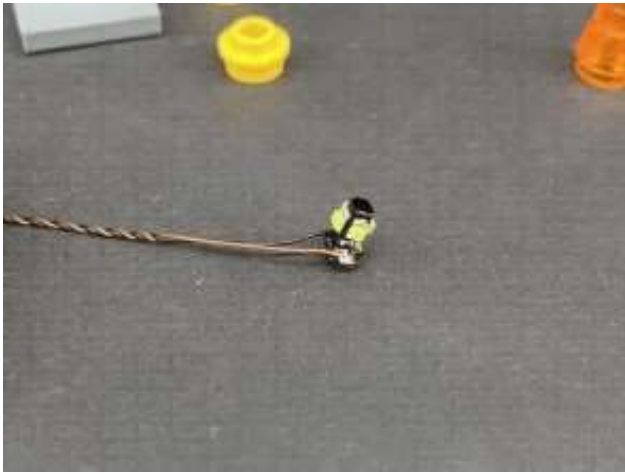
Reconnect both sections above.



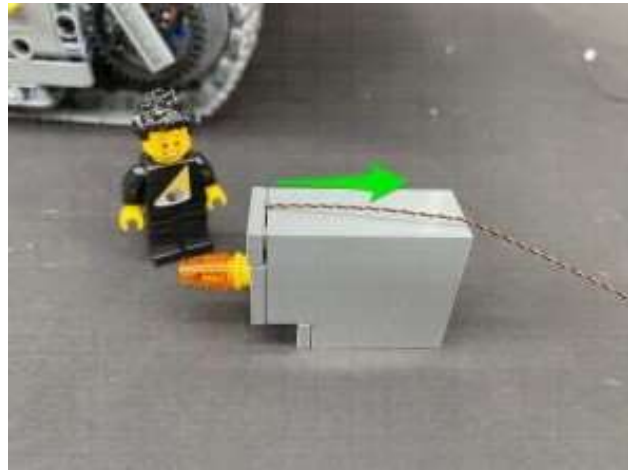
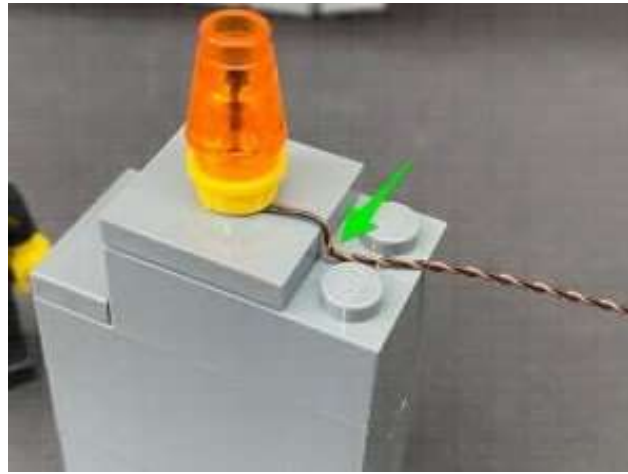
20.) Disconnect the following section behind the control seat, then disassemble it as per below.



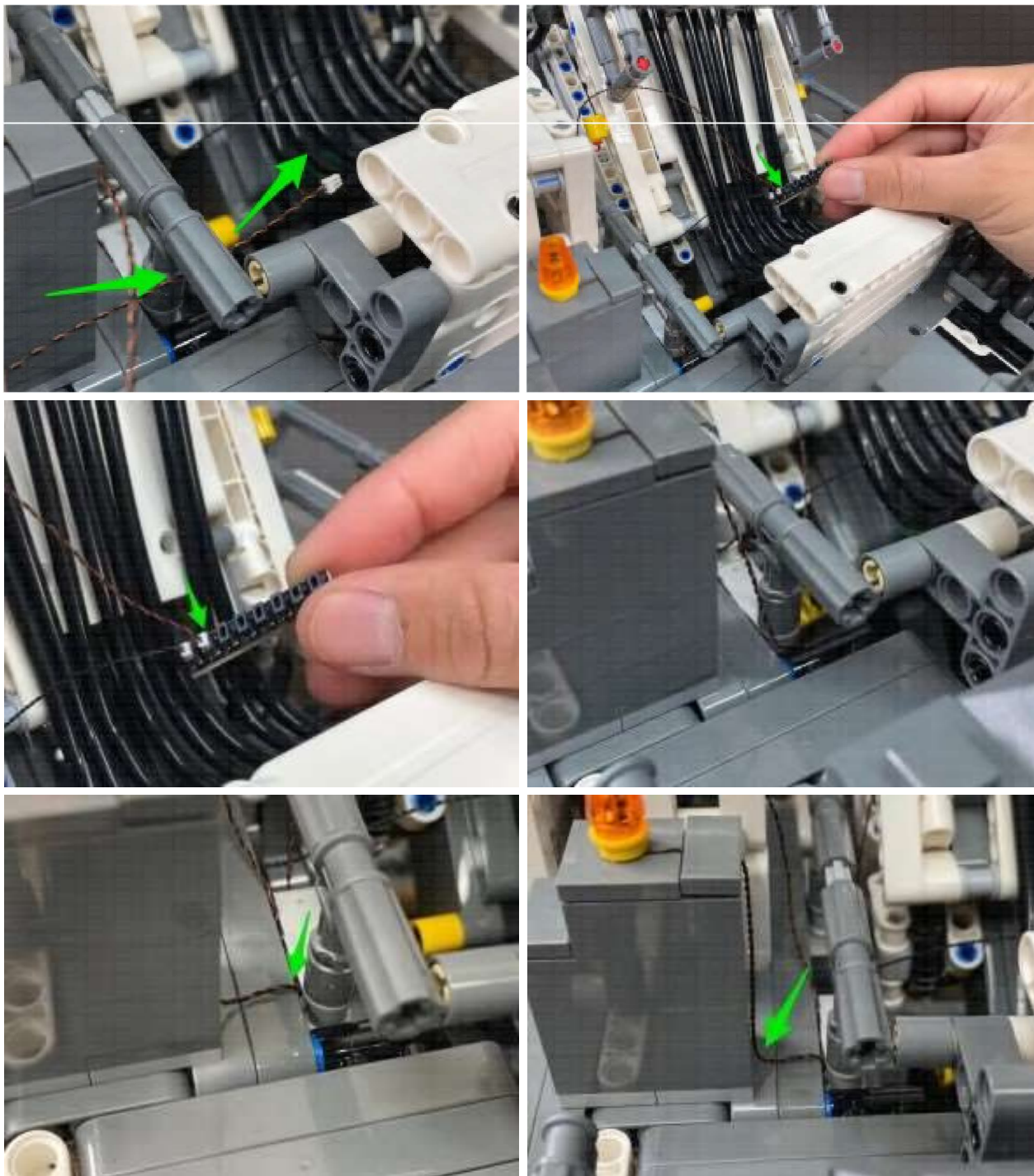
Take a **Rotating White 30cm Bit Light** and thread the cable through a provided **Round Plate 1×1 with Open Stud (Yellow)**. Connect a provided **Cone 1×1 with Top Groove (Trans Orange)** over the top of the rotating light, then reconnect this to the 2×2 tile.



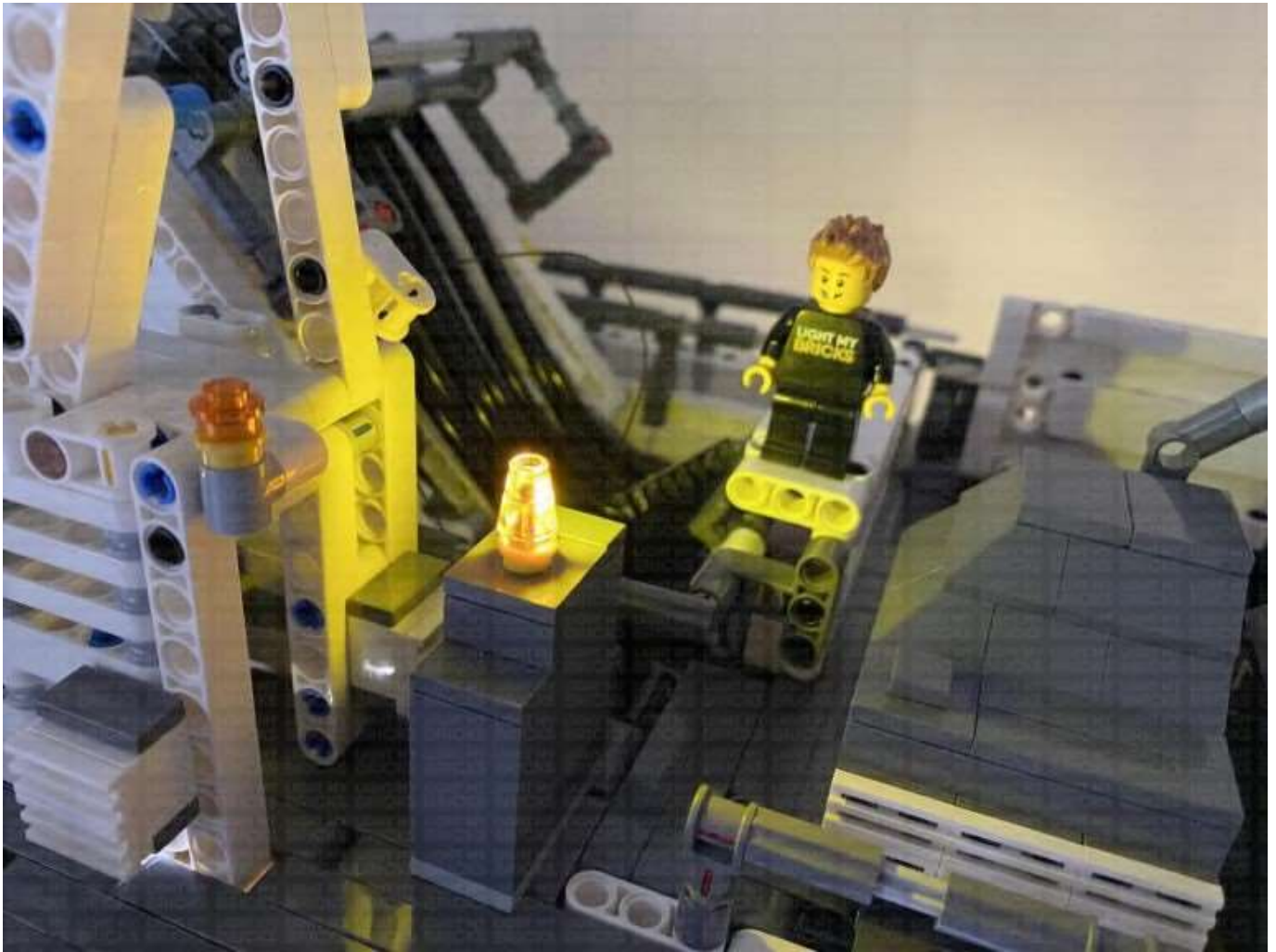
Reconnect this tile ensuring the cable is laid toward the back. Press the cable down into the corner of the tile, before reconnecting the 1×2 tile over the top. Fold down the cable down the back of the section, then reconnect it to the top of the excavator.



- 21.) Thread the Rotating Bit Light cable underneath the railing and connect it to a spare port on the 8-Port Expansion Board. Secure the cable down in between bricks, and push it down in the corner to hide it as much as possible.



Turn the power ON to test the Rotating Light is working OK.



22.) Disconnect sections above the control chair.



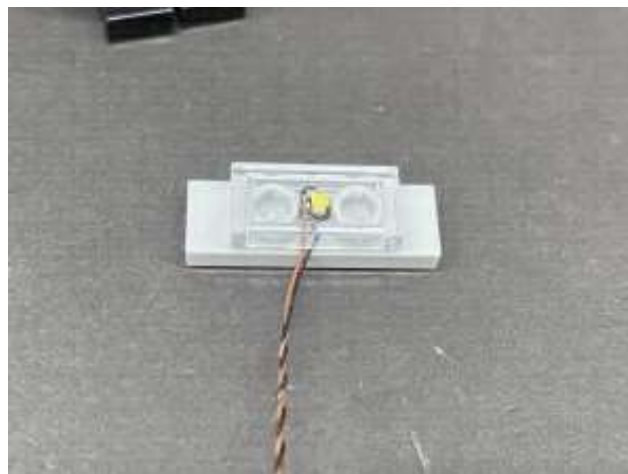


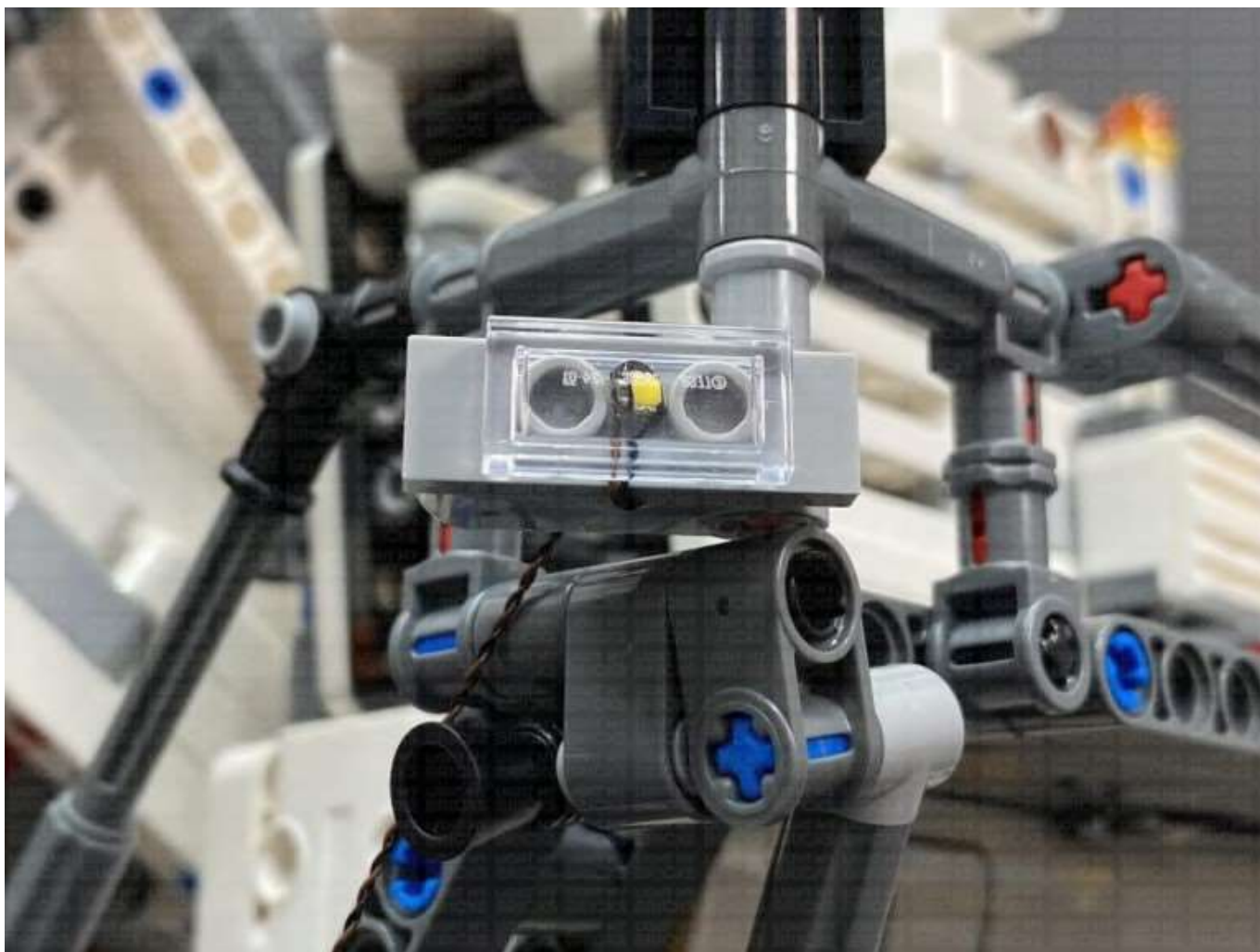
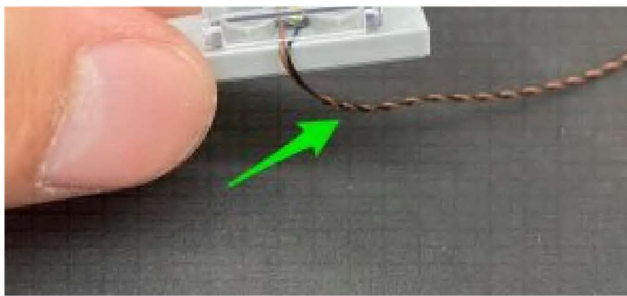
Disconnect the front spot light section and disassemble it as per below:



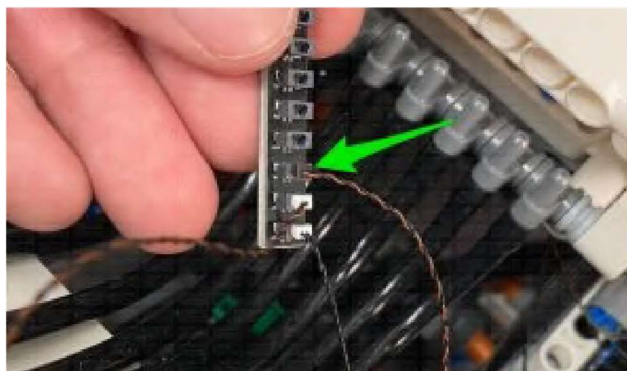
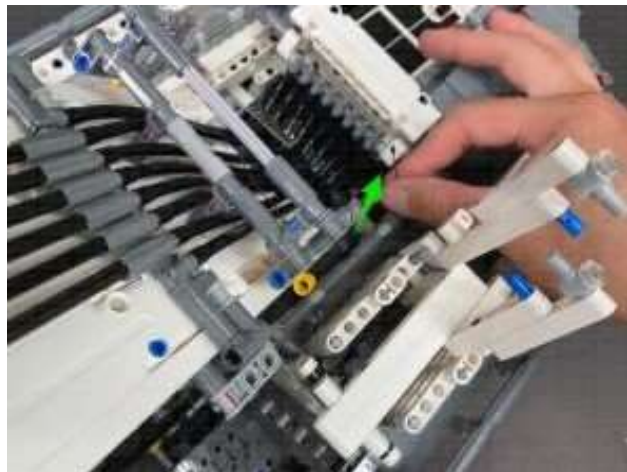


23.) Install a **White 30cm Bit Light** in between studs, then fold the cable underneath the light grey plate. Thread the cable through the right technic brick hole before reconnecting it back to the excavator.





Thread the cable through the railing behind, then down the stairs. Thread it through the front and then pull it out from the top to then connect to the 8port expansion board as shown below.



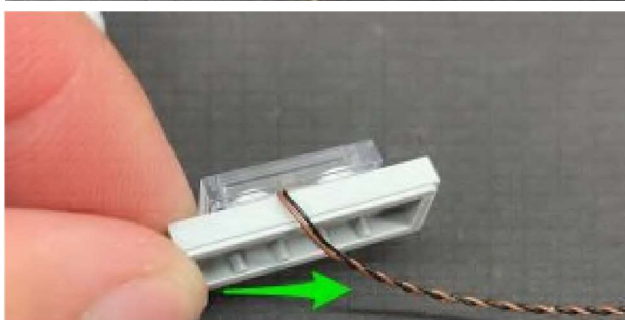


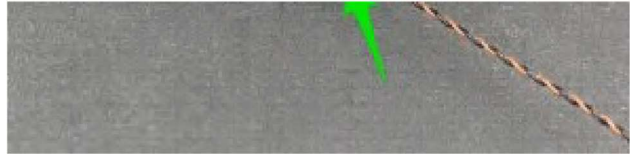
Turn the Battery Pack ON to test the light is working OK.



Note: 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, expansion board or effects board). To correct any issues with expansion board ports, please view the section addressing expansion board issues on our **[online troubleshooting guide](#)**.

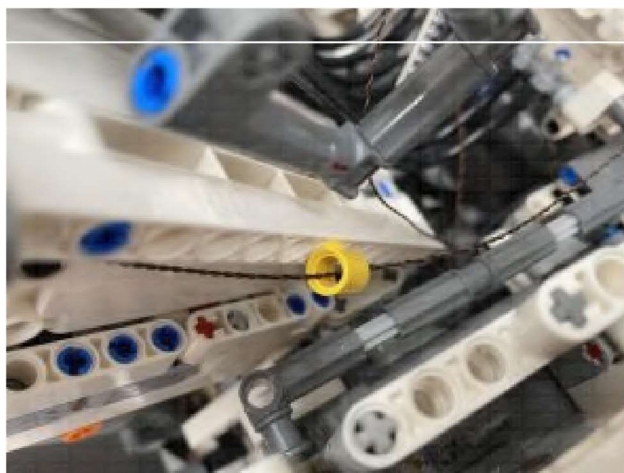
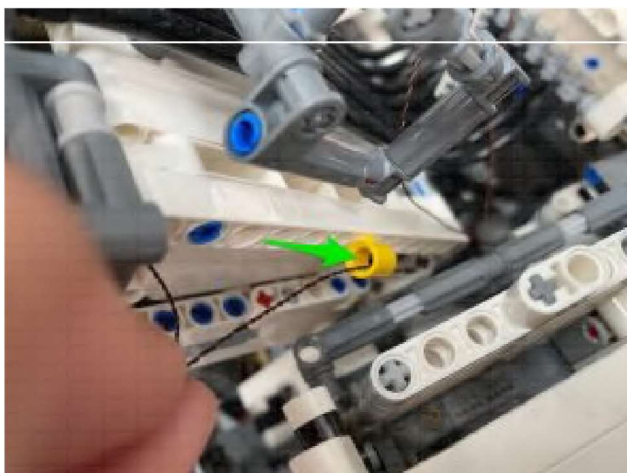
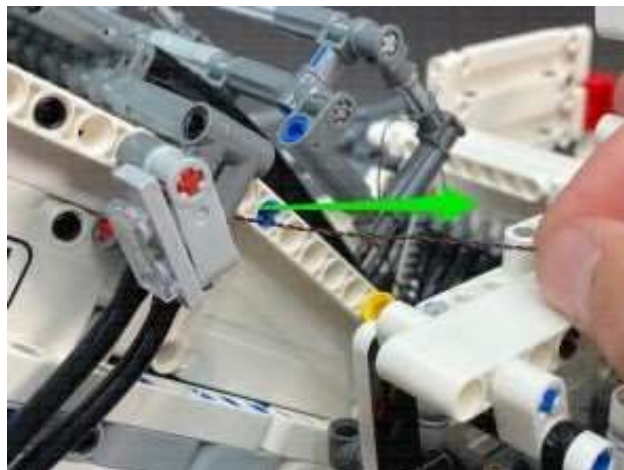
24.) Disconnect the light piece above and install another **White 30cm Bit Light** to it, the same way we did in the previous step.





Reconnect the light piece, then thread the cable behind in between white and dark grey pieces. Pull it out from behind, then thread it through the yellow hole.

Pull the cable all the way out, then connect it to the 8-Port Expansion Board. Turn the Battery Pack ON to test the light is working OK.



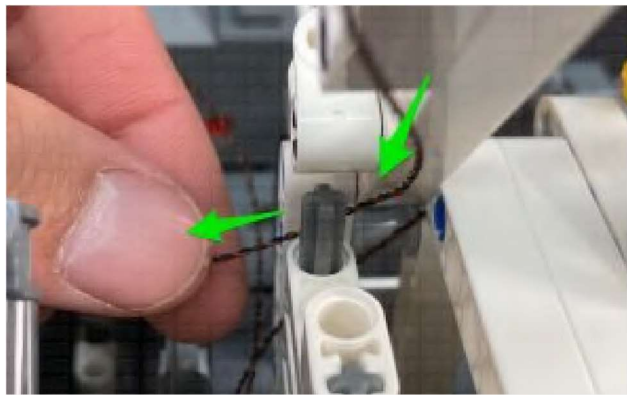
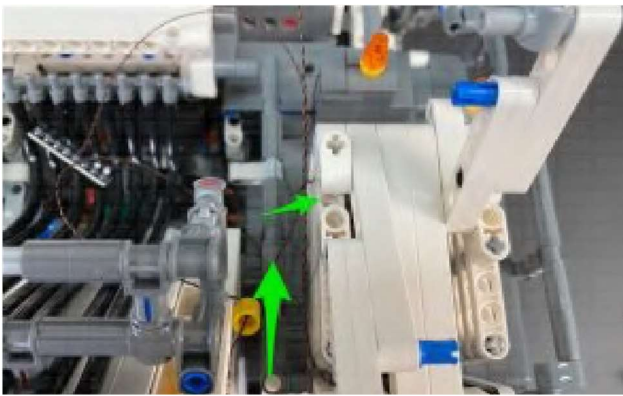
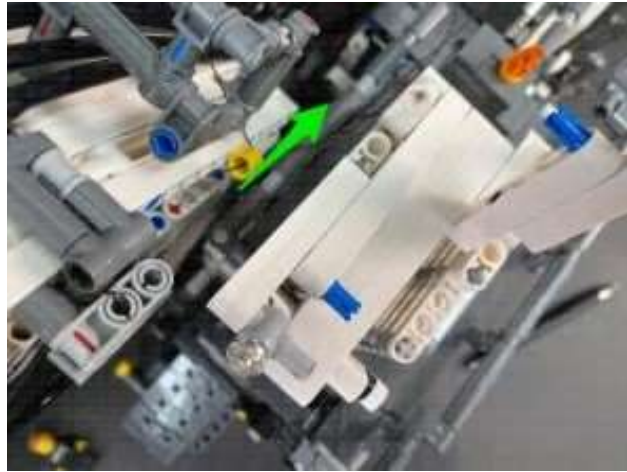
25.) Fold down the left side of the control compartment and disconnect the trans clear tile. Install another **White 30cm Bit Light** to this section, following the images below. Secure the light in place using a provided

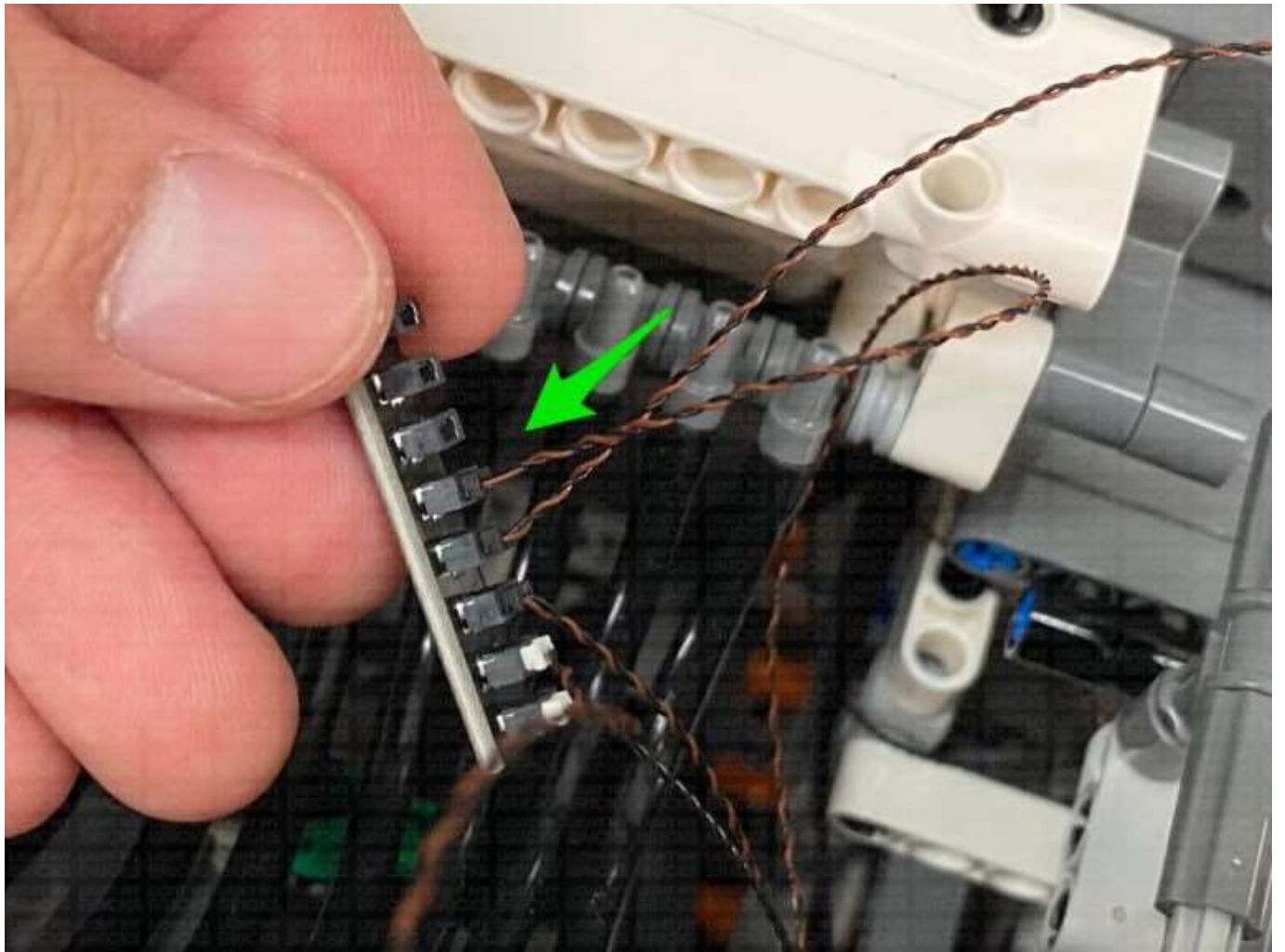
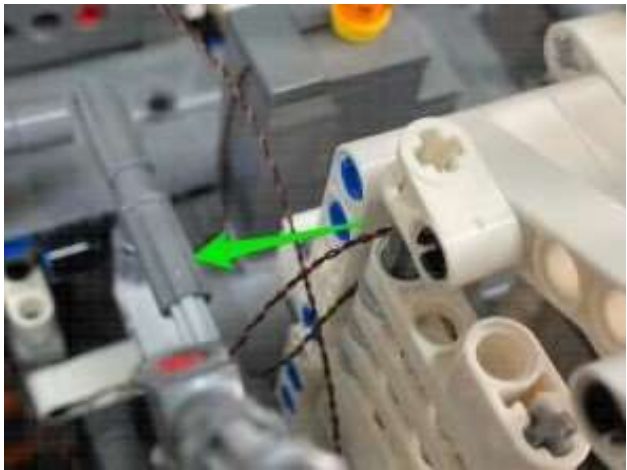
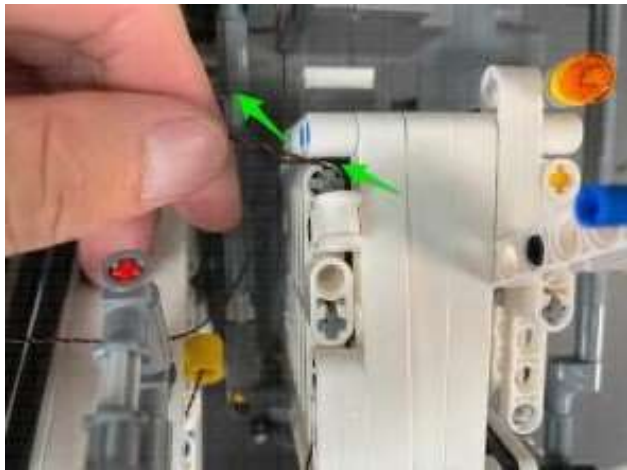
Round Plate 1x1

(Trans Clear)



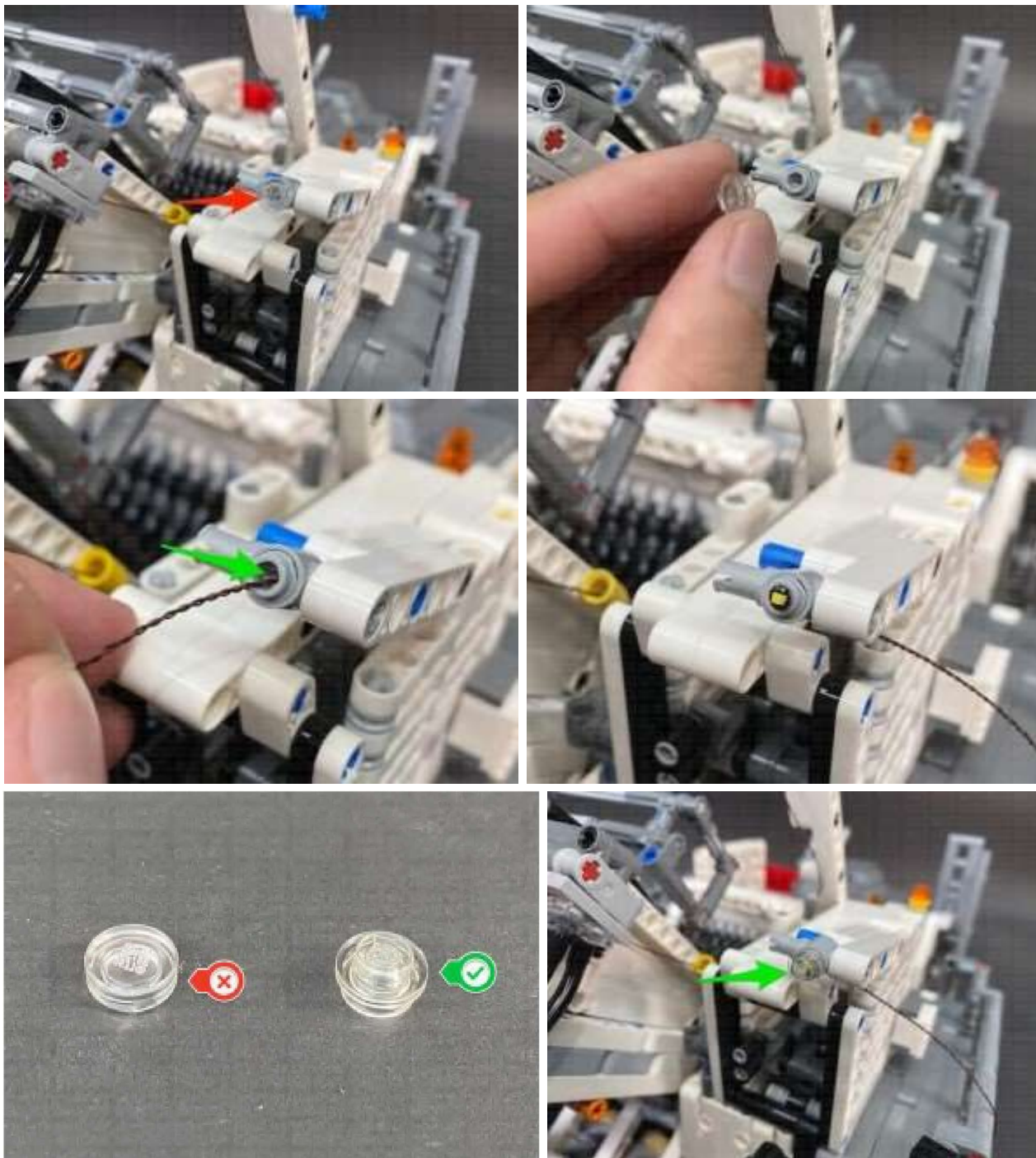
Thread the cable through the inside hole then pull it up toward the back. Secure the cable behind the technic axle pin, then connect the cable to the 8Port Expansion Board.



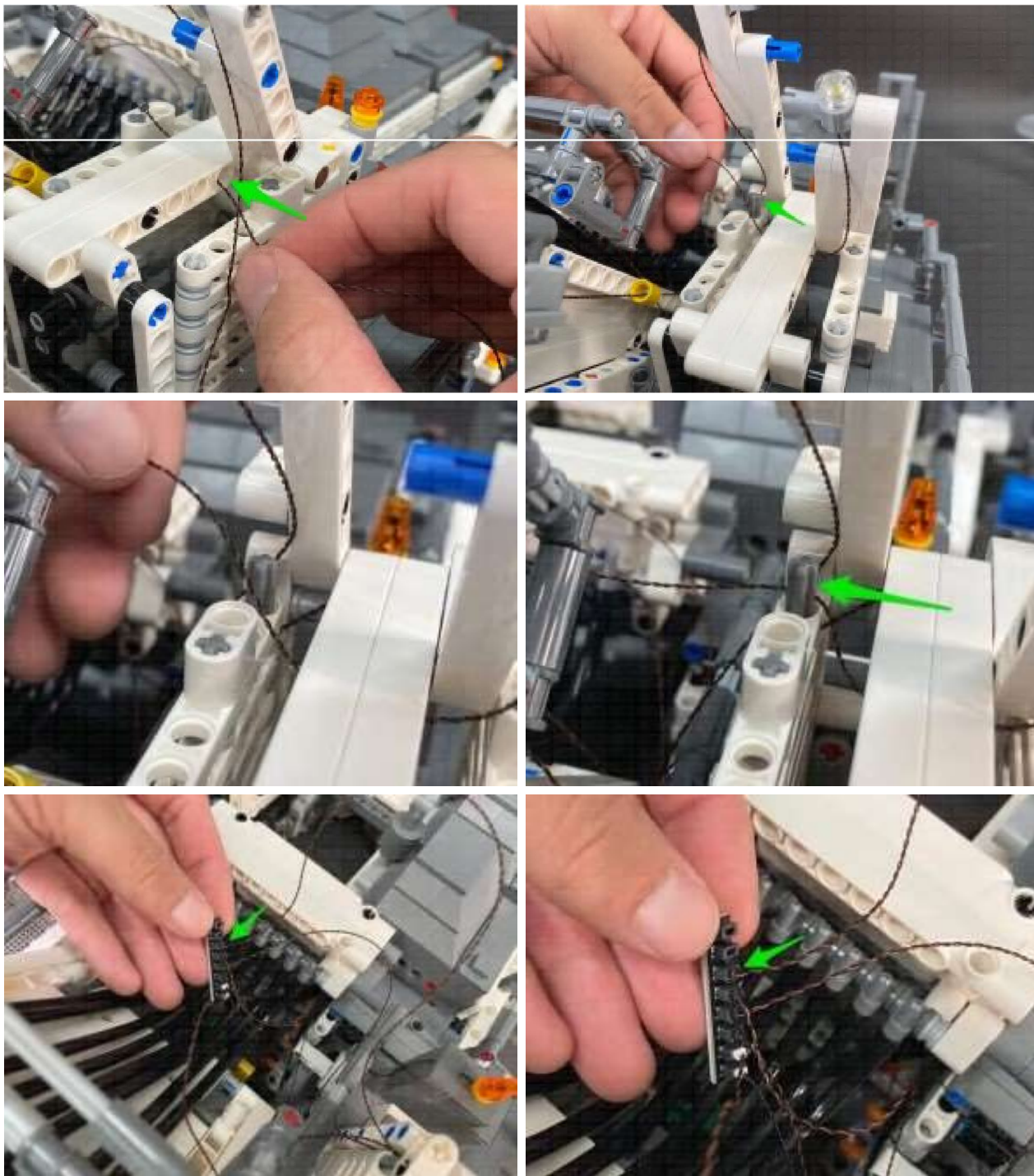


26.) Disconnect the trans clear round tile from the other side and install another **White 30cm Bit Light** to it, same way we did in the previous step.

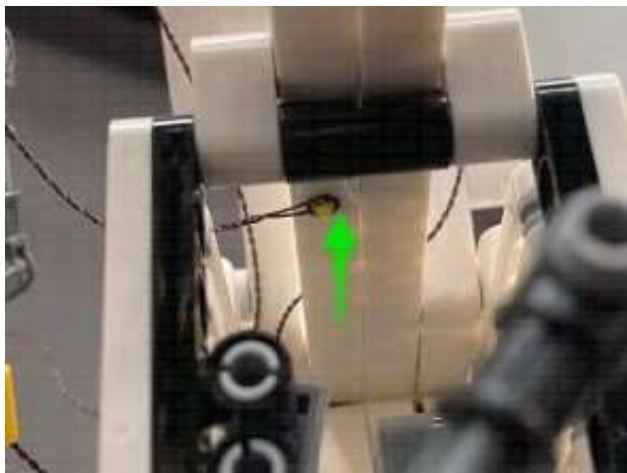
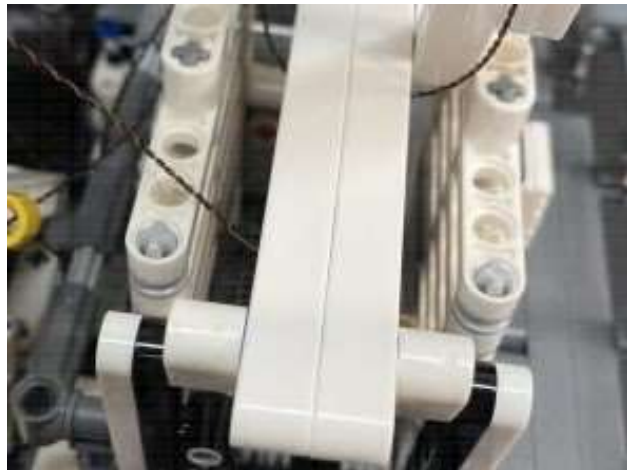
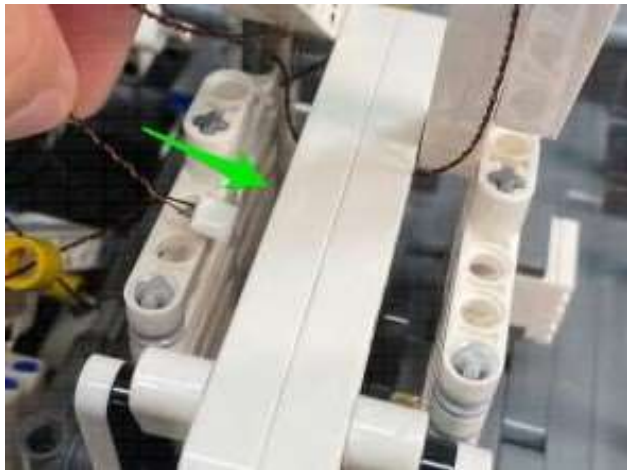
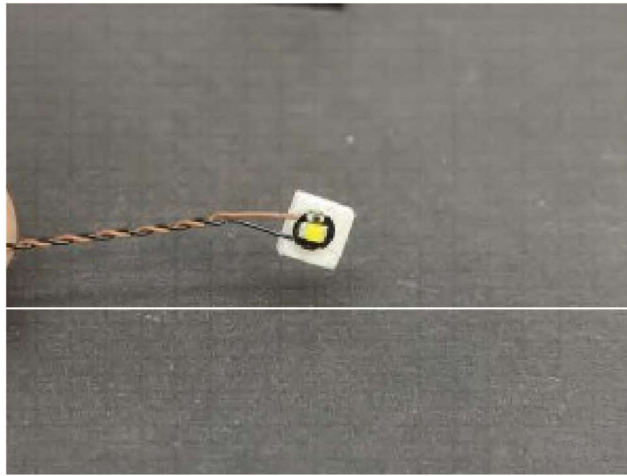
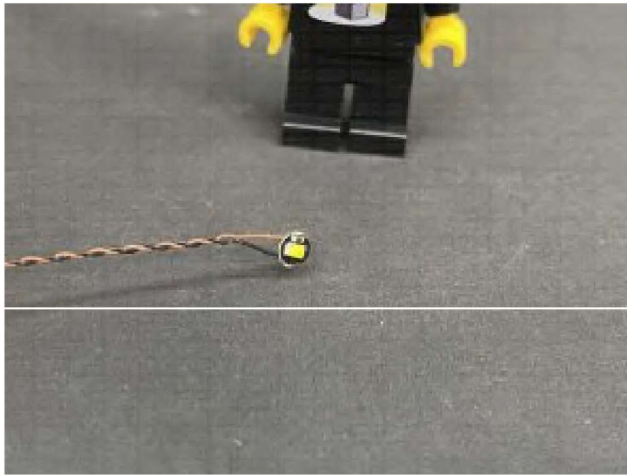
Secure it in place with another provided **Round Plate 1x1 (Trans Clear)**



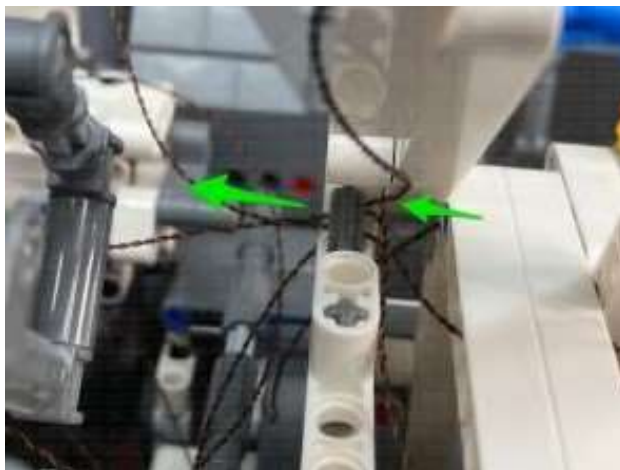
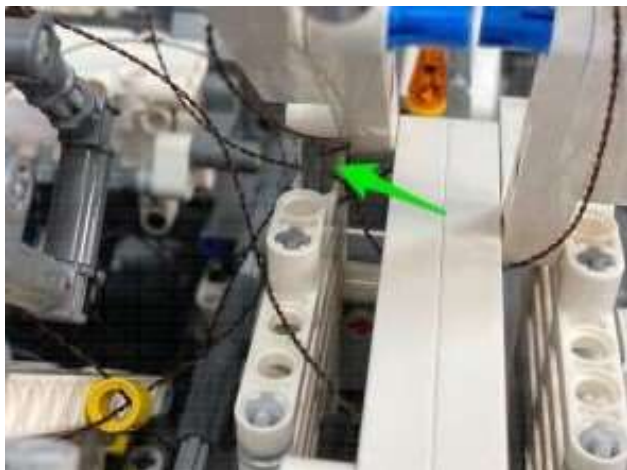
Thread the cable through the following hole in the centre, then pull it out from the other side and secure it behind the technic axle pin. Connect the bit light to a spare port on the 8-Port Expansion Board.

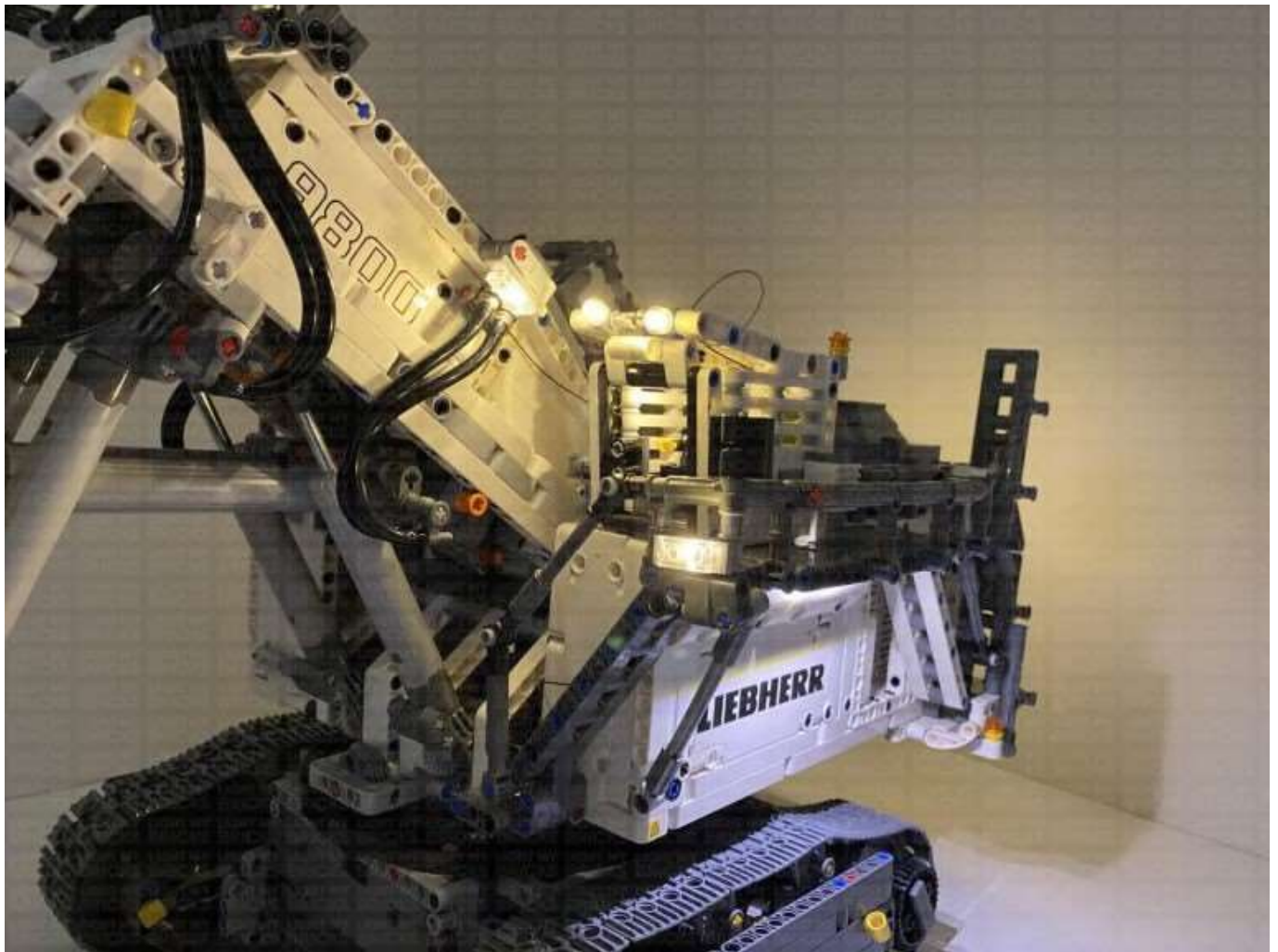
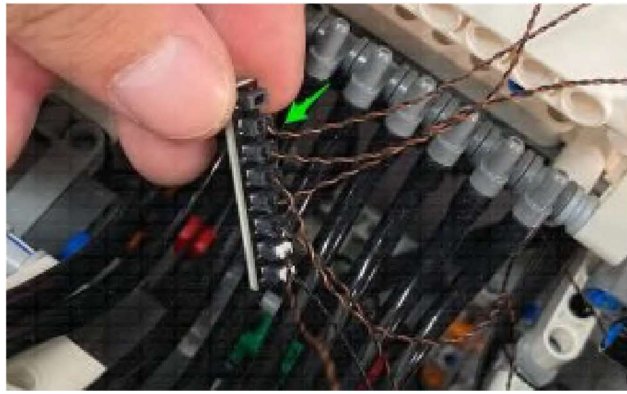
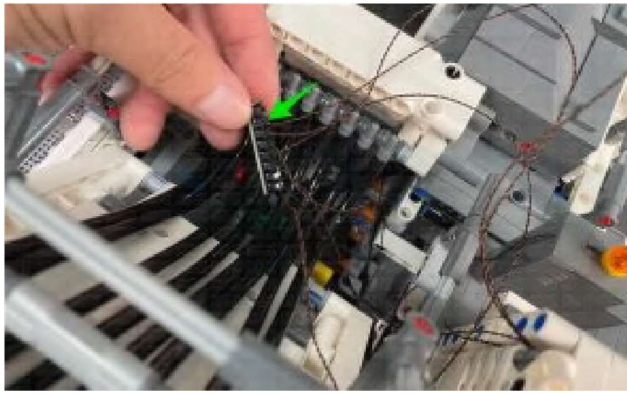


27.) Stick a new **White 30cm Bit Light** to an **Adhesive Square**. Thread the Bit Light (LED end) underneath the control compartment roof and mount it underneath in the following position.



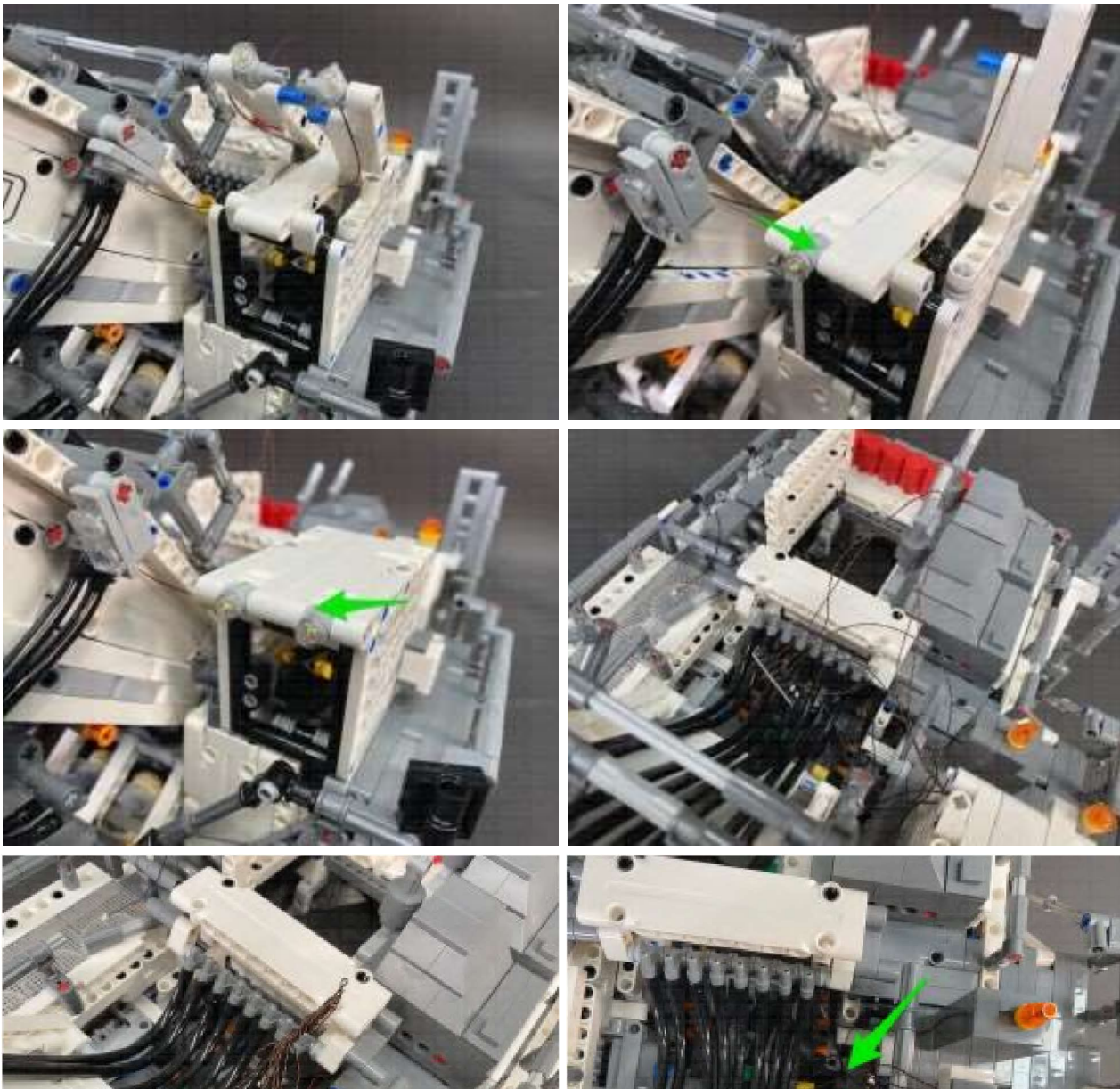
Thread the cable behind the same technic axle pin we threaded the other cables behind, then connect it to the 8-port expansion board. Turn the Battery Pack ON to test all the lights installed so far are working OK.





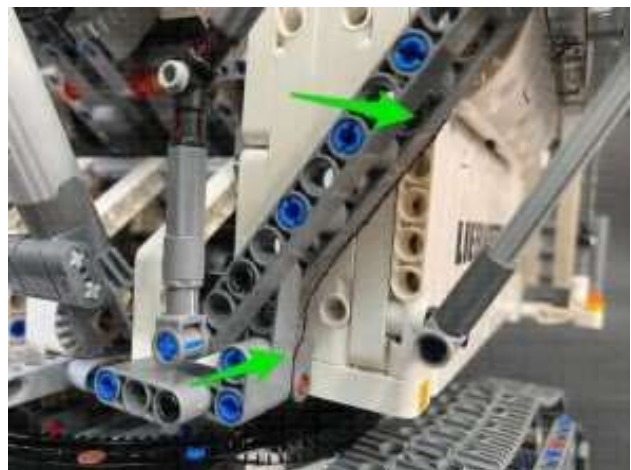
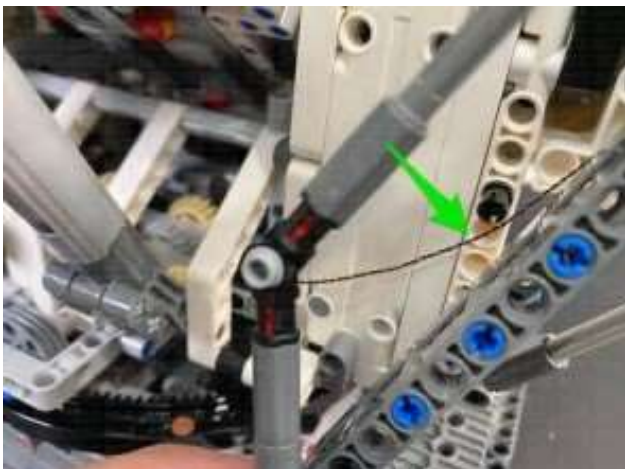
Note: If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light, expansion board or effects board). To correct any issues with expansion board ports, please view the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

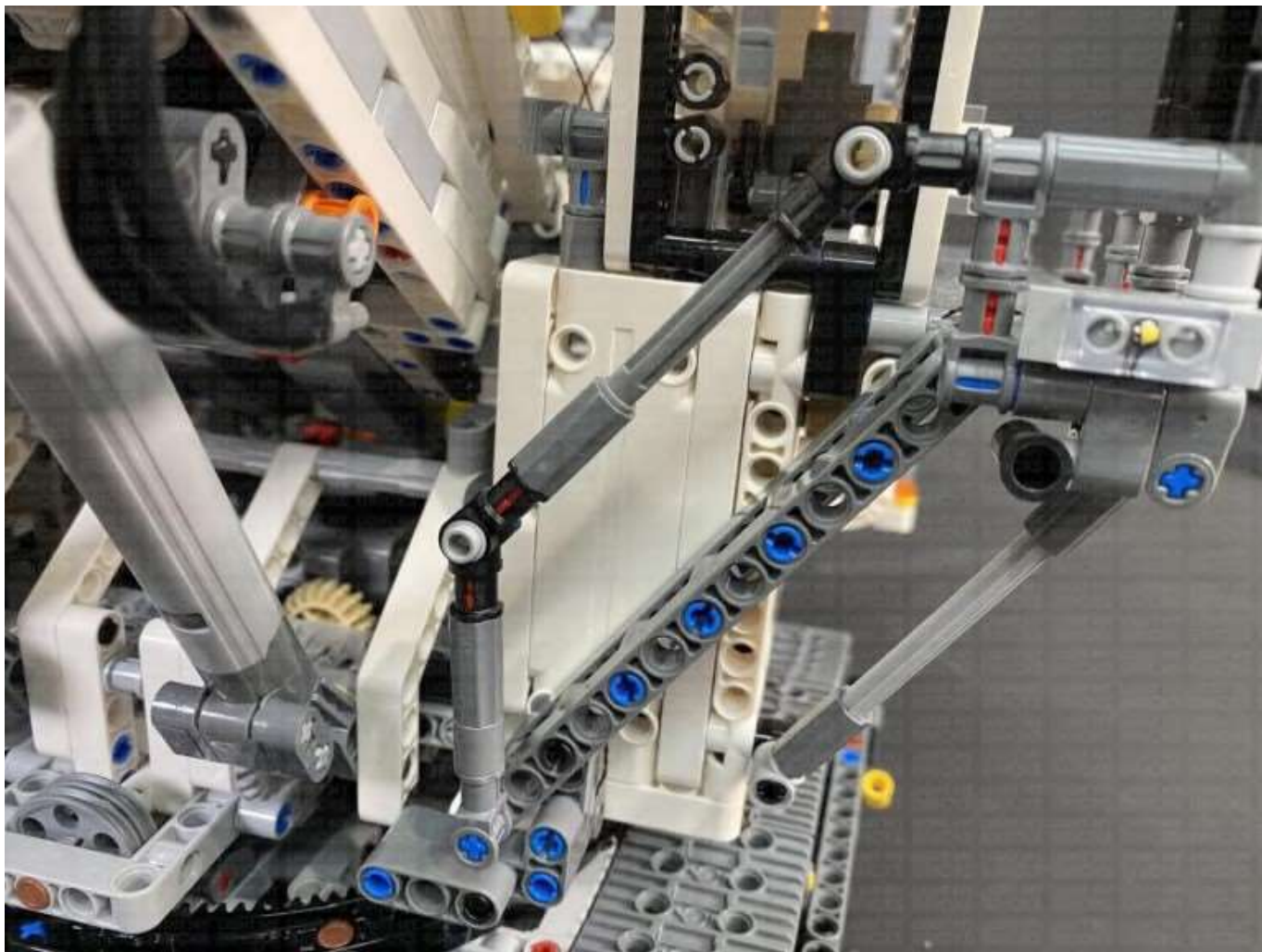
28.) Reconnect the roof sections, then neaten up cabling on the top by twisting and folding them into a neat bunch. Neatly tuck the components inside the space where all the cable tubes are as shown below.



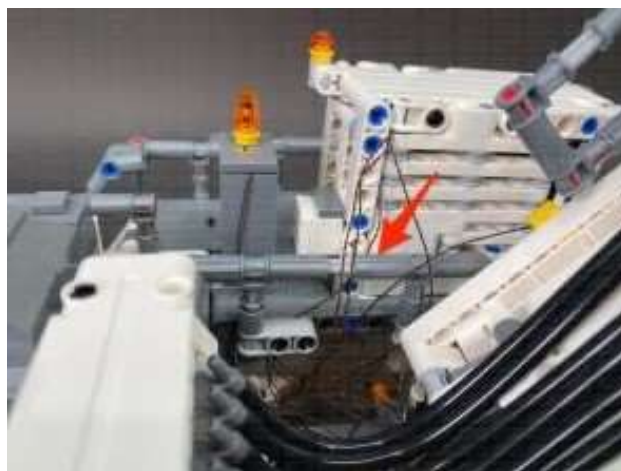
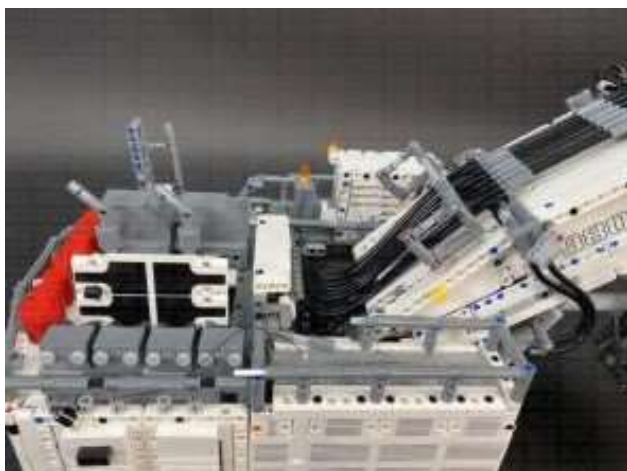


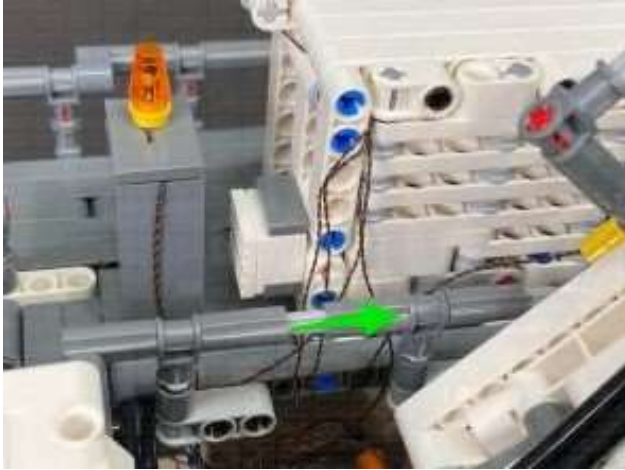
Hide the cable going down the stairs by disconnecting sections and securing the cables underneath technic pins. Reconnect sections.



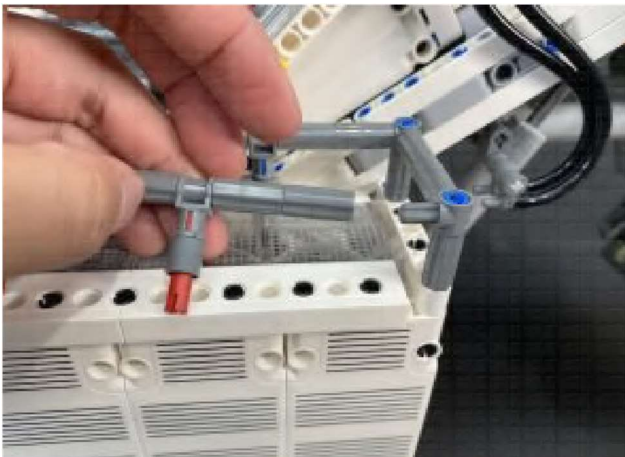


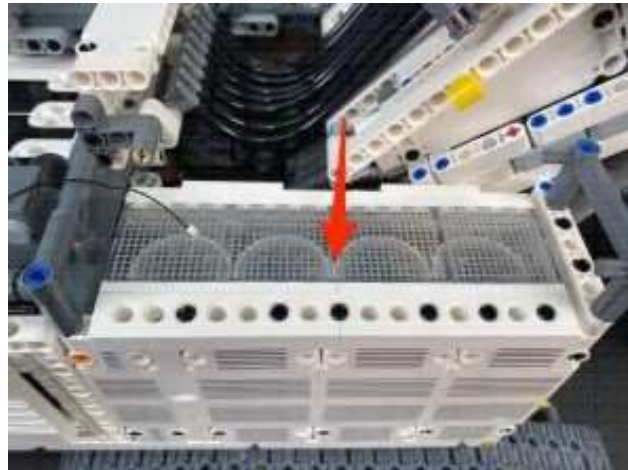
Turn the excavator over to the right side, then disconnect the following rail section and tuck in all the cables outside the control compartment.





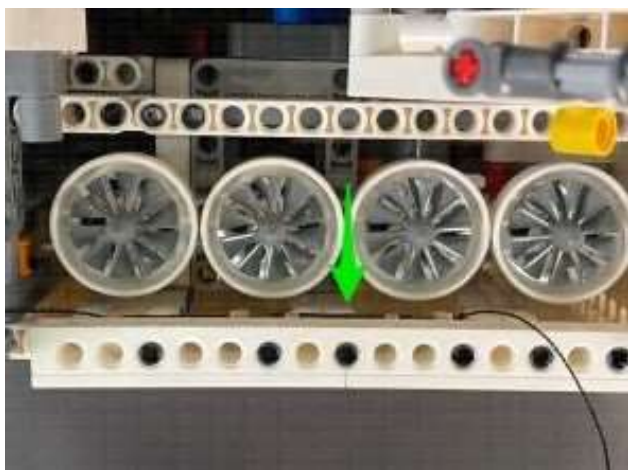
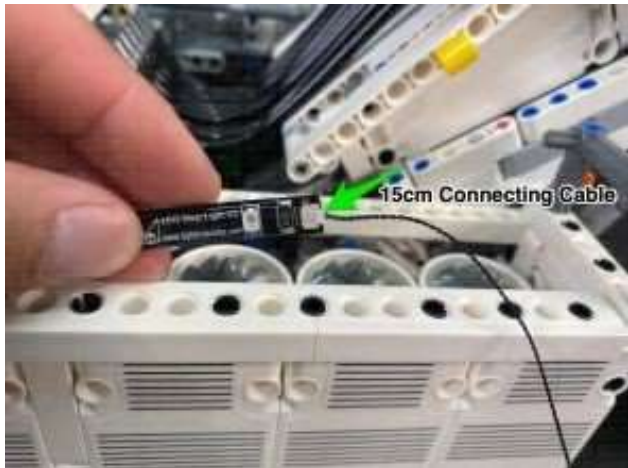
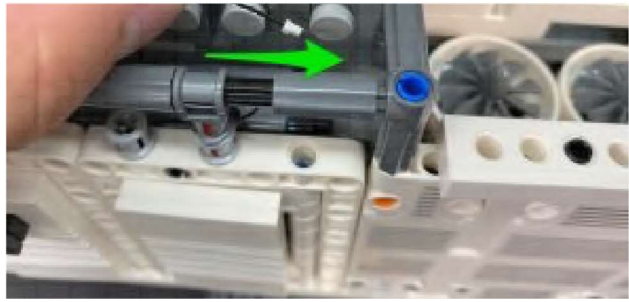
29.) Disconnect the two rail sections as well as the trans clear covering.





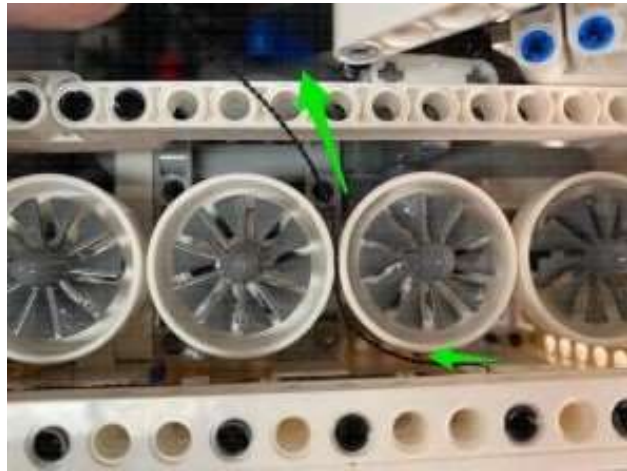
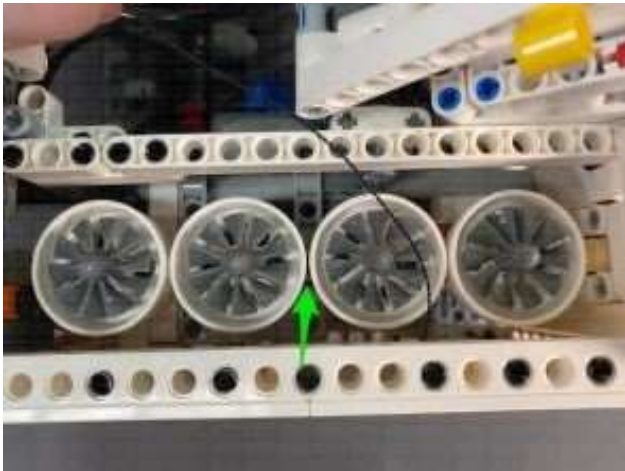
Locate the spare 30cm Connecting Cable on this side and thread it through the railing. Connect the cable to a **Red Strip Light**. Take a **15cm Connecting Cable** and connect it to the other port, then with it's adhesive backing, stick the Strip Light inside the exterior wall (strip light facing in) as shown below.

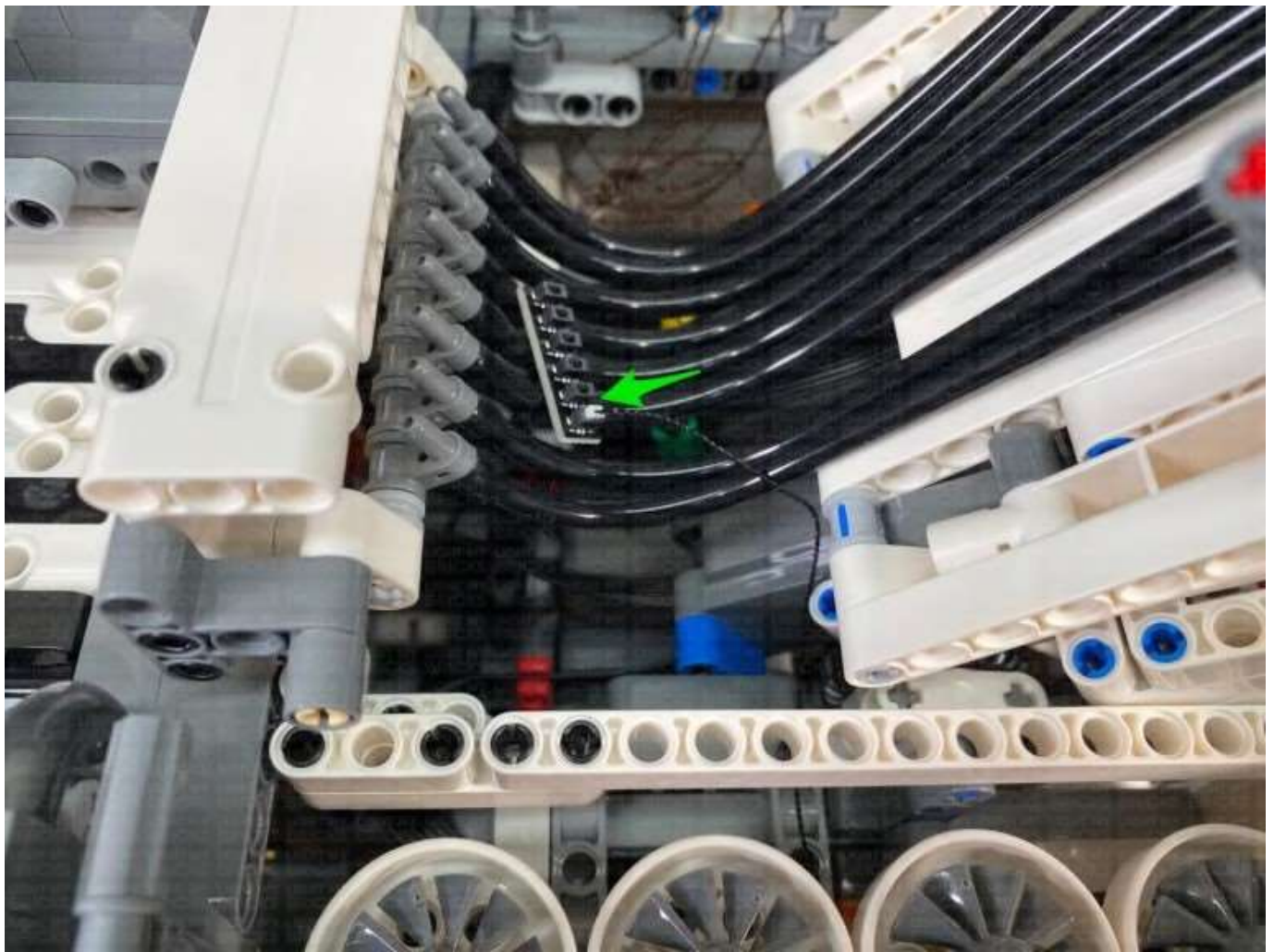




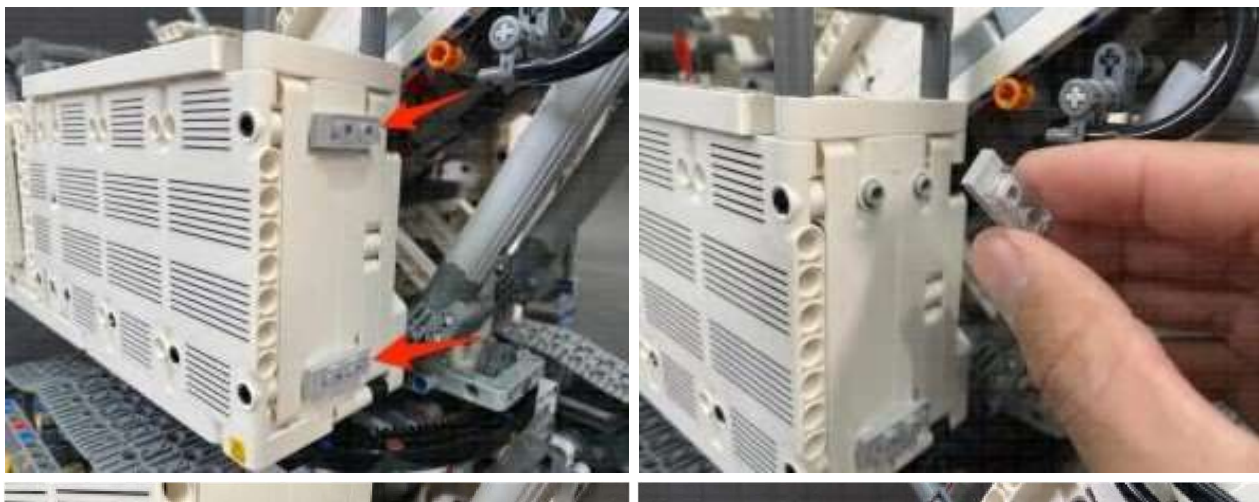
30.) Thread the cable through the centre of the engine barrels, then underneath the white long horizontal technic brick. Connect it to a new **6-Port**

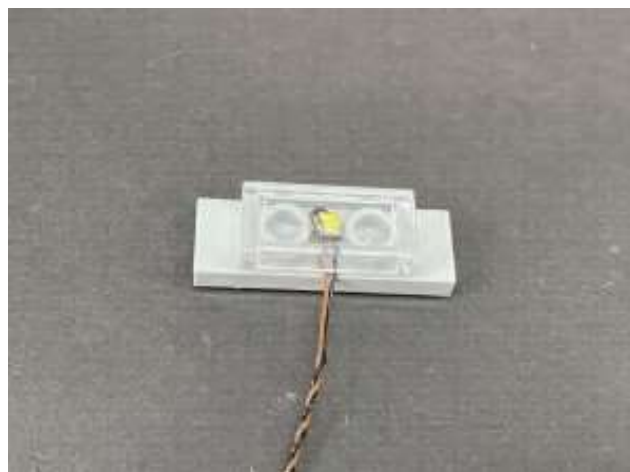
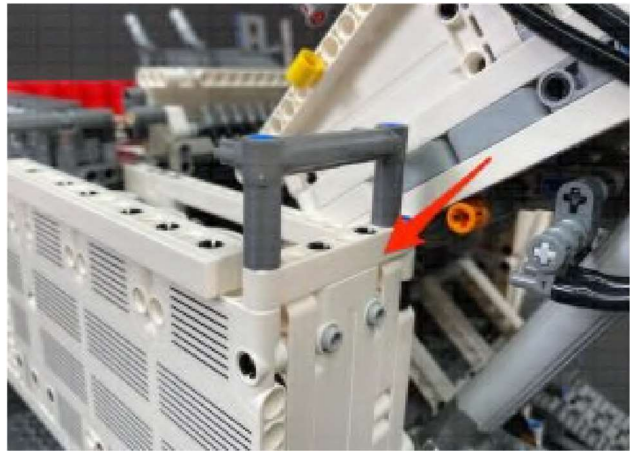
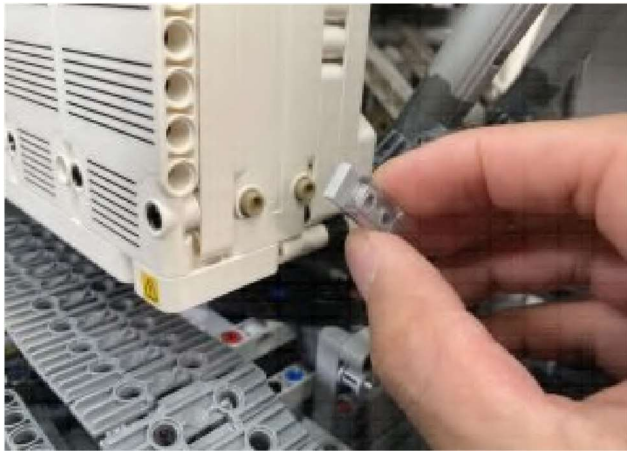
Expansion Board

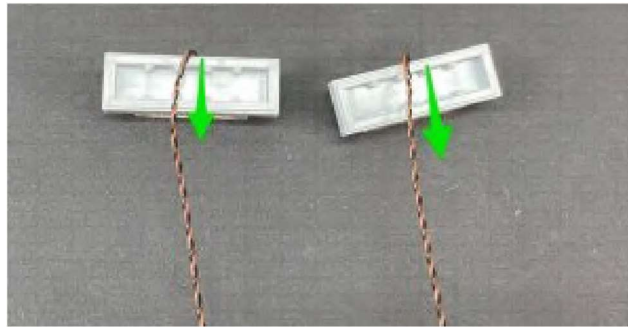
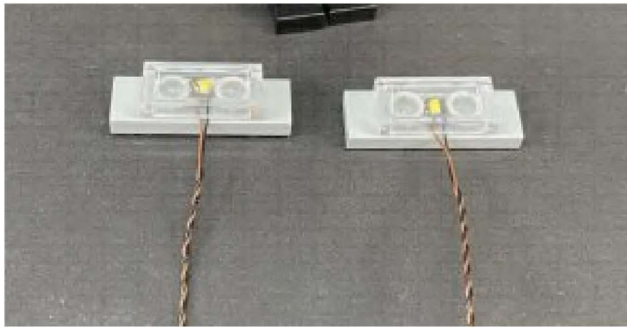




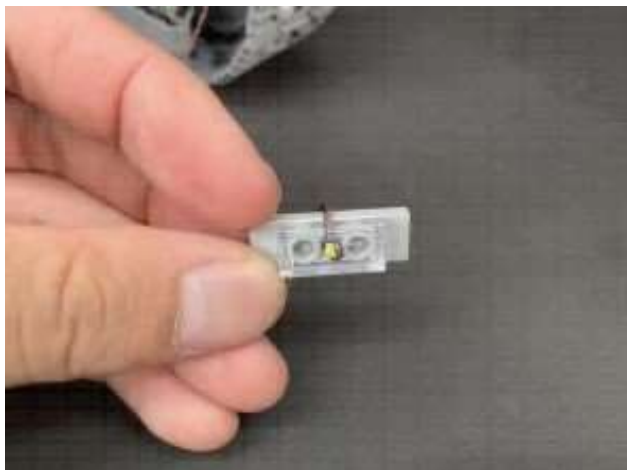
31.) Disconnect the two light sections from the front left of the excavator as well as the section above. Disassemble and install **2x White 30cm Bit Lights** to the light sections as shown below.

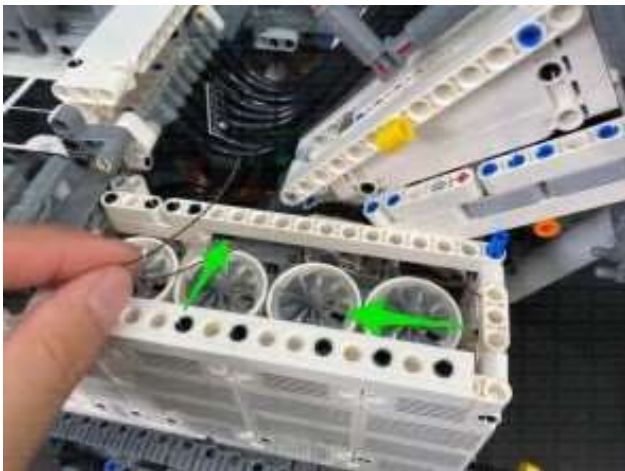




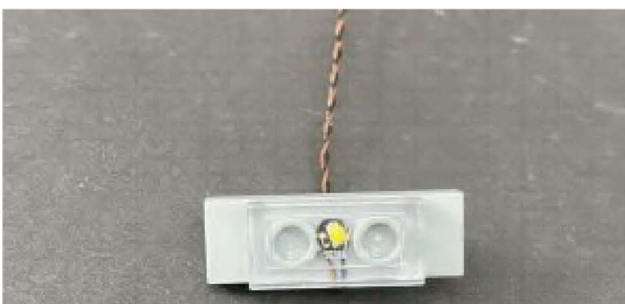


Reconnect one of the light sections to the bottom half ensuring the cable is facing down, then bring the cable up and thread it in between the technic pieces to the inside of the barrel section. Ensure the cable is laid underneath the light grey plate (bottom right corner) and then directly up the front panel. Thread the cable underneath the white long horizontal technic brick and connect it to the 6-Port Expansion Board.





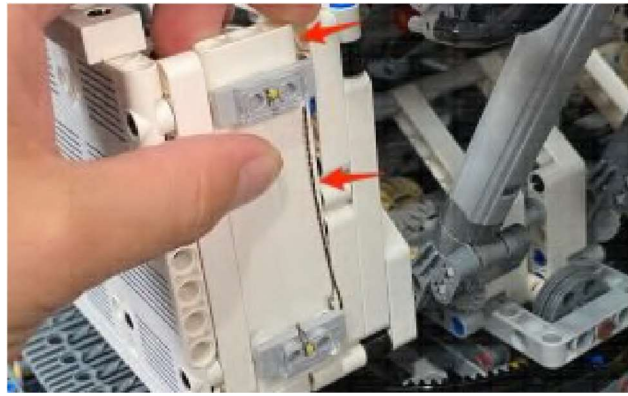
32.) Thread the Bit Light cable from the other light section through the following technic hole, then reconnect the light section to the front panel. Thread the cable underneath the white long horizontal technic brick and connect it to the 6-Port Expansion Board.



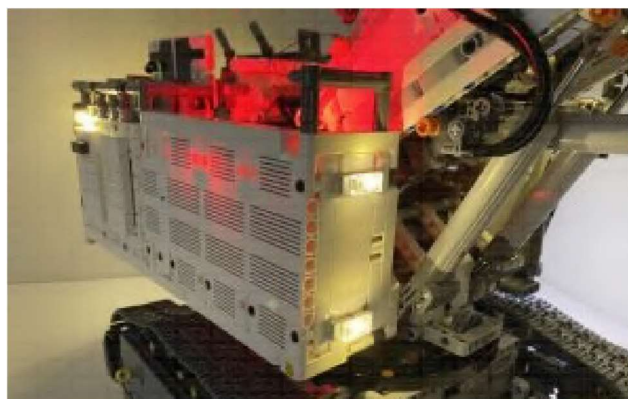
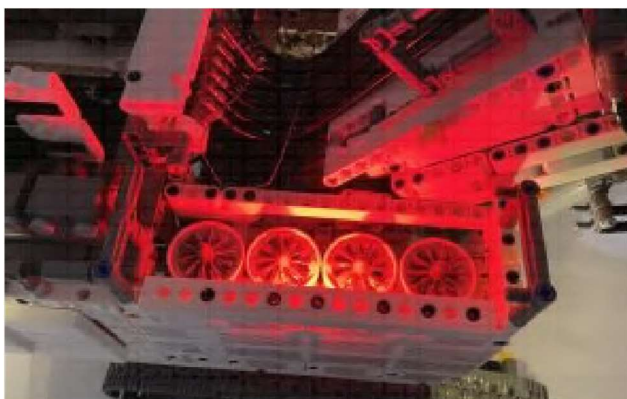


Hide the cable going up the front panel by slightly disconnecting the white panels and slipping the cable in between them. Reconnect the front rail section on top.





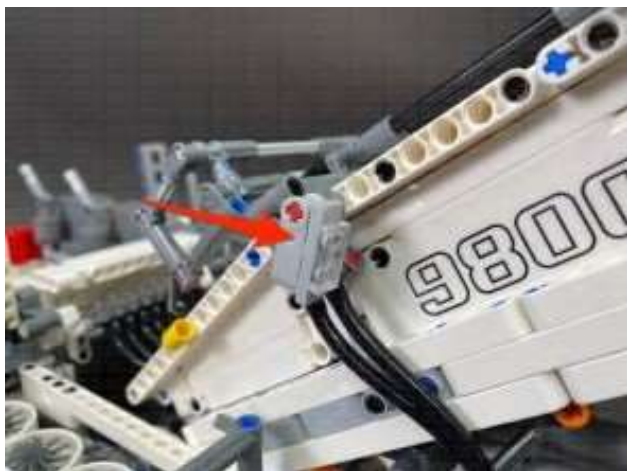
Turn the Battery Pack ON to test the red strip light and front lights are working OK.

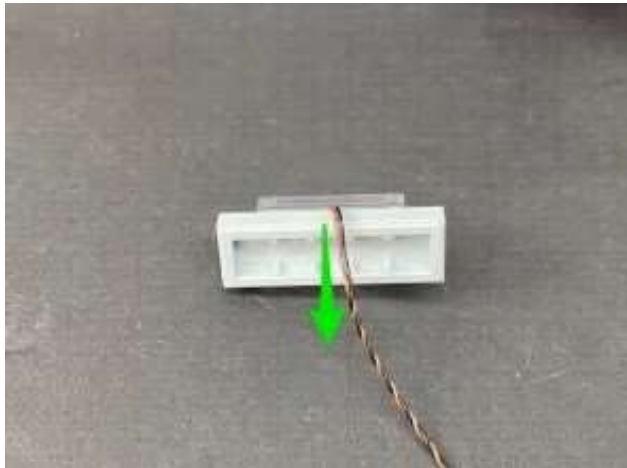
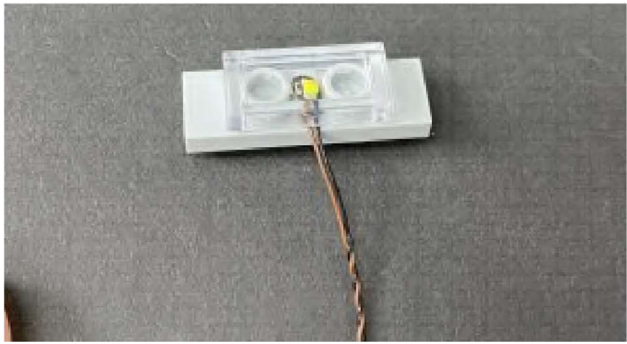
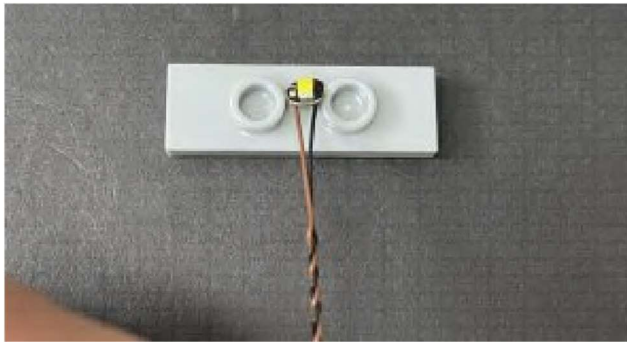




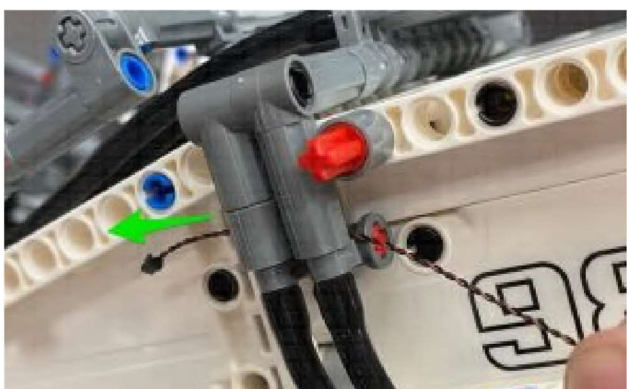
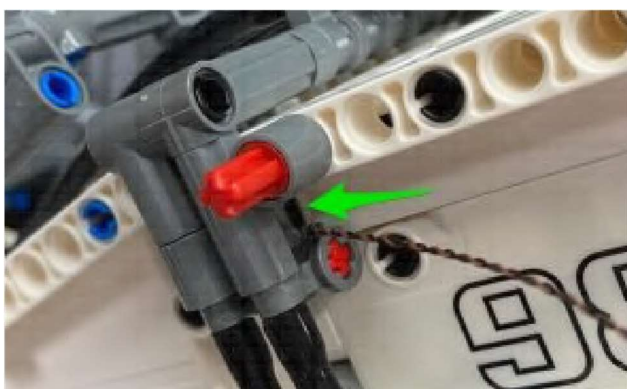
Note: If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light, expansion board or effects board). To correct any issues with expansion board ports, please view the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

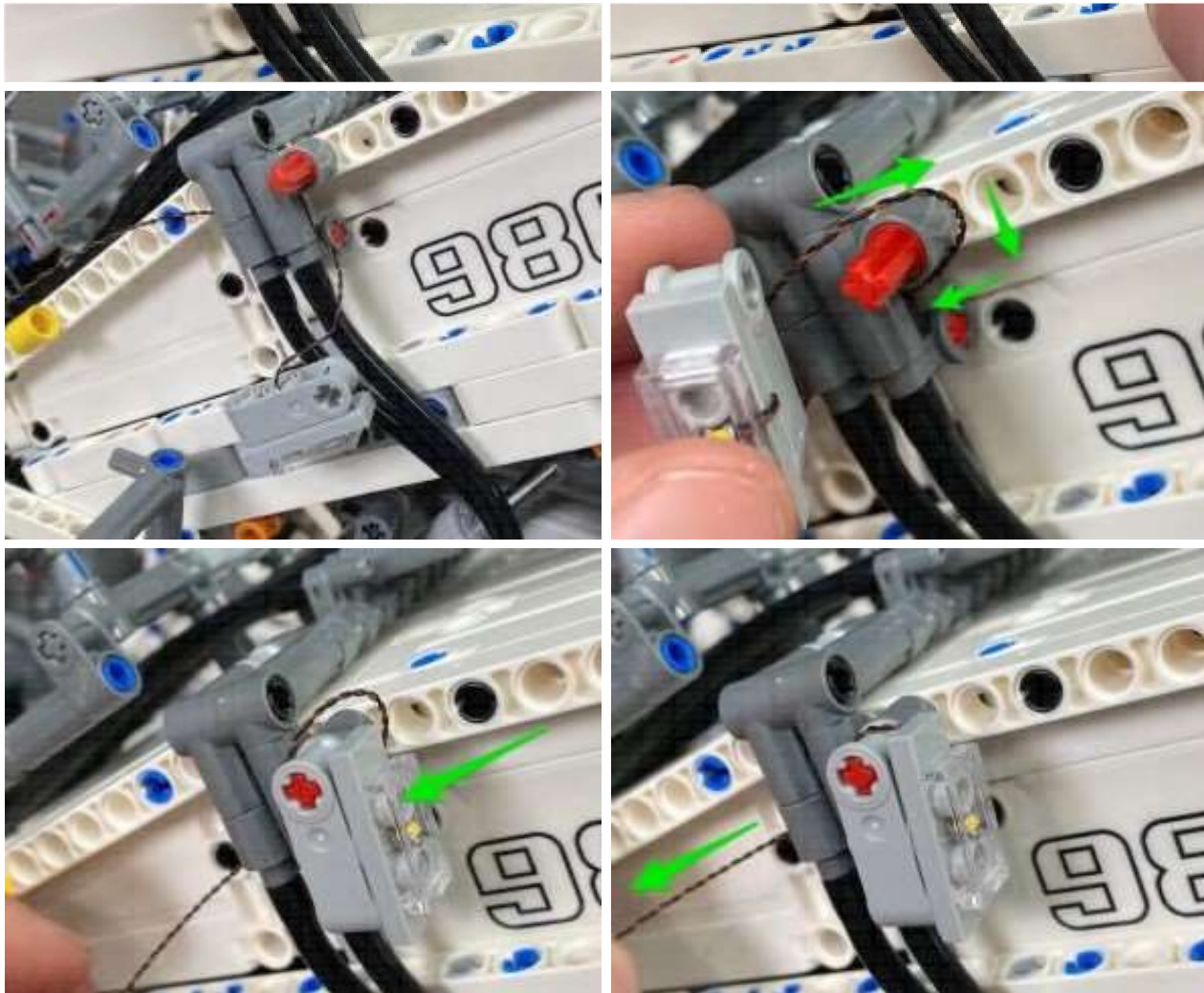
33.) Disconnect the following light piece, then follow the below images to disassemble and install the remaining **White 30cm Bit Light** to it.



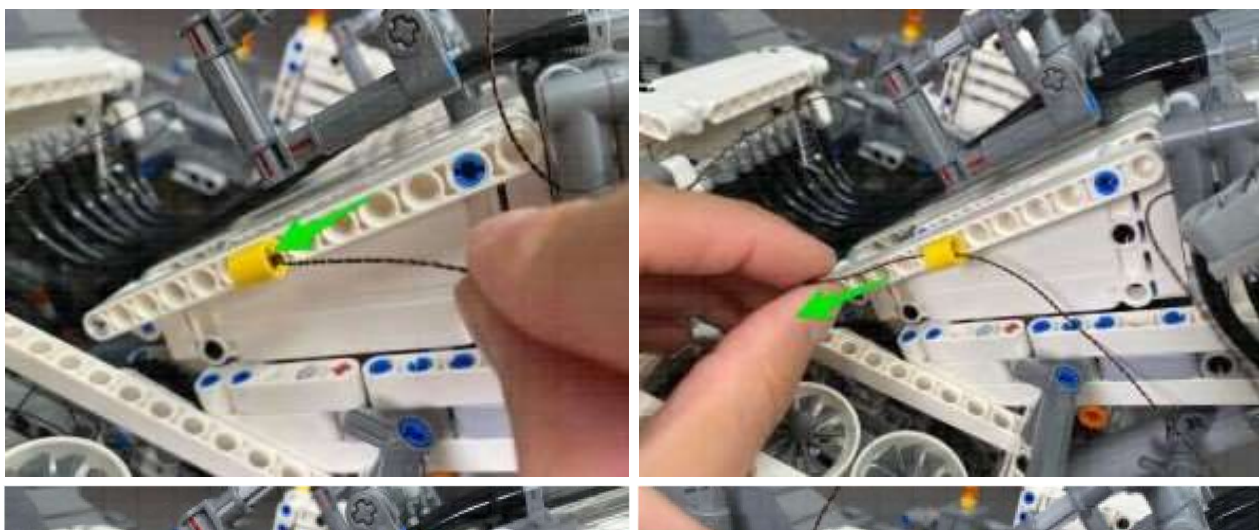


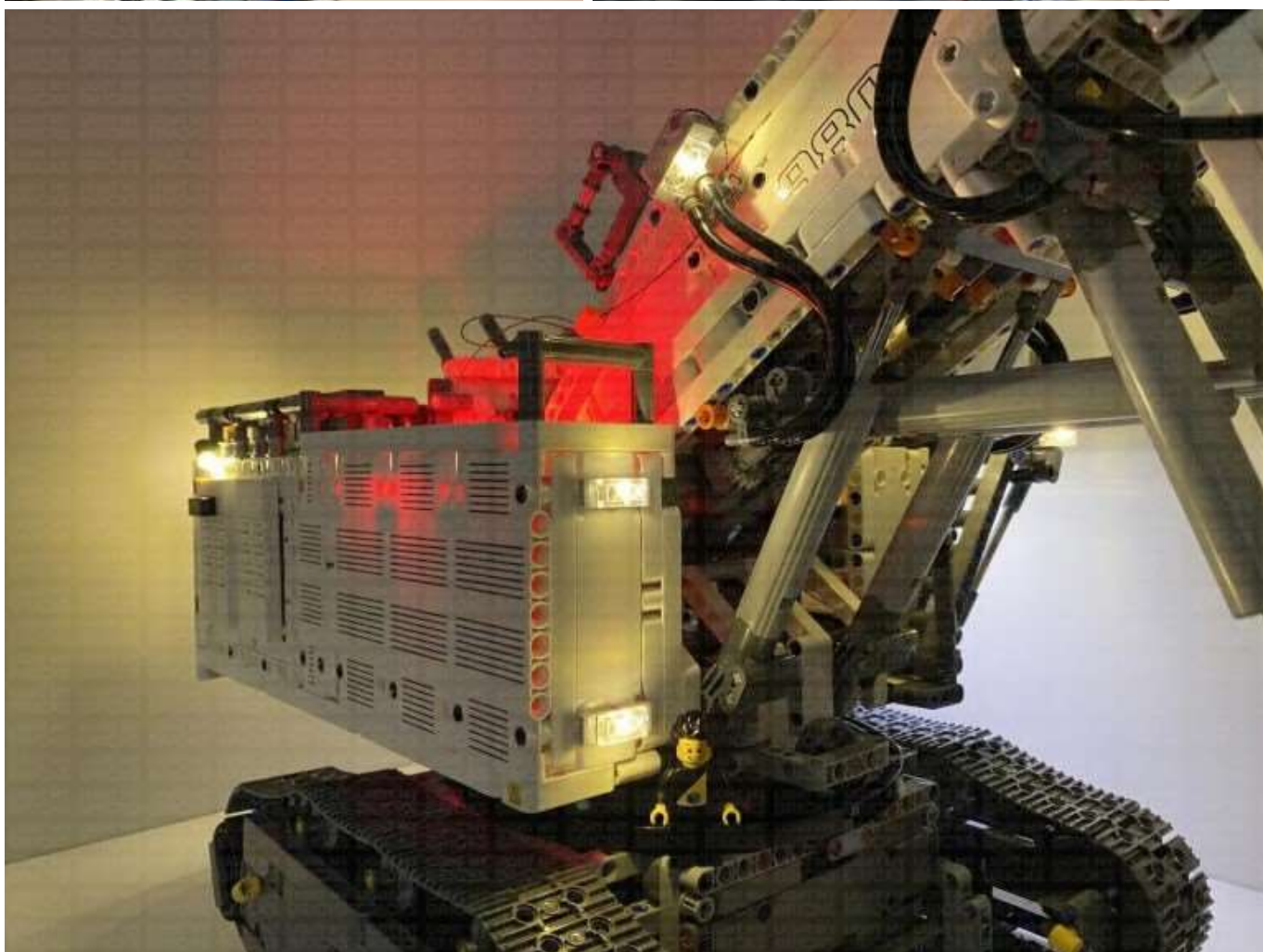
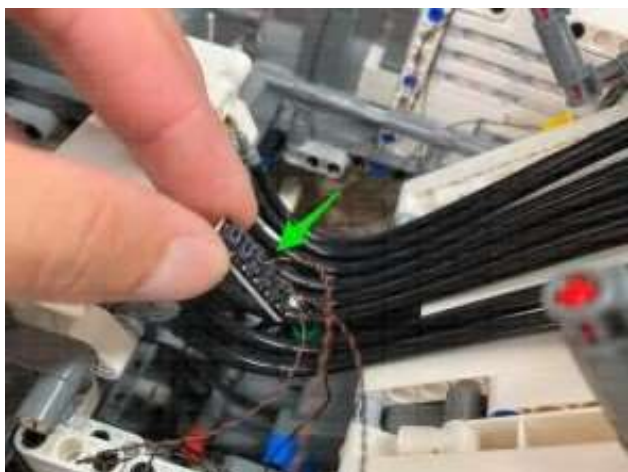
Thread the cable through the following space, then loop it around the red technic axle pin before reconnecting the light section. Pull the cable all the way out from behind.





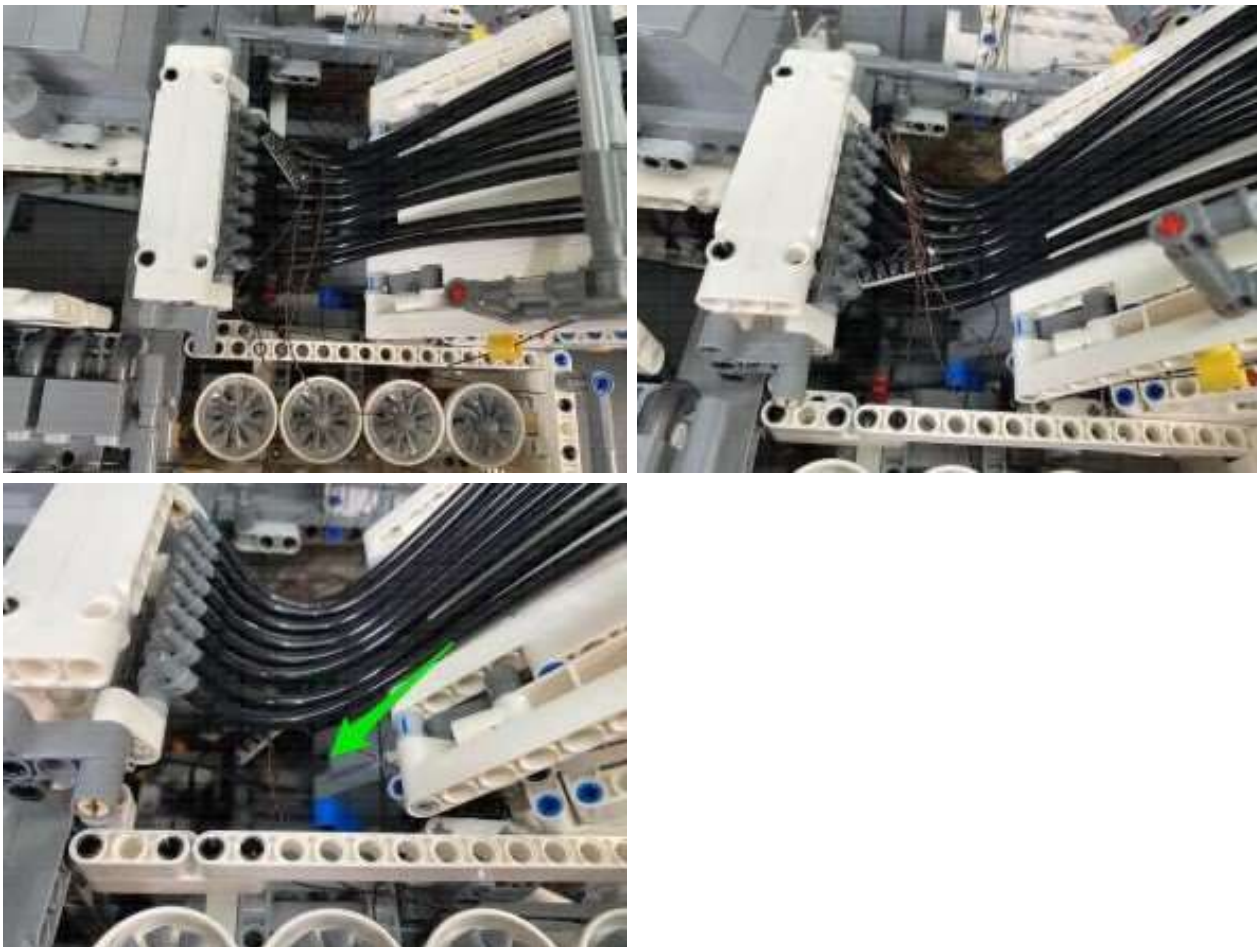
34.) Thread the cable through the following yellow piece hole, then connect it to the 6-Port Expansion Board. Turn the battery pack ON to test all the lights are working OK.





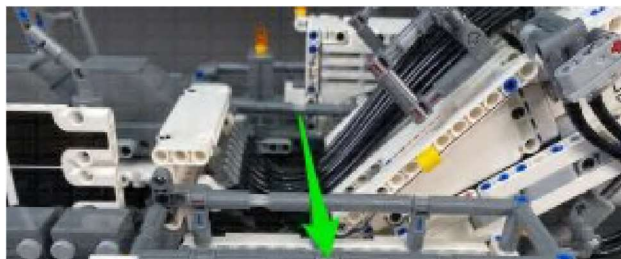
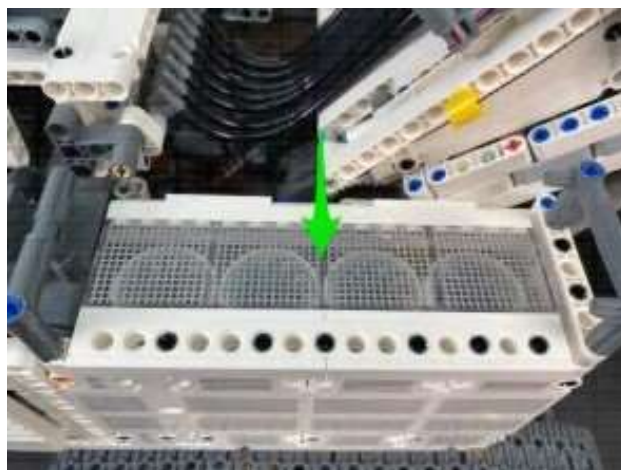
Note: If you experience any issues with the lights not working and suspect an issue with a component, please try a different port on the expansion board to verify where the fault lies (with the light, expansion board or effects board). To correct any issues with expansion board ports, please view the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

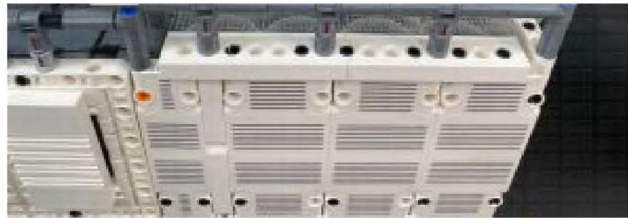
35.) Neaten up the cables by twisting and folding them into a neat bunch, then neatly tuck all the components inside the tube section to conceal all the components.





Reconnect sections we removed earlier.





This finally completes installation of the Light My Bricks Liebherr R 9800 42100 Light Kit.

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

