

ROUGH TERRAIN CRANE #42082 LED Lighting Kit

Package contents:

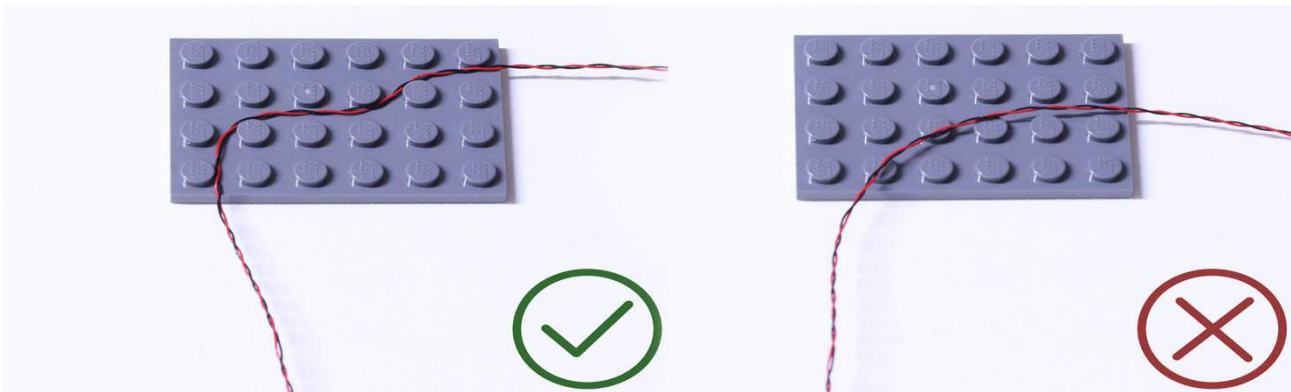
- 4 x 15cm Yellow Flashing Dot Lights
- 14 x 15cm Warm White Dot Light
- 2 x 30cm Warm White Dot Light
- 1 x Rotating Dot Light
- 1 x 50cm Connecting Cables
- 1 x 8-Port Expansion Board
- 2 x 12-Port Expansion Boards
- 1 x AAA Battery Pack
- 1 x LEGO Power Functions Cable

Extra LEGO Pieces

Note:

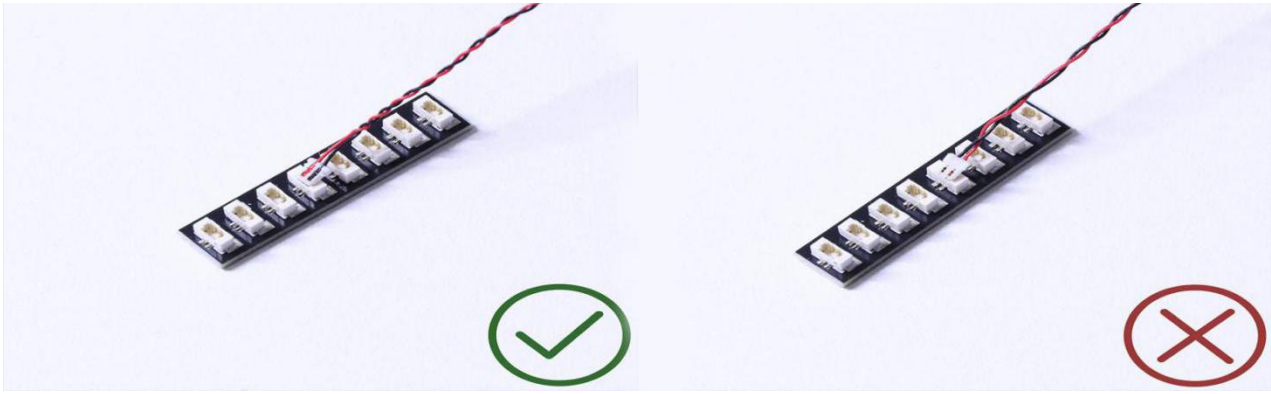
Place wires on the surface or under the LEGO building blocks.

The wire can be place between the building blocks or under the block, but they should be placed between the studs correctly.

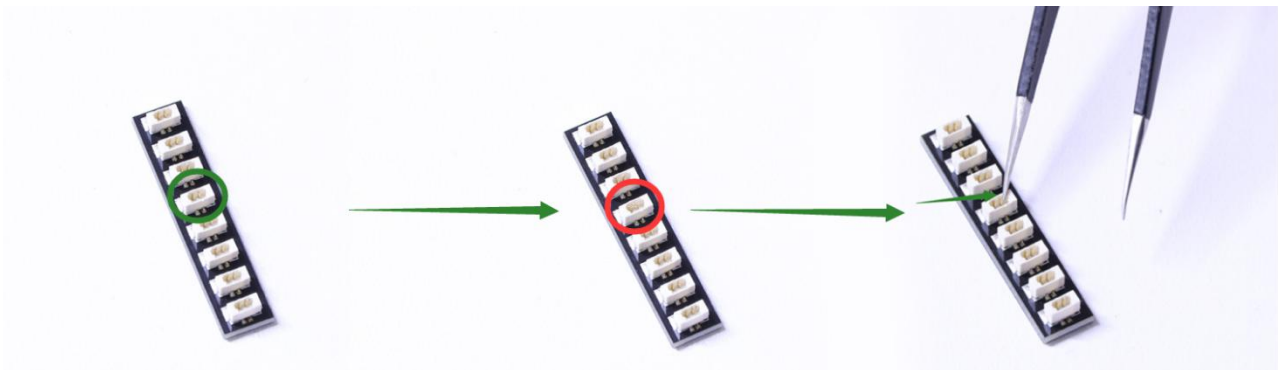


Insert the connectors to the ports.

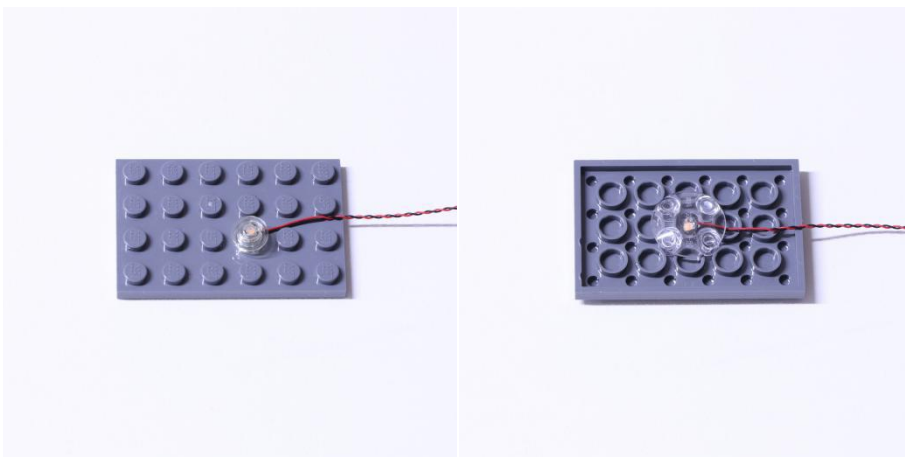
Be careful when you are operating, there's only one correct way to insert, make sure the expansion board is upward, find the soldered "=" sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the "=" sign and if you feel hard to insert, please stop, and don't force it, for that may result in bent pins inside the port or overheating of the expansion board.



At this point, use the tweezers to straighten the bent pins.

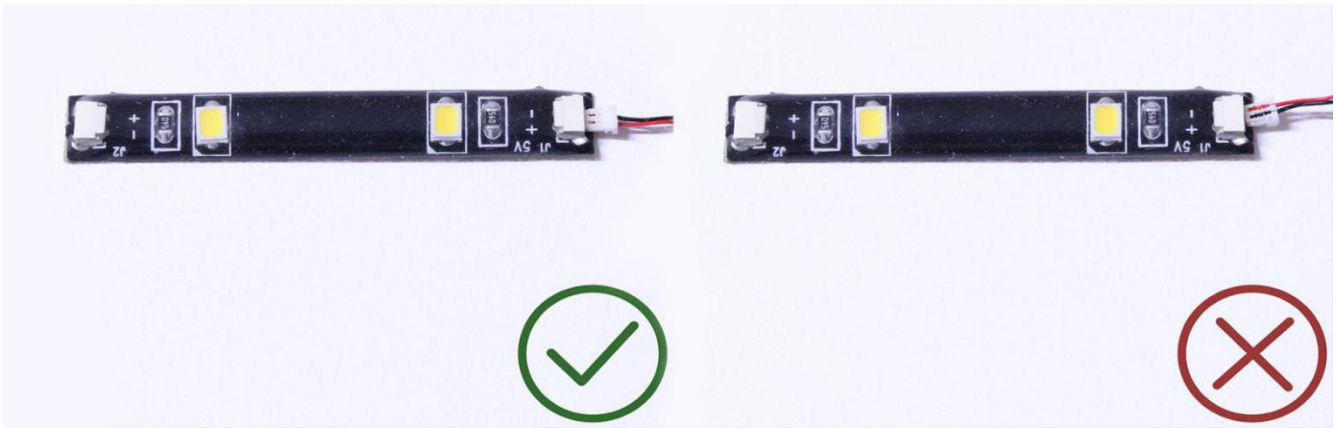


When installing dot lights, make sure they are correctly placed (Yellow LED package is exposed). You can put them either on the top of the studs or between studs.

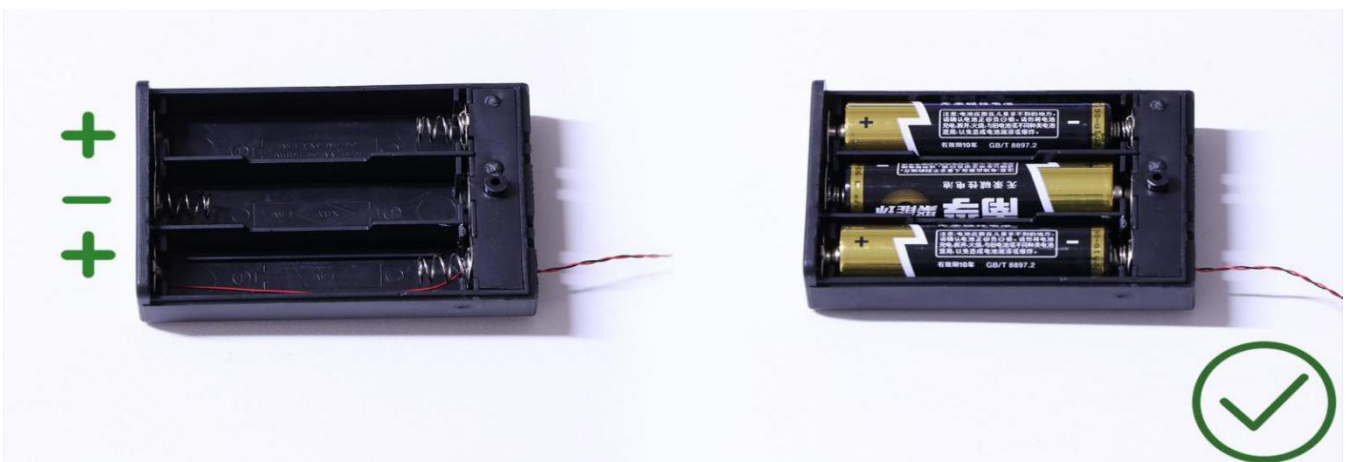


Connecting cable connectors to Strip Lights

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.



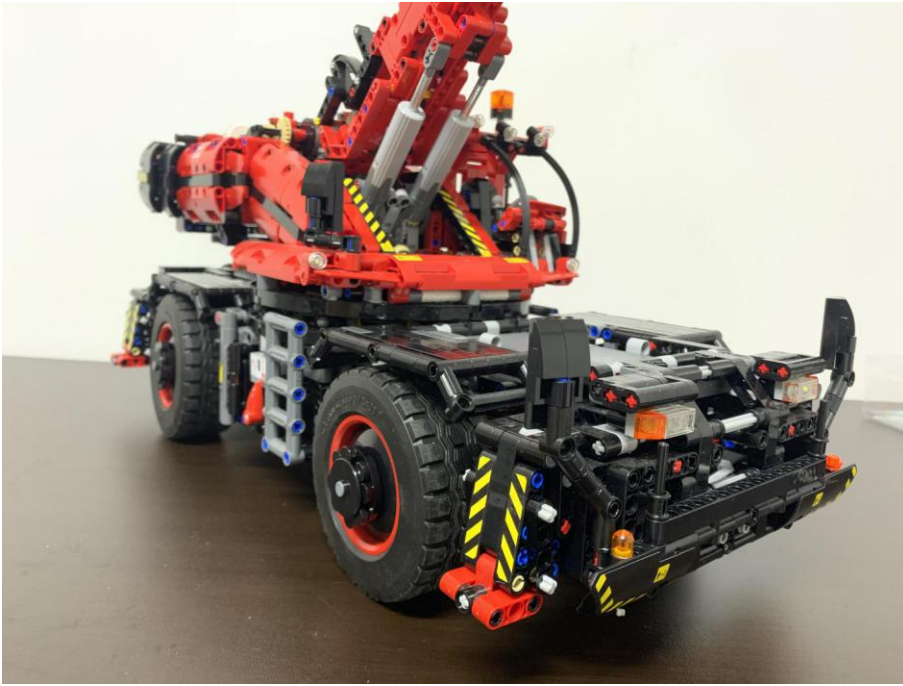
Finally, please pay attention to the positive and negative terminals of the battery when installing the battery case.



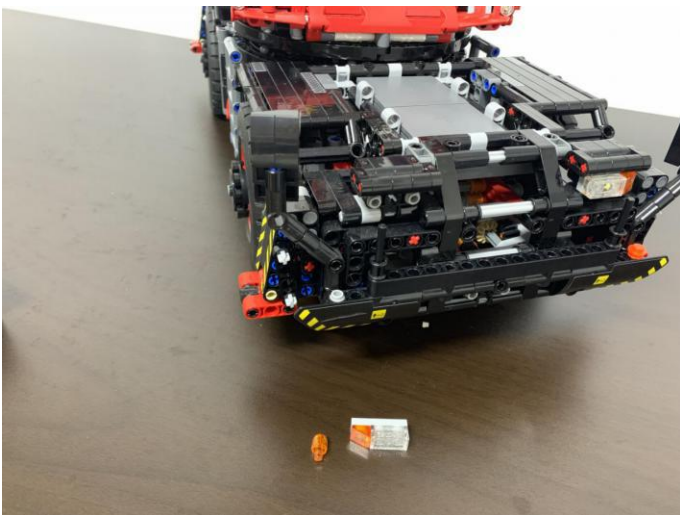
OK, Let's Begin!

Instructions for installing this kit

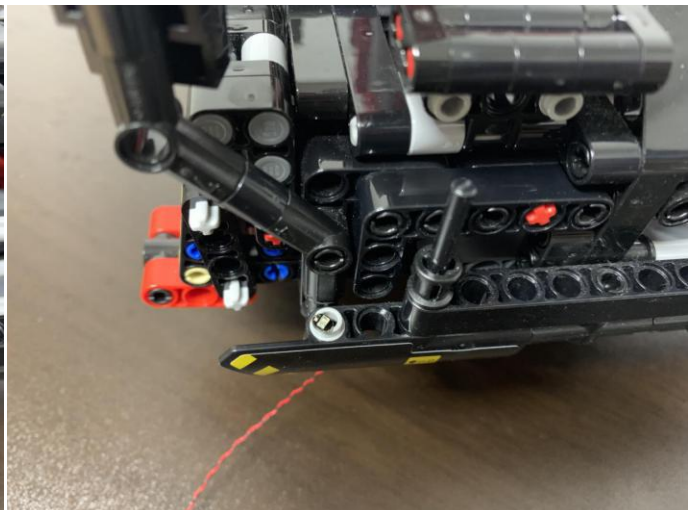
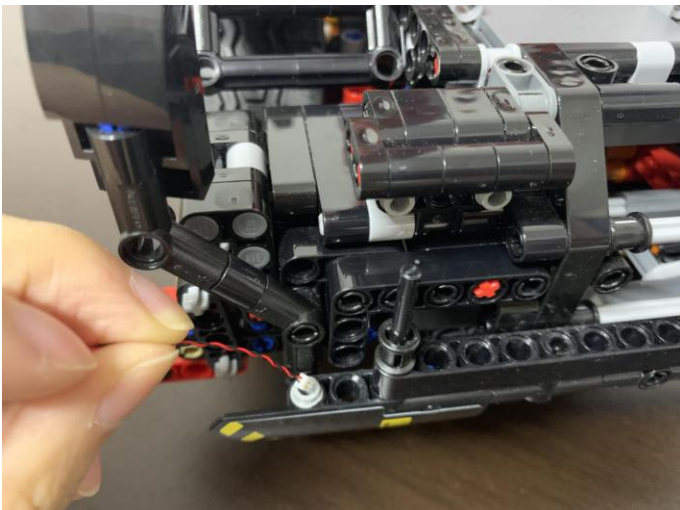
Start from the headlights of the crane !

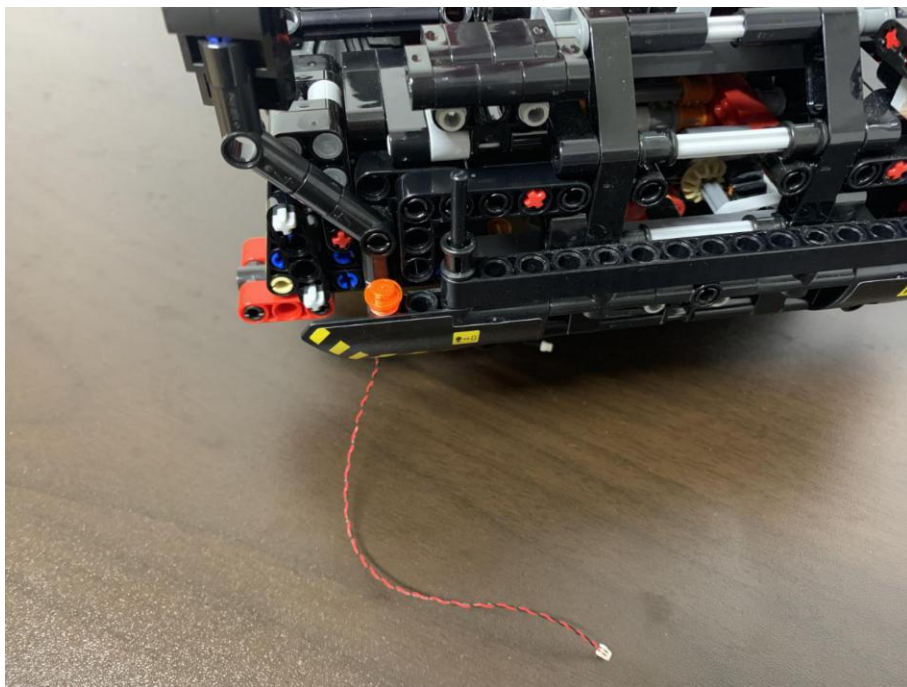


Remove the headlight from the left of the car. Take a yellow flashing Dot Light, a 1x1 orange round plate



Thread the LED component through the gray technic pin, pull till the LED component is facing up, secure it by connect the round plate over

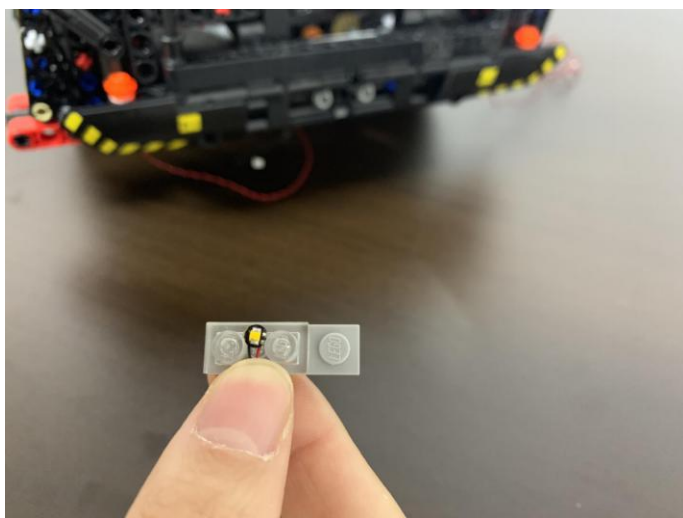


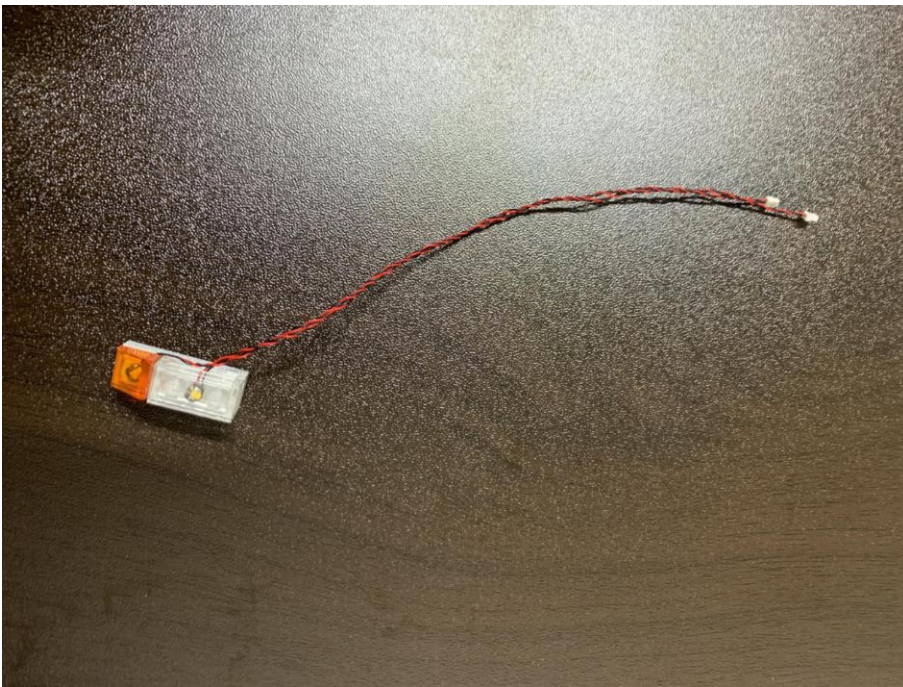
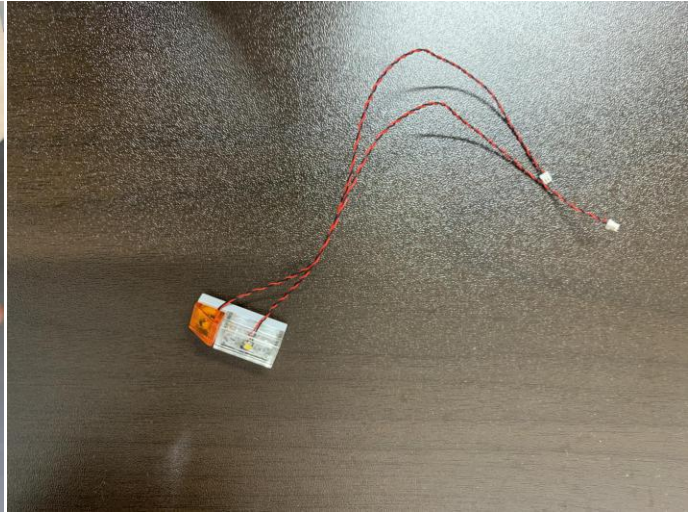
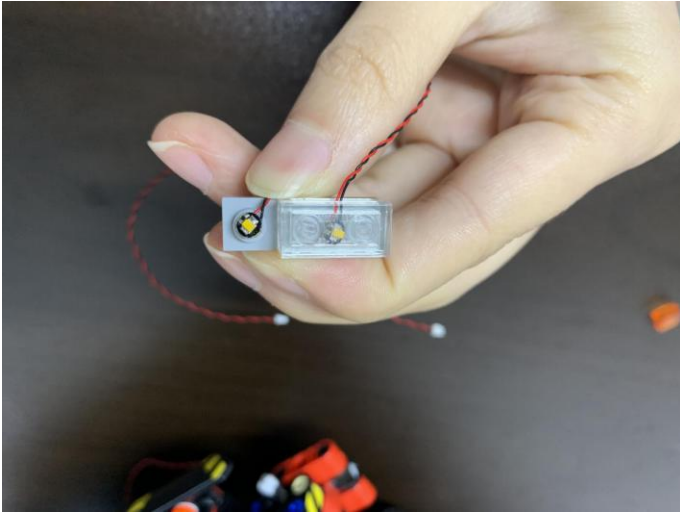


Take 2 warm white 15cm Dot Lights, disassemble the headlight as per below

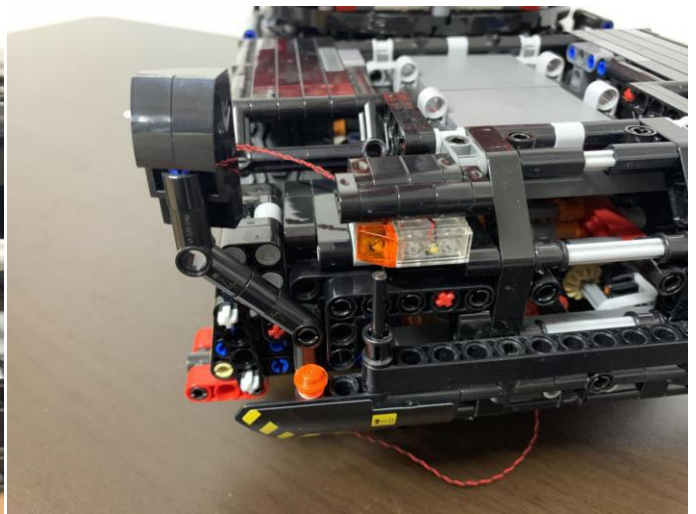
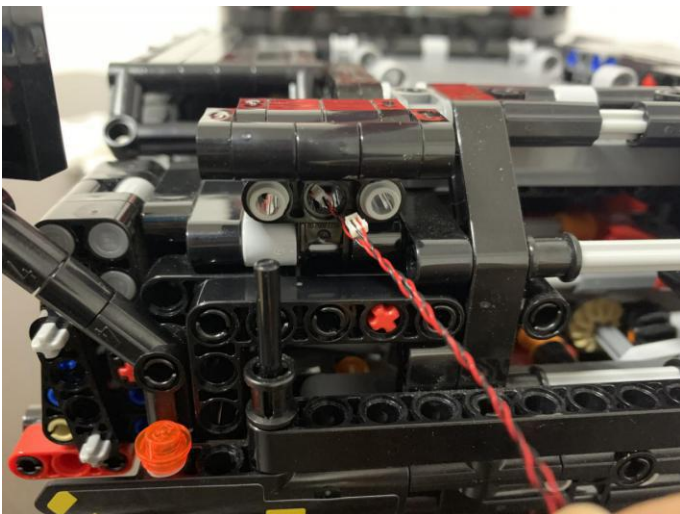


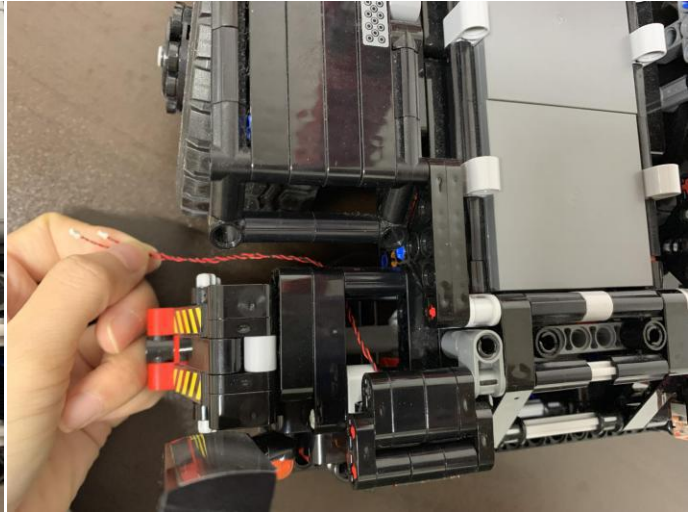
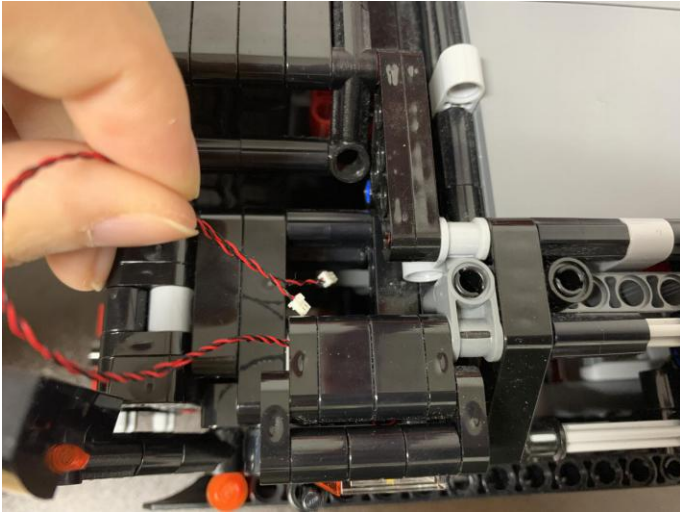
Place a Dot Light at the top of the trans piece in between studs, secure the other Dot Light in place by connecting the orange piece, twist the two light cables into one. Make sure the cables are facing down



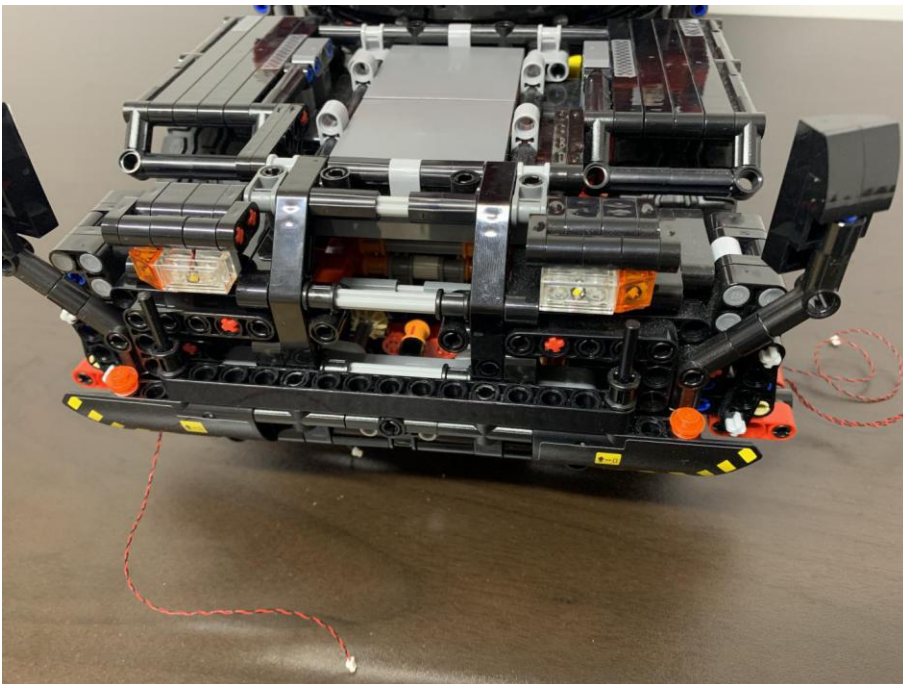


Thread the 2 connectors through the gap to reconnect the headlights. Pull the cables out from the bottom of the car





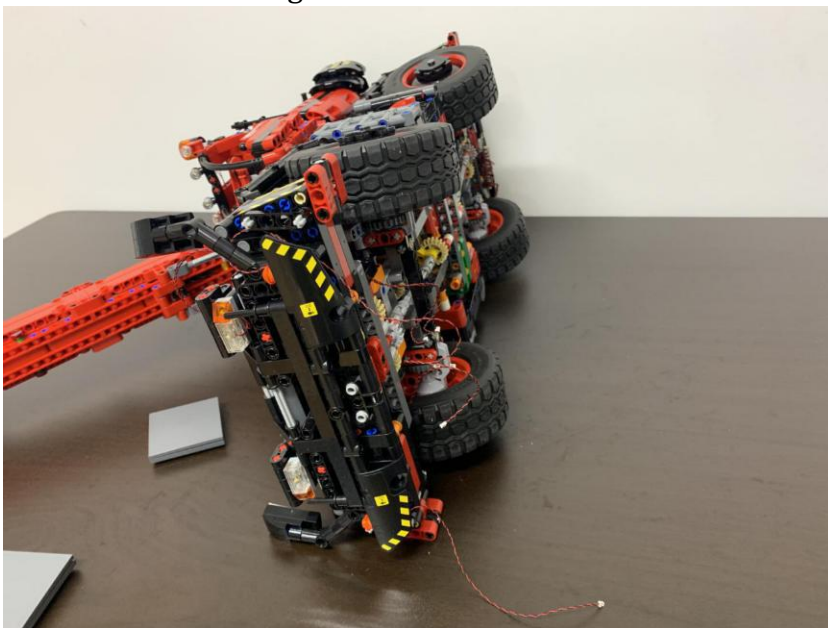
Take a 15cm yellow flashing Dot Light, 2 warm white Dot Lights. Repeat the above steps to install another headlight



Take a 50cm connecting cable, a 8-port expansion board. Stick tapes at both sides

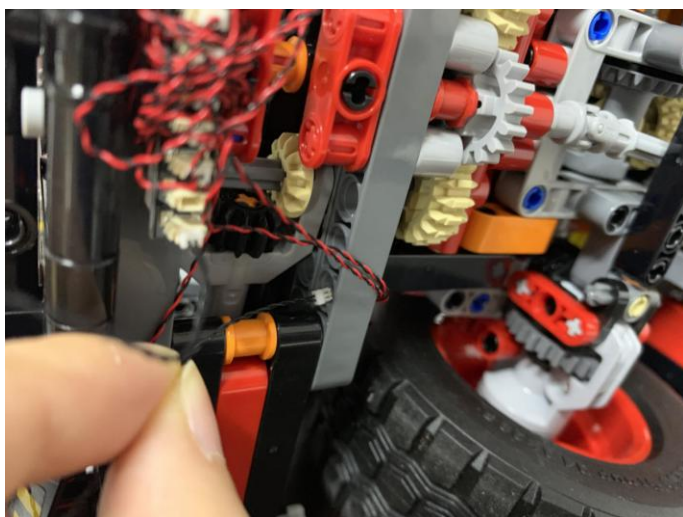


Thurn the crane over, connect the cables of the headlights to the 8-port expansion board, tuck the excess cables on the expansion board, then, stick the expansion board at the following place, connect the 50cm connecting cable to it

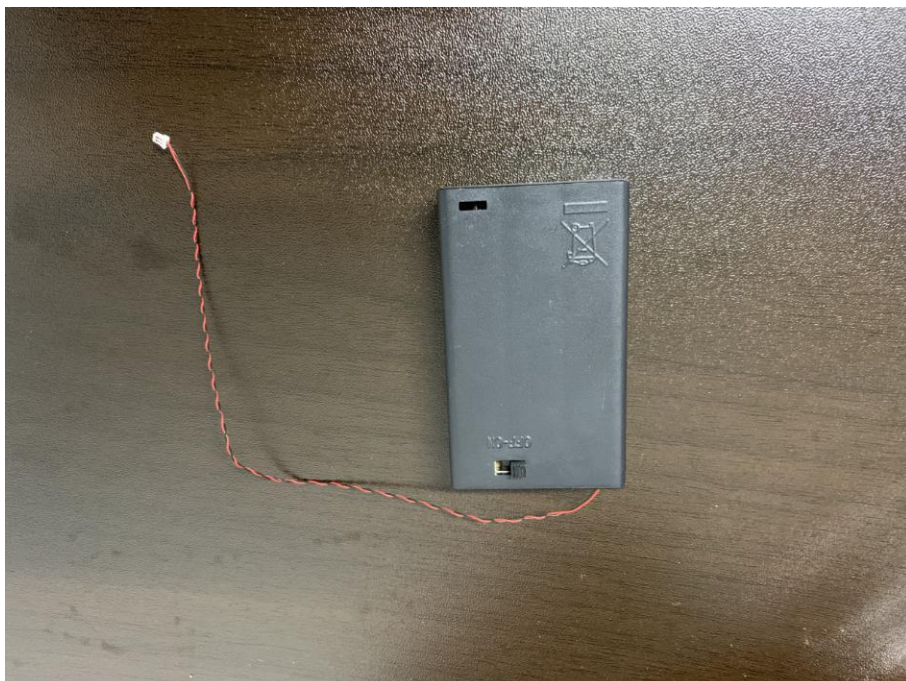




Thread the other end of the 50cm connecting cable through the technic holes as per below, and pull it to the back, remember to avoid the gears underneath the crane



Take the AAA batter pack, inserted with batteries, connect its cable to the 8-port expansion board to test all the lights we installed

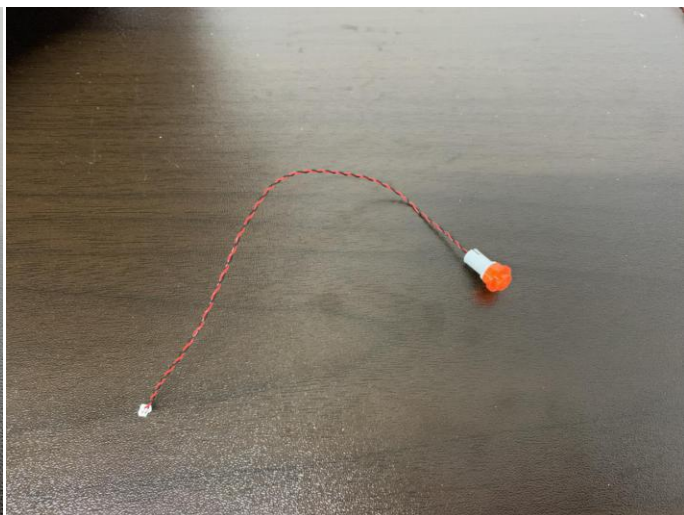




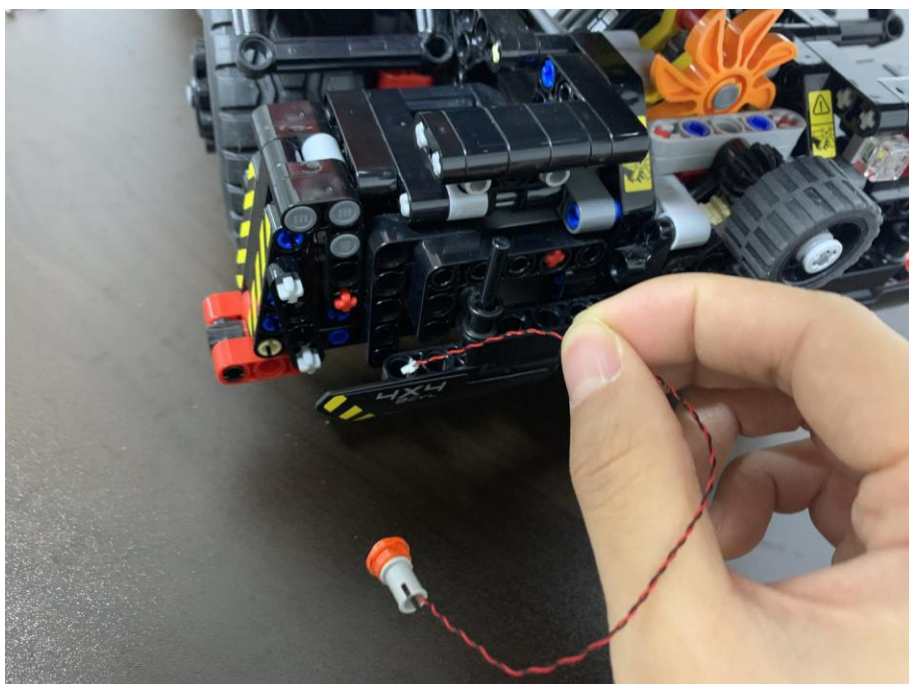
Now, move onto install the lights at back of the crane



Remove the following taillight, take a 15cm yellow flashing Dot Light, install it to the taillight section as per below



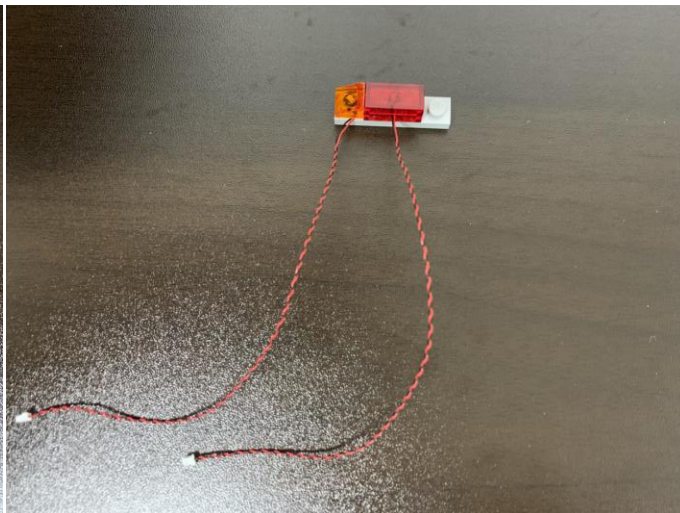
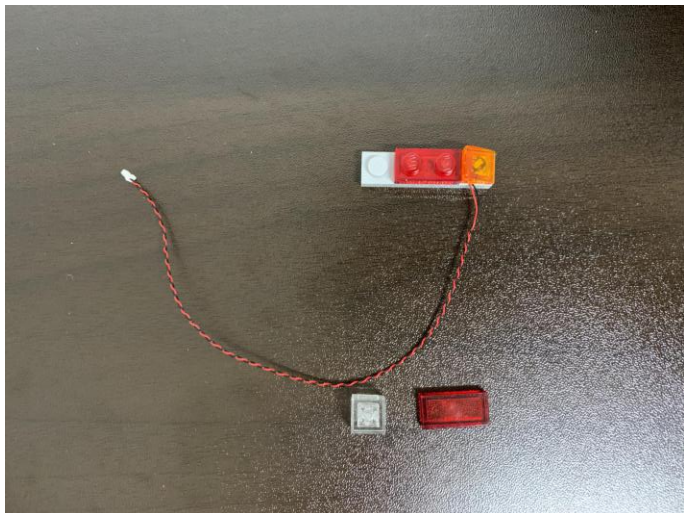
Thread the connector side through the gap, then, pull it out from the bottom of the car



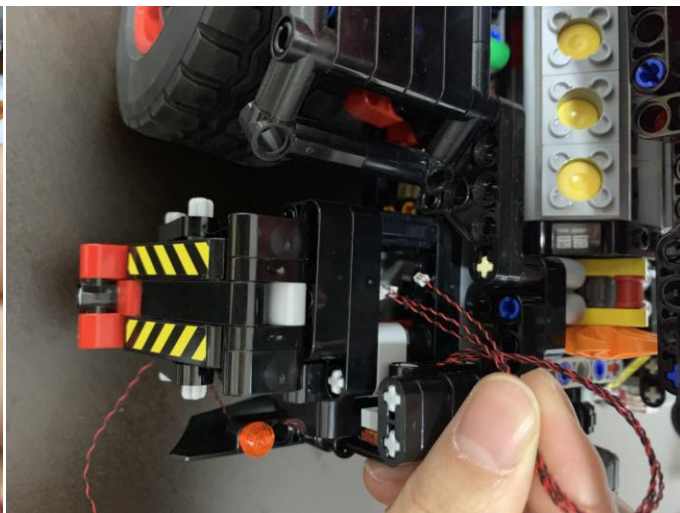
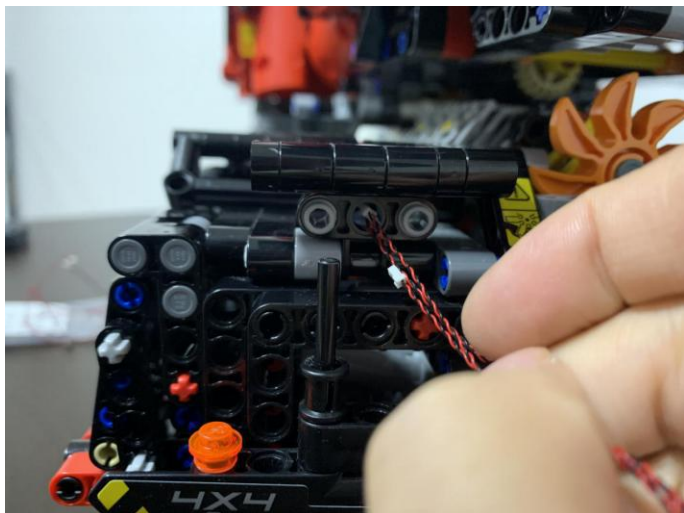
Take 3 warm white 15cm Dot Lights, disassemble the taillight section as per below



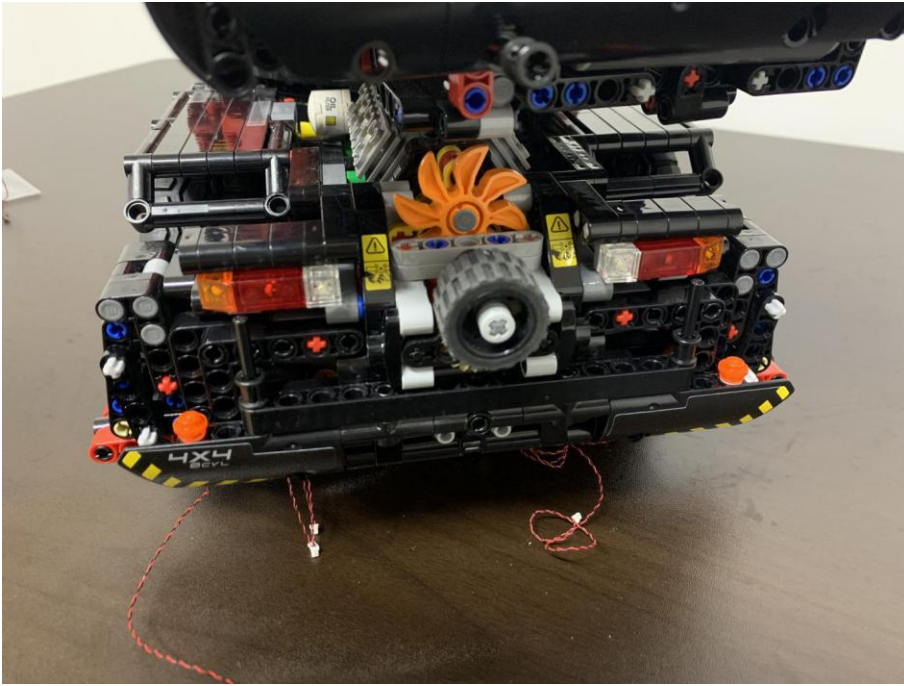
Secure the 3 Dot Lights in place by using the trans pieces as per below, group all three cables together



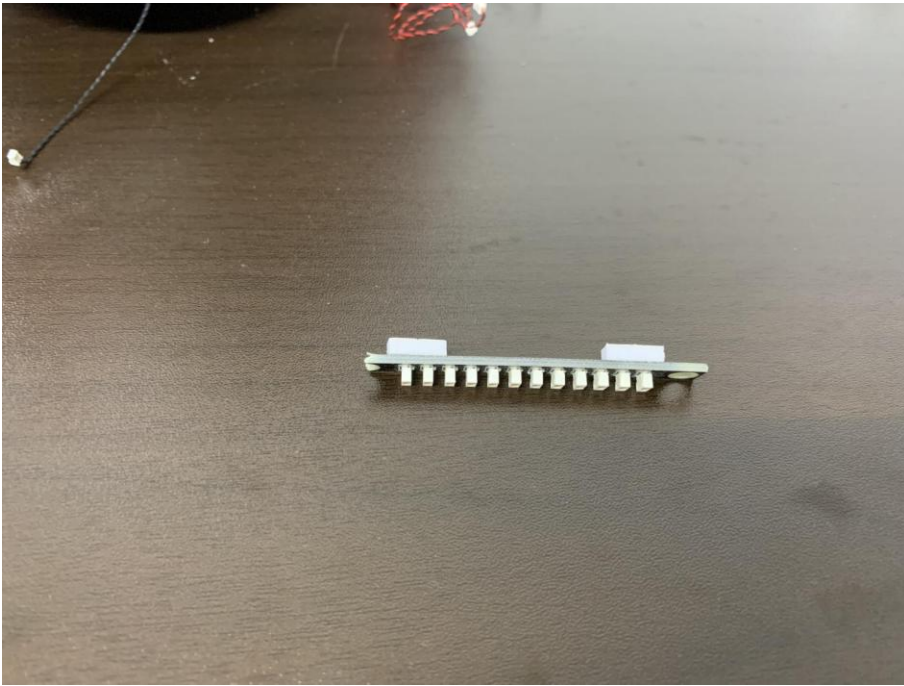
Thread all the connectors through the holes to the bottom of the car, reconnect the taillight



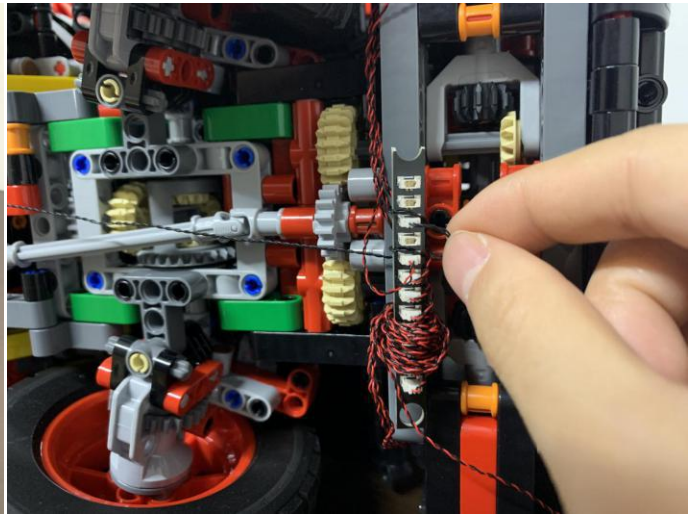
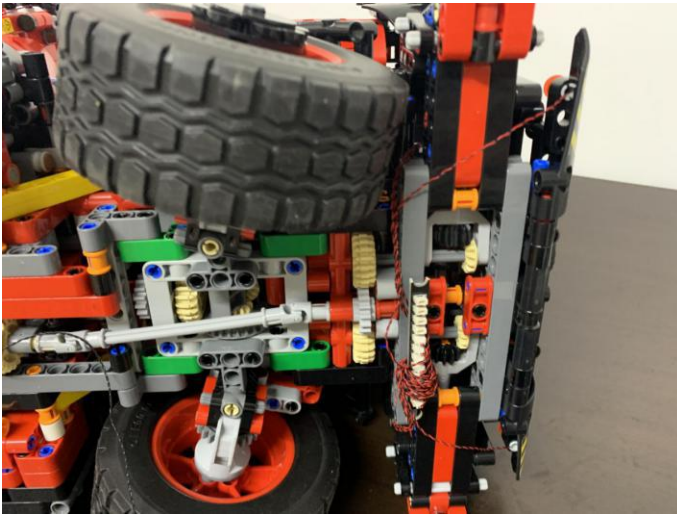
Take a 15cm yellow flashing Dot Light, 3 warm white 15cm Dot Lights, repeat the above steps to install the other taillight



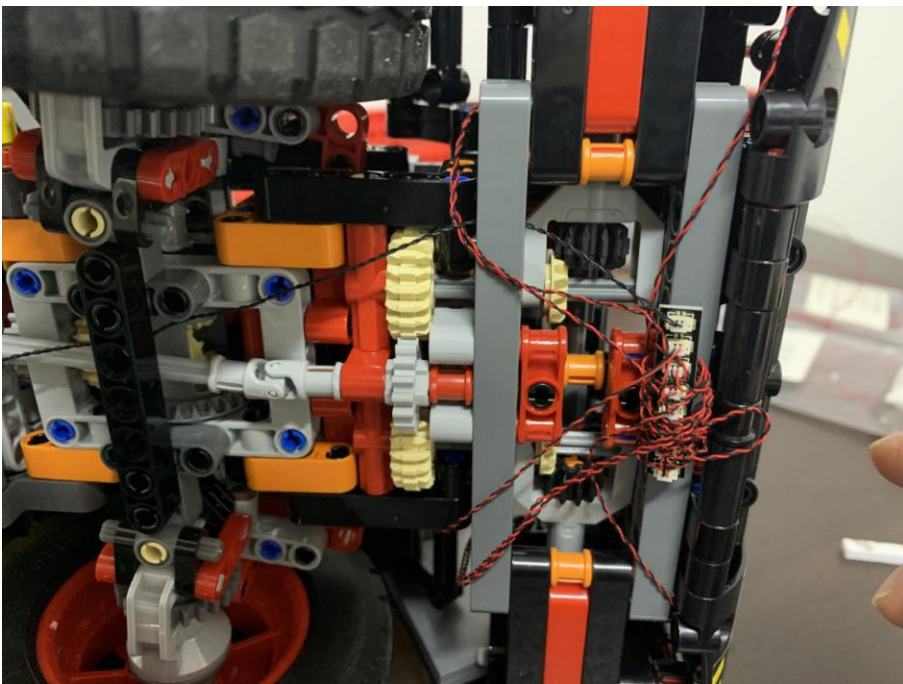
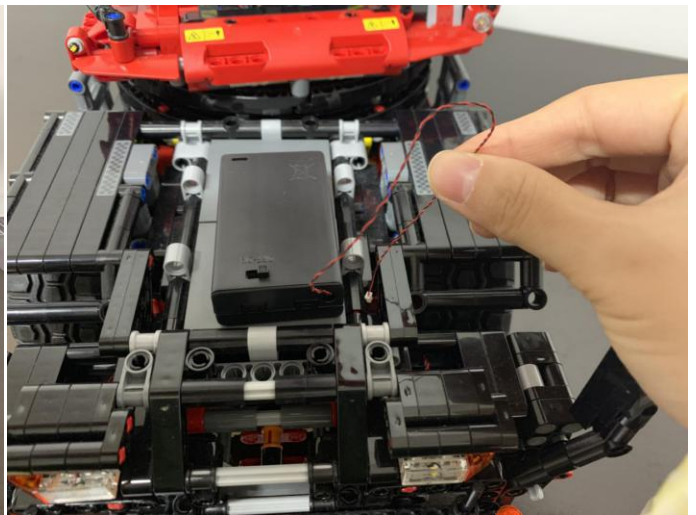
Take a 12-port expansion board, stick tapes at both sides



Connect all the cables of the taillights to the expansion board, also connect the 50cm connecting cable to it, tuck the excess cables to it, then, stick it to the following place



Turn the crane back, place the battery pack at the following position, thread its connector through the following gap then connect it to the 8-port expansion board



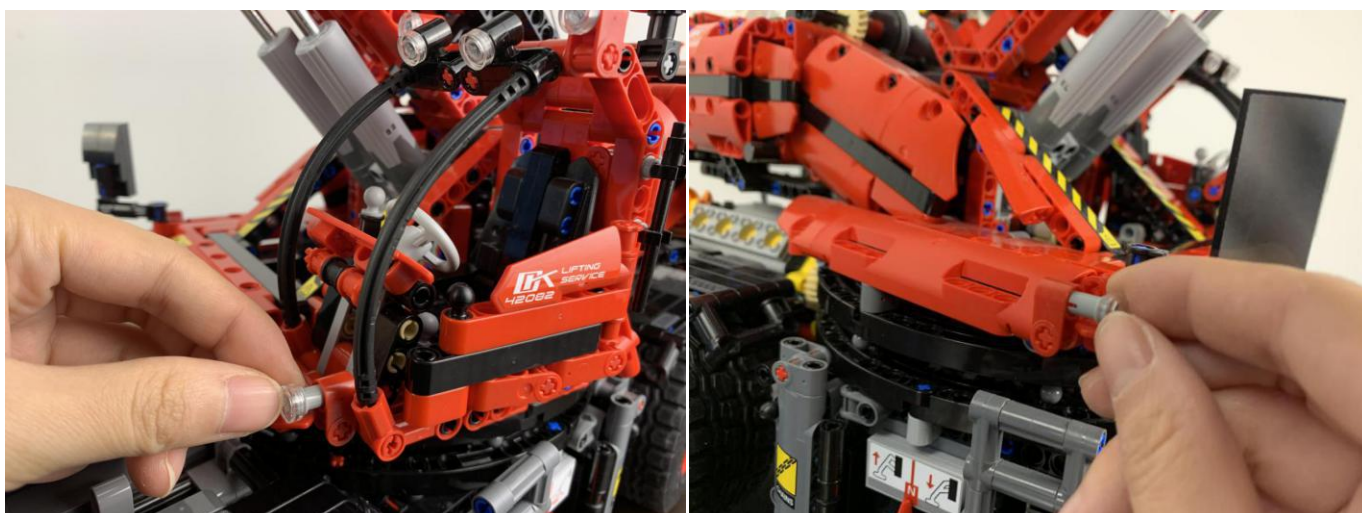
Now, we complete installation for the headlights and the taillights, Turn on the battery pack to verify all the lights are all working OK.



Now, we'll continue to install the lights around the cab



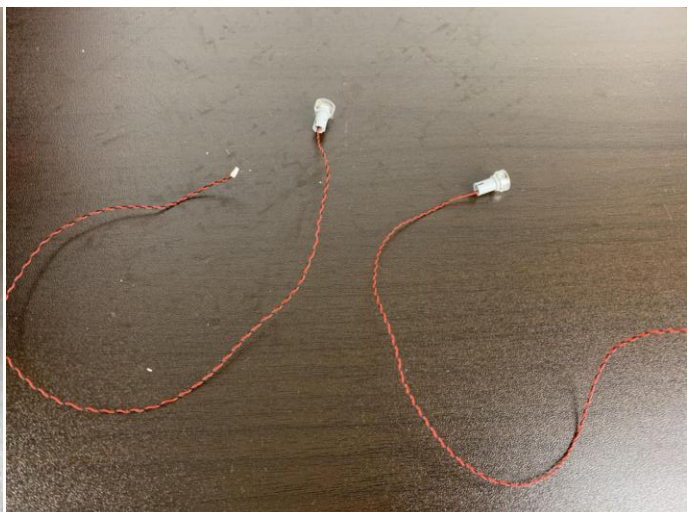
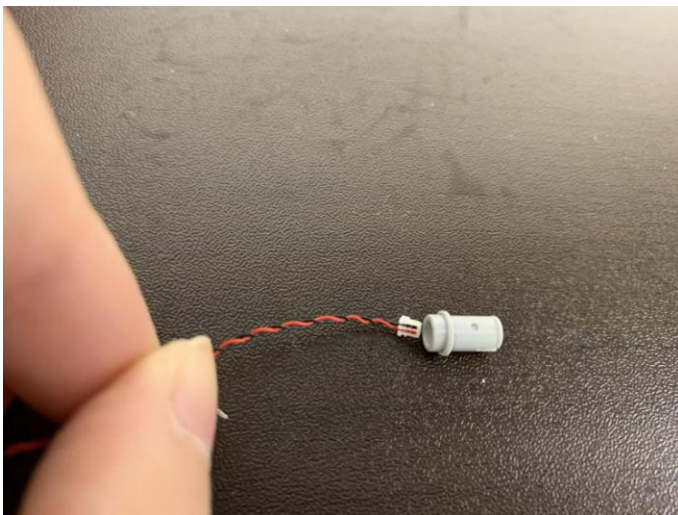
Remove the following pieces in front of the cab



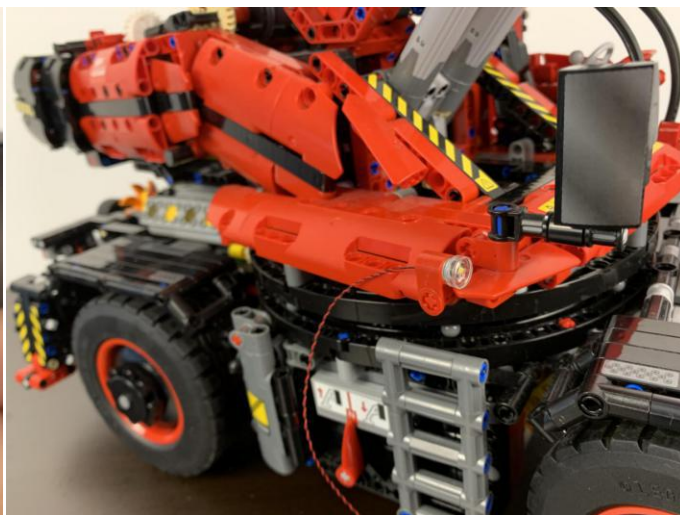
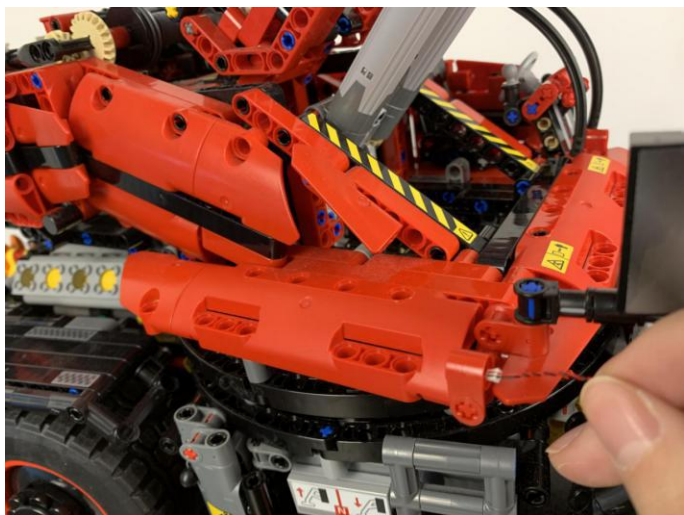
Take 2 warm white 30cm Dot Lights, disassemble the trans round plates and the technic pin



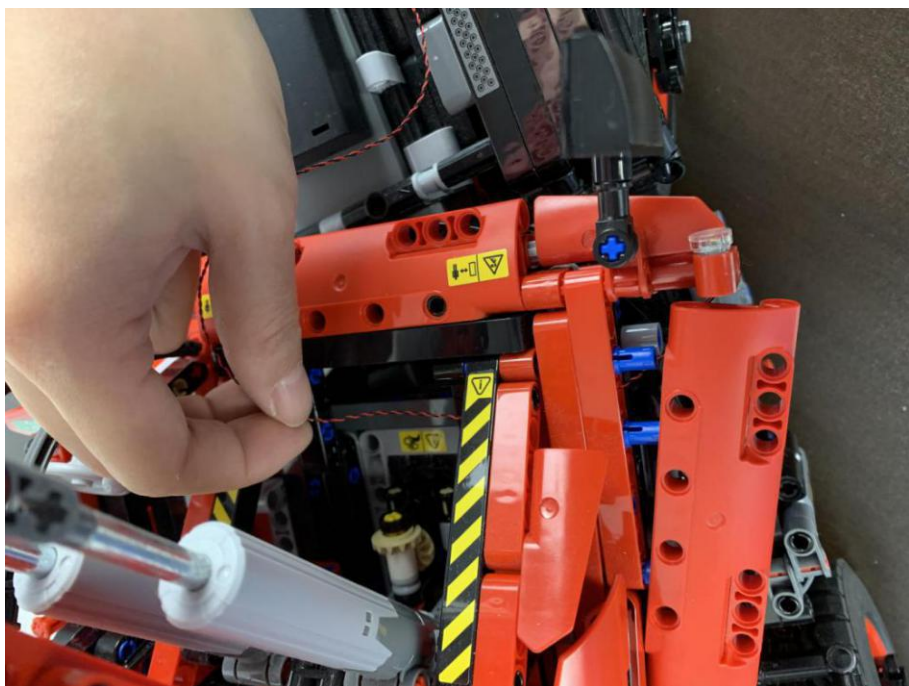
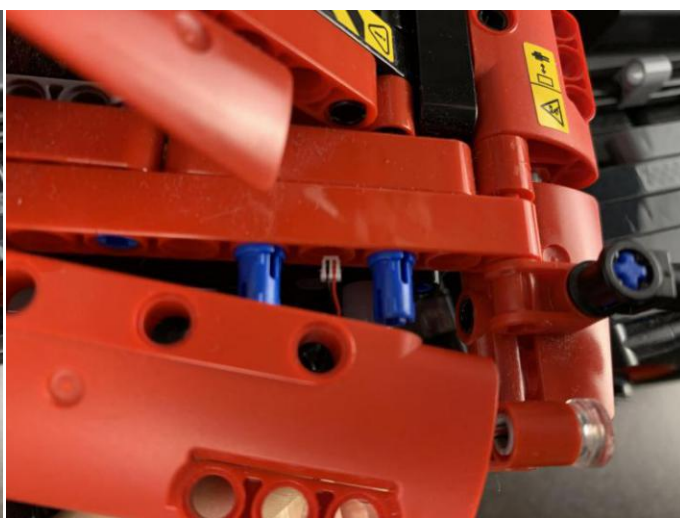
Thread one of the lights' connector through the technic pin, pull it all the way out till the LED component is facing up, secure the Dot Light in place by reconnect the trans piece. Repeat the above steps to install the other Dot Light



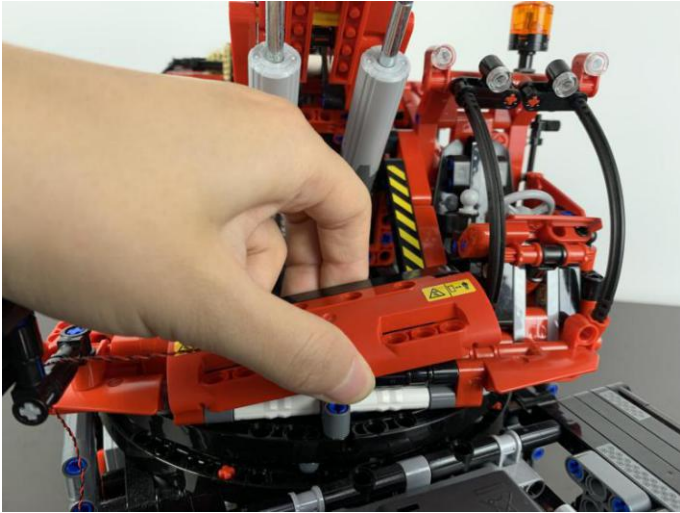
Thread the connectors through the following gap, then, reconnect the technic pins



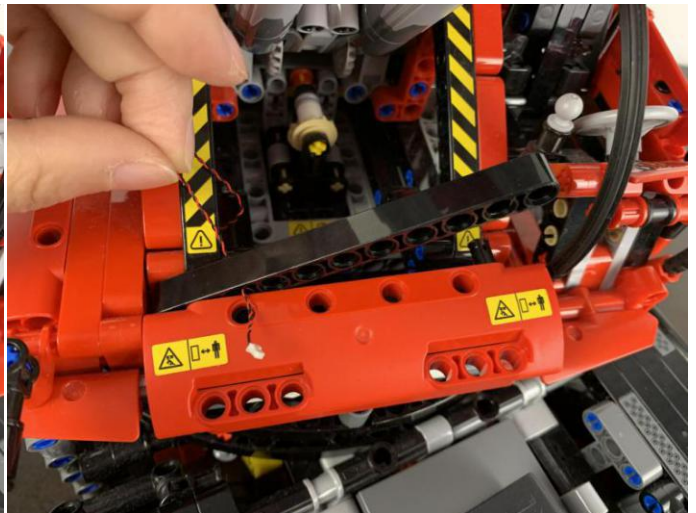
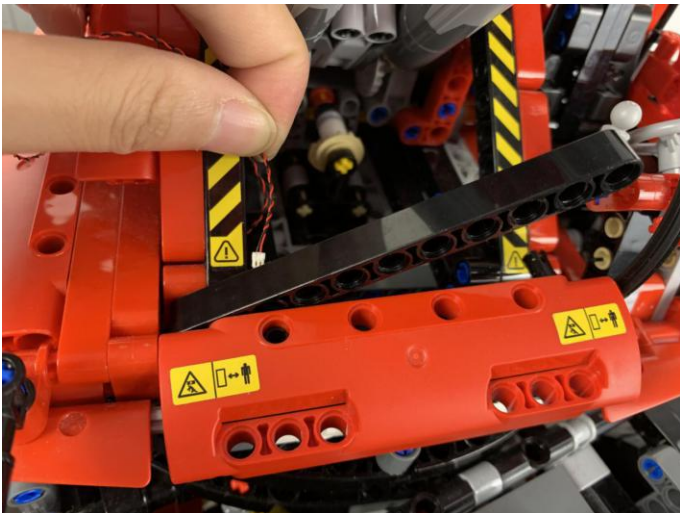
Slightly pull the red piece out, thread the connector from the bottom through the technic piece, pull it out from the other side

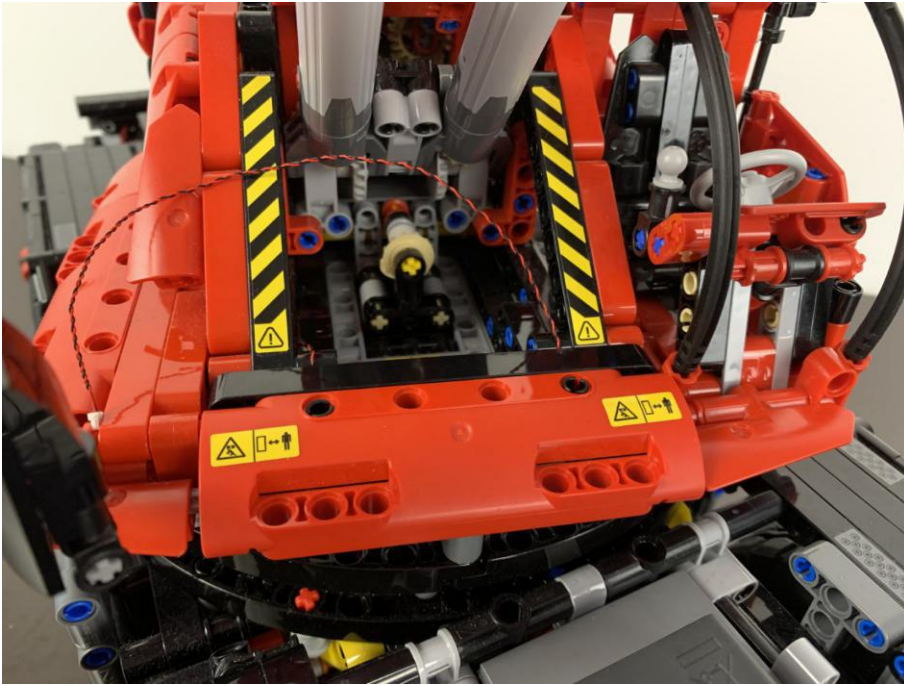


Slightly lift the following red piece up to help us disconnect the black technic piece

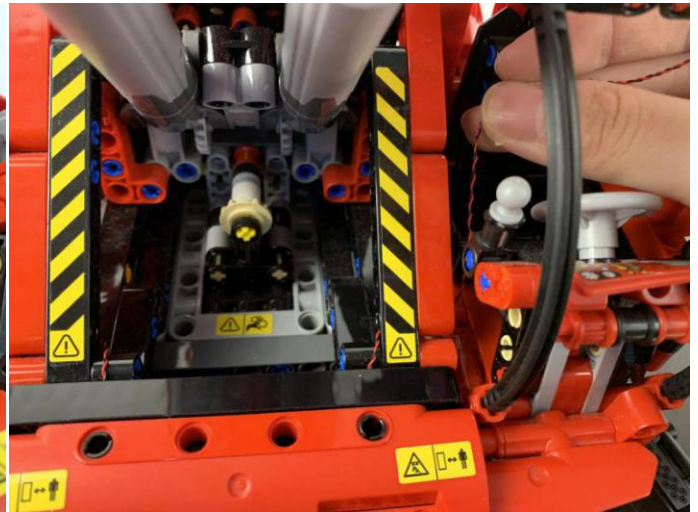
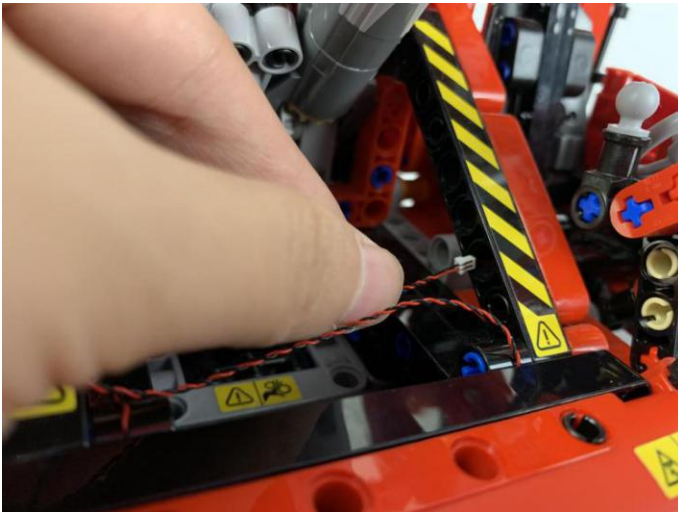


Thread the cable of the Dot Light through the far left hole on the black technic piece, then, thread it through the third hole from the right side, reconnect the red piece and the black piece, this helps us to hide the cable.

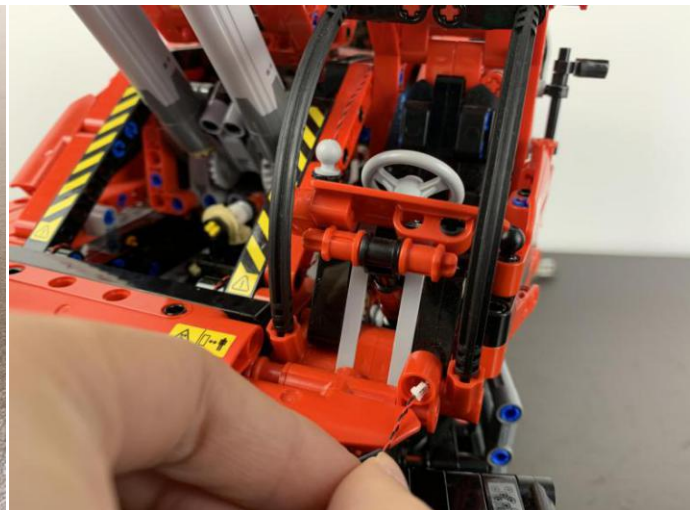
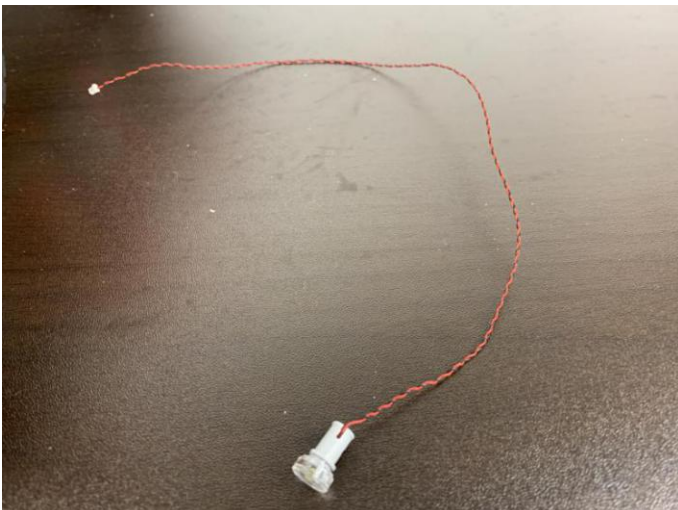


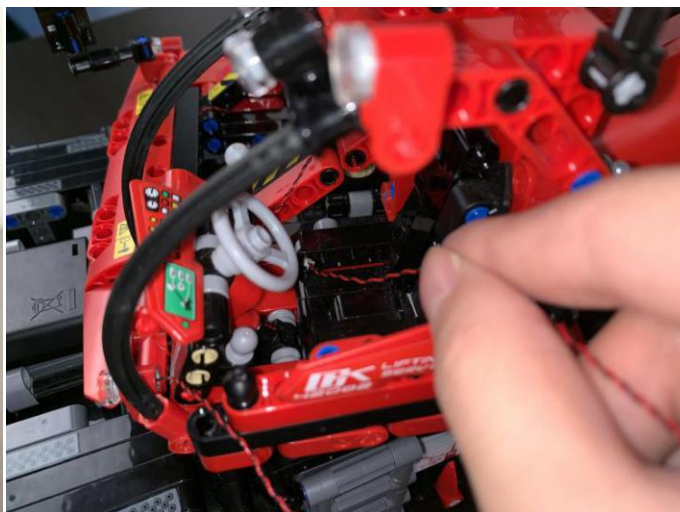
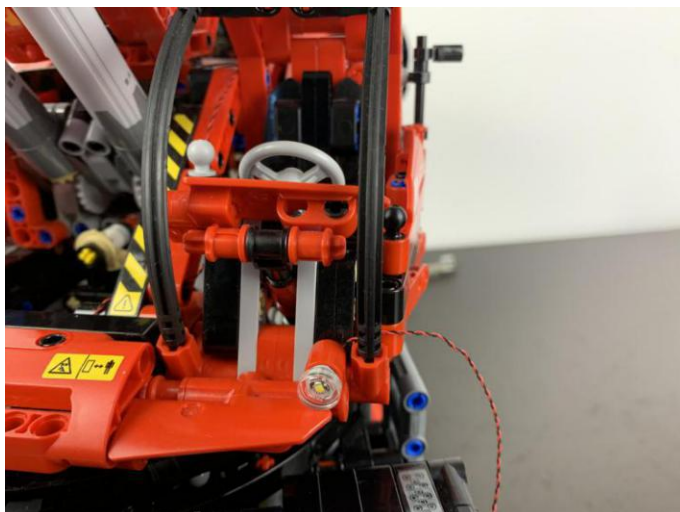


Thread the cable through the hole on the yellow and black technic piece, pull it out to the back of the cab

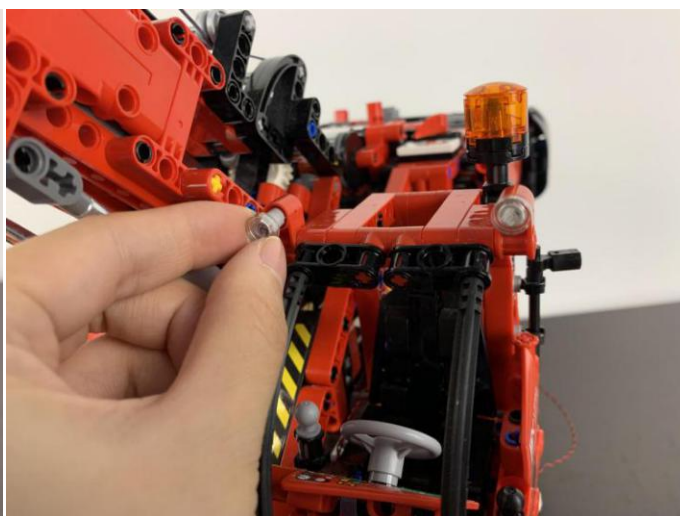
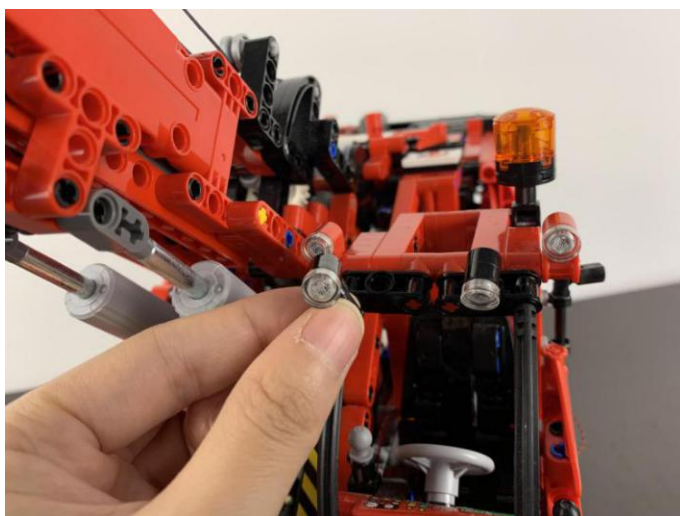


Similarly, reconnect the other light back in place, pull the cable to the inside of the cab, thread through the hole of the black Technic piece, pull it to the back of the cab



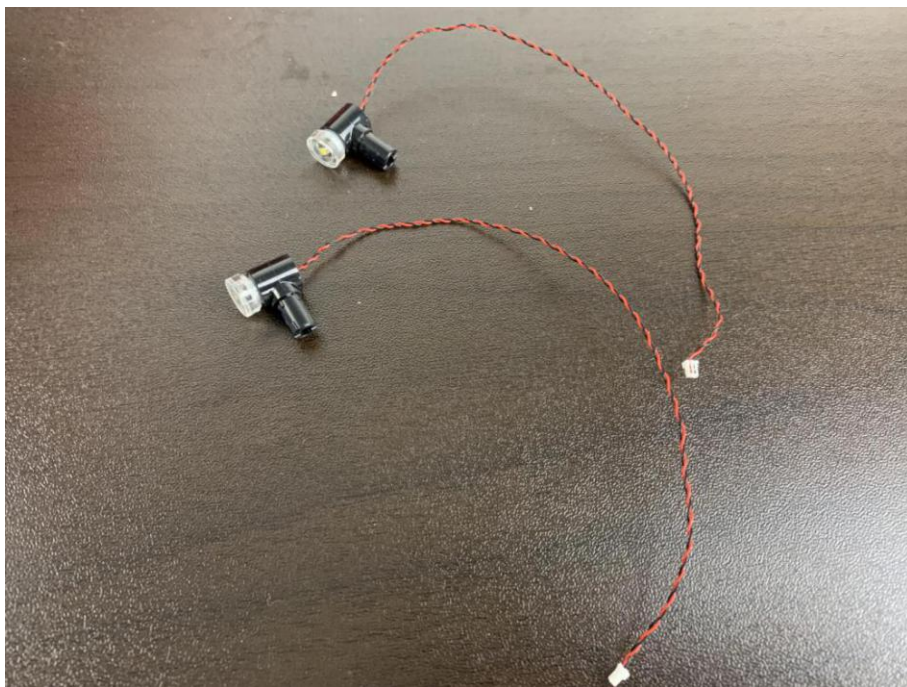


Remove the trans pieces above the cab



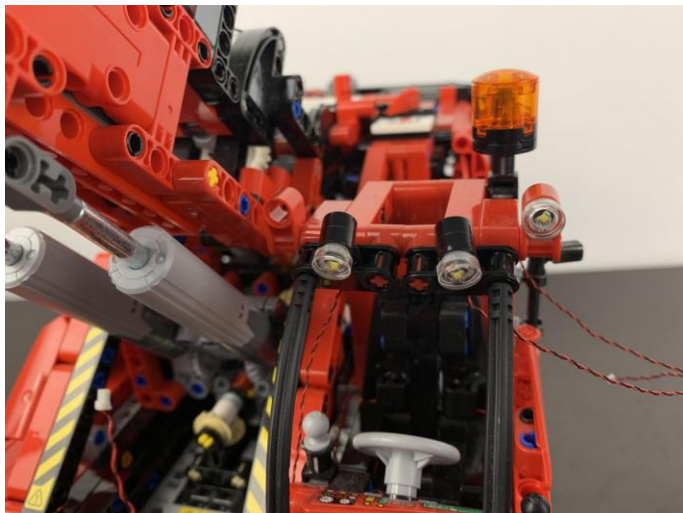
Take 4 warm white 15cm Dot Lights, assemble them as per below





Reconnect the 4 trans pieces back in place, make sure their connectors all thread through the holes as per below

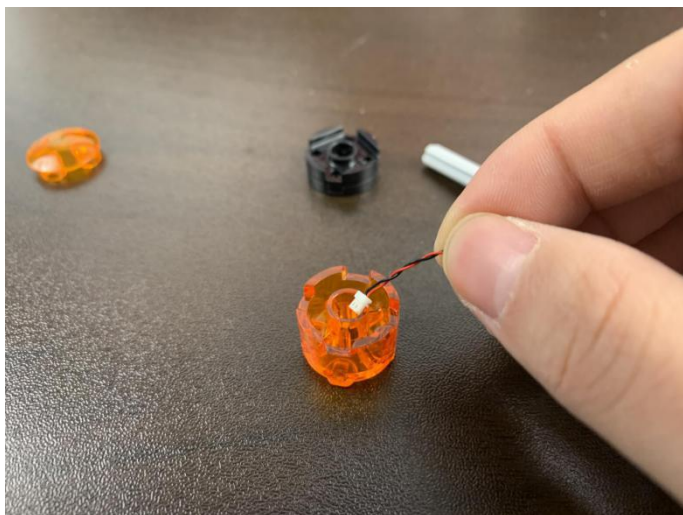




Take a Rotating Dot Light, remove the flashing light from the roof of the cab, disassemble it as per below

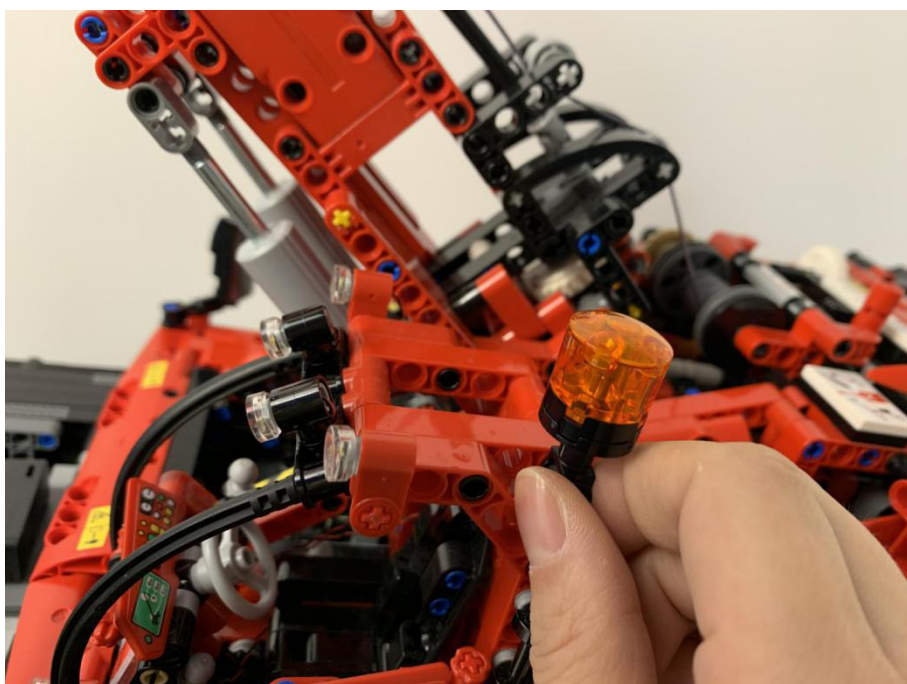
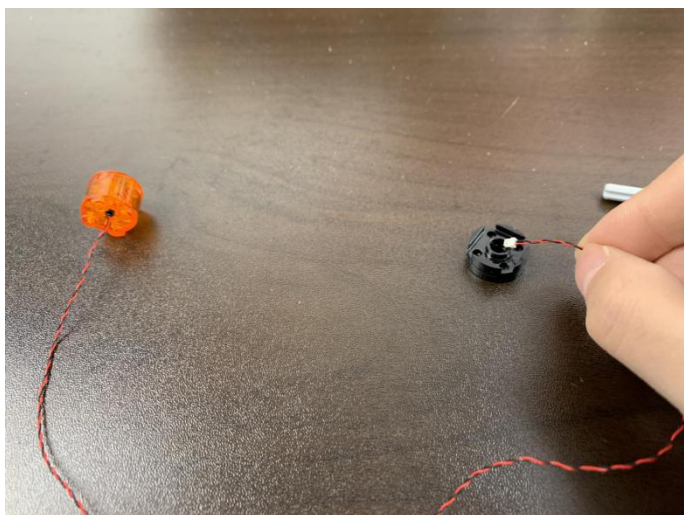


Thread the connector of the Dot Light through the orange piece, pull till the LED component is right against the hole. NOTE : be gentle, because the cable can be broken easily

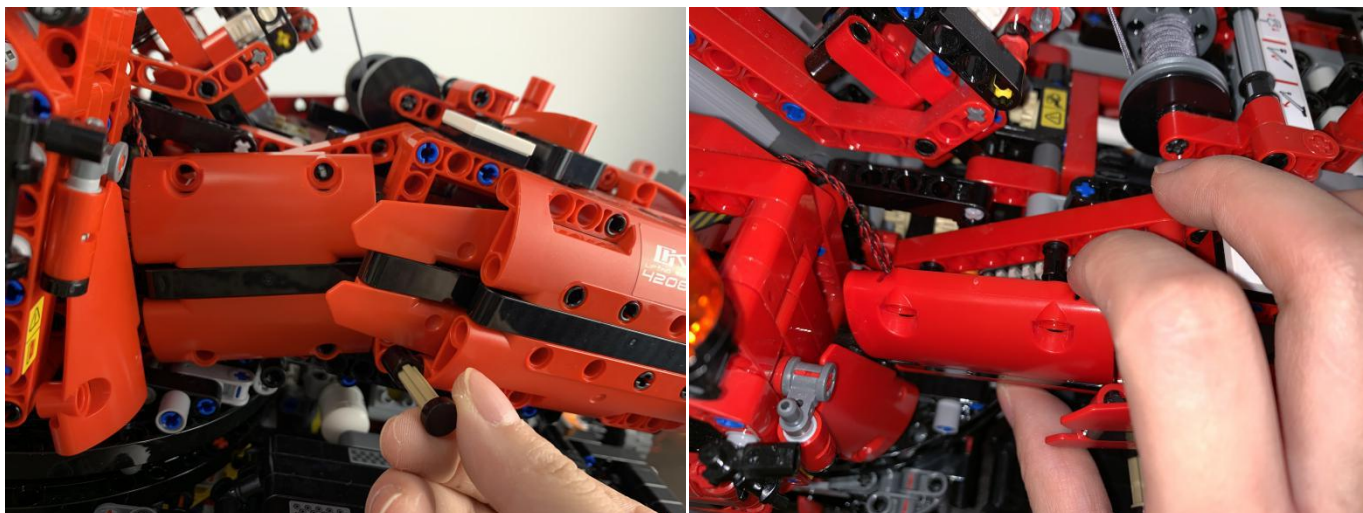




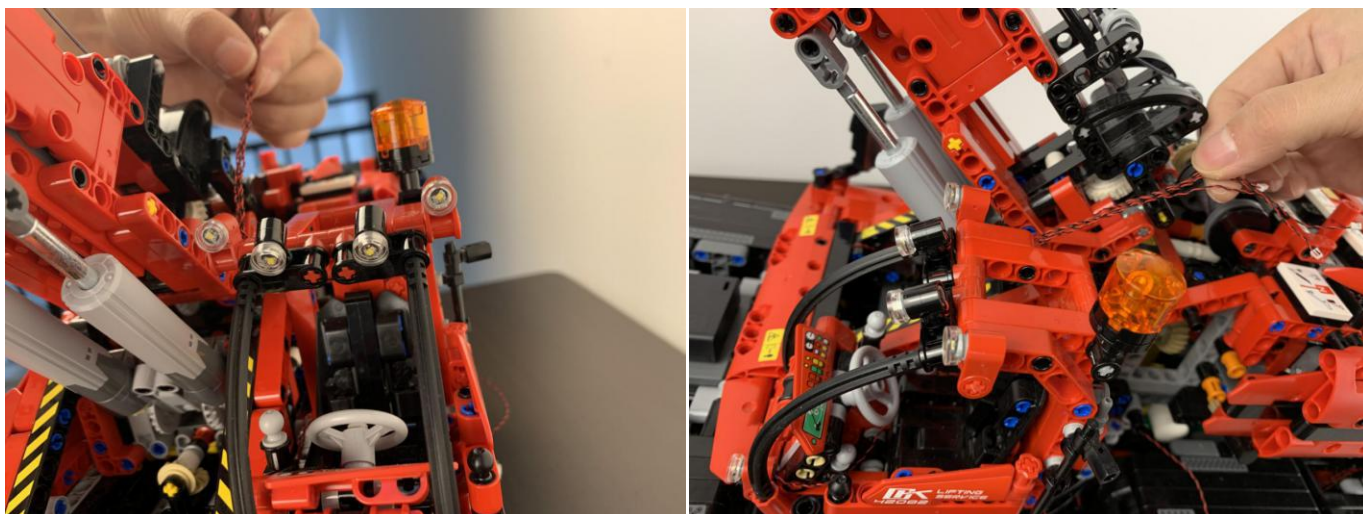
Reconnect the 2x2 round plate, thread the connector through the black round plate, reconnect the flashing light. Note: to avoid breaking the light, the gray technic pin can't be completely reconnected.



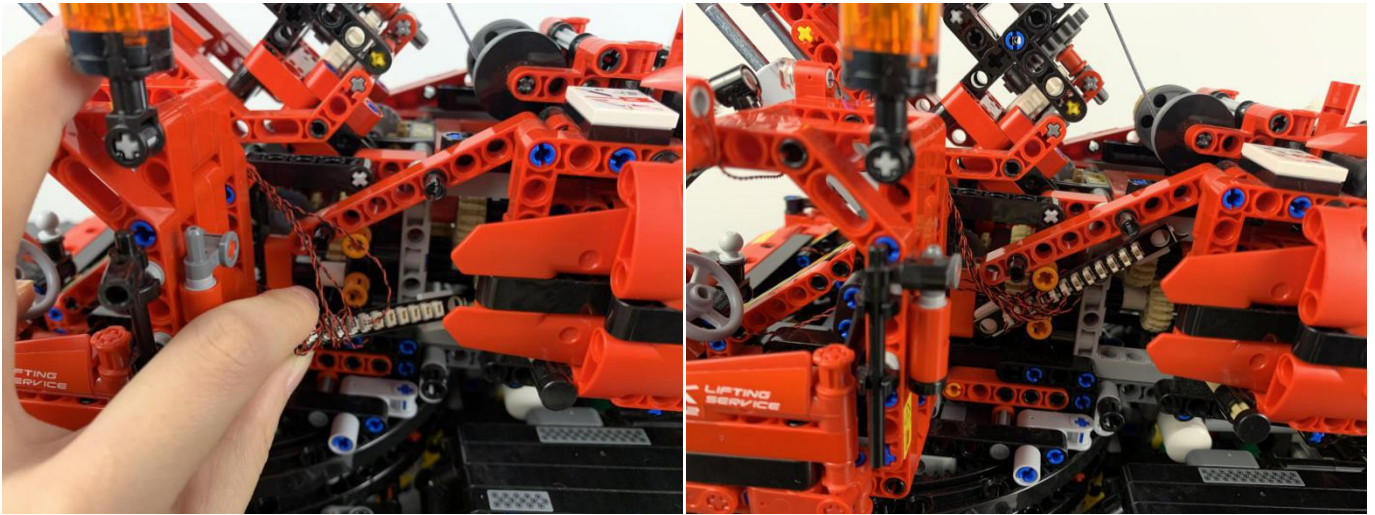
Remove the red plate at the back of the cab as per below



Pull all the cables of the Dot Lights to the back of the cab, then, group them together



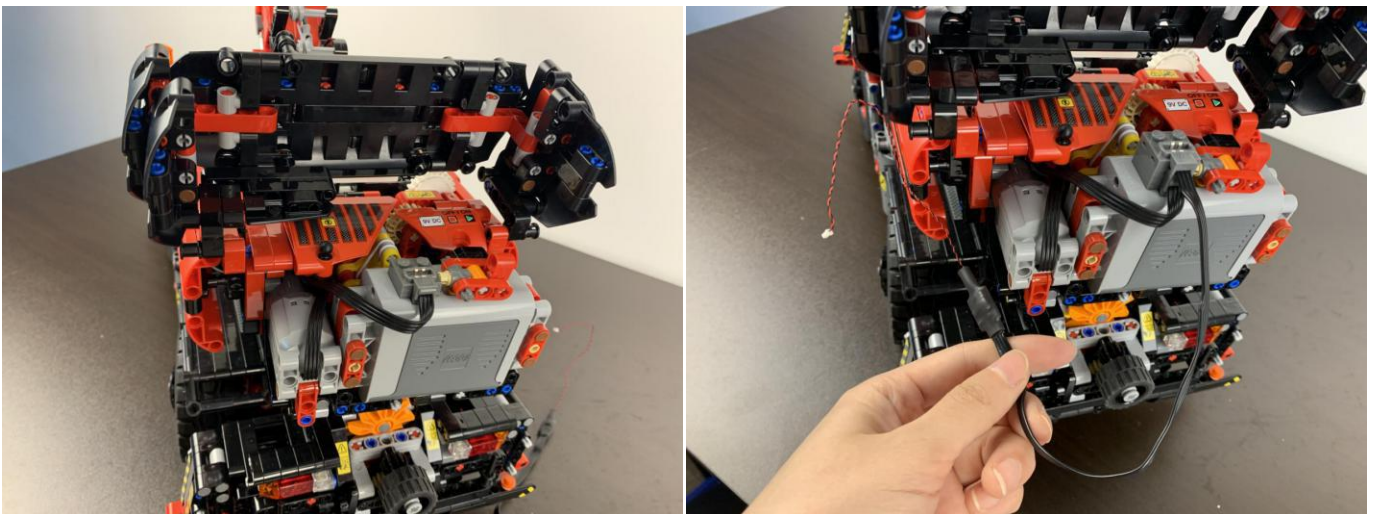
Take a 12-port expansion board, stick tapes at both sides, connect all the cables of the lights to the expansion board, tuck the excess cables around the expansion board, stick the expansion board at the following place



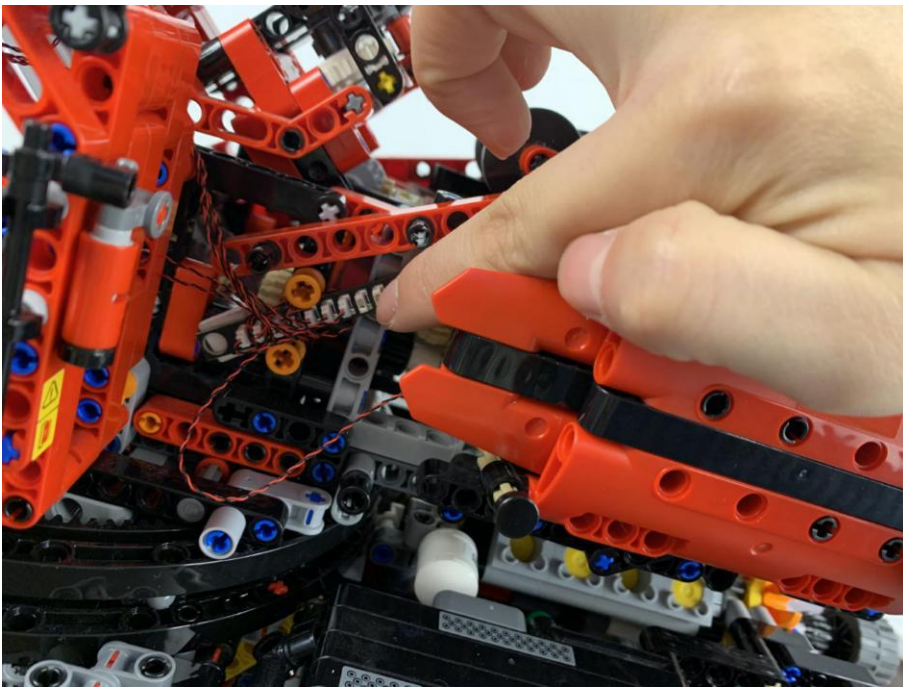
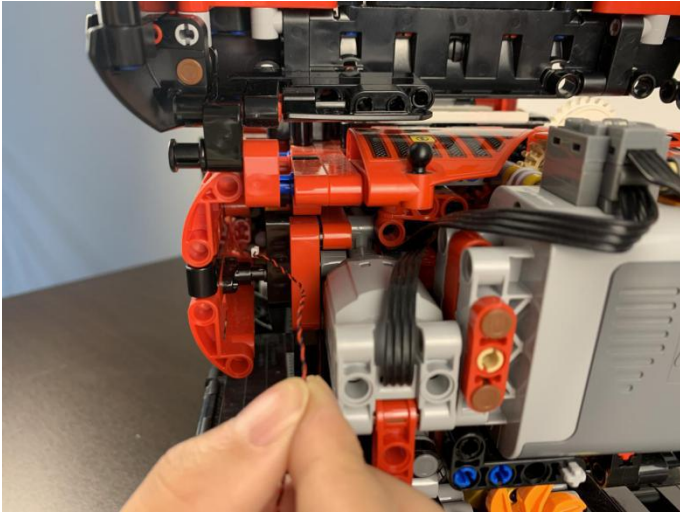
Take the Power Functions Cable



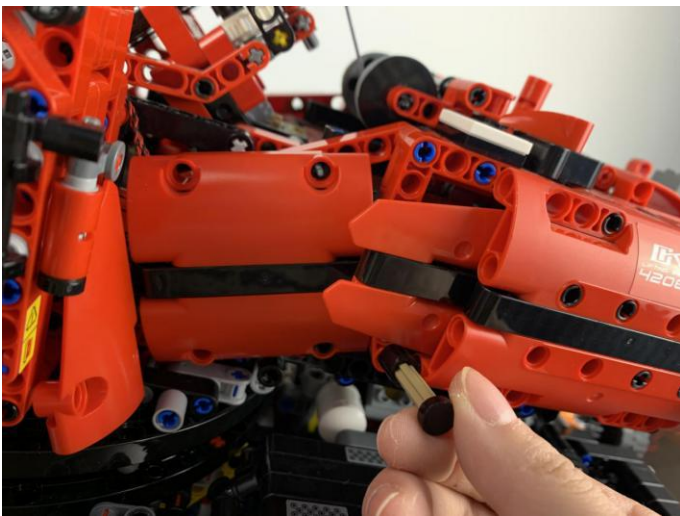
Connect it to the battery pack



Thread the connector side through the gap of the red plate at left side, pull the cable to the back of the cab, then, connect it to the expansion board



Reconnect the red plate



This finally completes installation of your LEGO lighting kit. Now turn on the light kit and ENJOY!

