

42100 Liebherr R 9800 Excavator P15701

- **P15701 is the unique code of lighting set, we use this to accurately identify the product you purchased and the corresponding manuals and services you need to obtain. Please make sure your product code is the same as the label on the back of the box shown “42100 P15701”.**
- **Installation requires a lot of patience and great observation that your LEGO bricks will come alive when you get this finished. The bricks with lighting as below, so make sure you're ready and let's get started.**



Strategies for the Installation

This instruction divides three sections to complete the installation of the lighting set.

Section A: Check the type and quantity of components.

The quantity and type of components of each products are different and it needs to be carefully checked to make sure there do have enough material.

The type of components is indicated by the label on the bag.

Section B: Test that each components is working properly.

Each components is made individually so it is necessary to test that each components is working properly to avoid the situation that the lighting does not work .

Section C: laying out components following the instruction.

Our material is very small but not fragile, just be reminded that don't to pull the wires too hard. For different people, there may be some installation steps that you can't understand. Please look at the previous and later installation step

Section A: Check the type and quantity of components.

There are 11 bags in this set. The name and quantities of specific components are as shown , please check carefully.

Label	Content	Quantity
Bit Lights-15CM-Warm White	Bit Lights-15CM-Warm White	6
Bit Lights-30CM-Warm White	Bit Lights-30CM-Warm White	10
LED Strip Lights-Red	LED Strip Lights-Red	2
LED Strip Lights-Warm White	LED Strip Lights-Warm White	4
Expansion Board	6 Socket Expansion Board	1
	8 Socket Expansion Board	1
	12 Socket Expansion Board	1
AA Battery Box	AA Battery Box	1
Connecting Cables-5CM	Connecting Cables-5CM	3
Connecting Cables-15CM	Connecting Cables-15CM	3
Connecting Cables-30CM	Connecting Cables-30CM	3
Multi-Effects Board	Multi-Effects Board	1
Parts package		

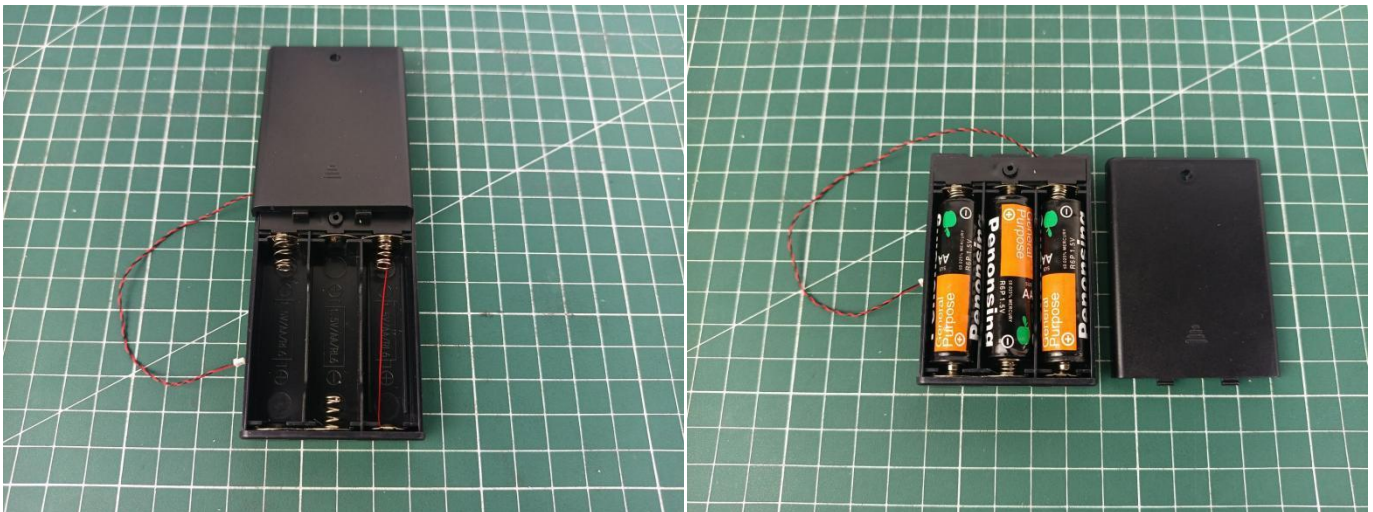
Please contact us immediately if there have any missing components.

Section B: Test that each components is working properly.

We need a structure to test all lights, so take out the bag with label “AA Battery Box” and “Expansion Boards” as follows.

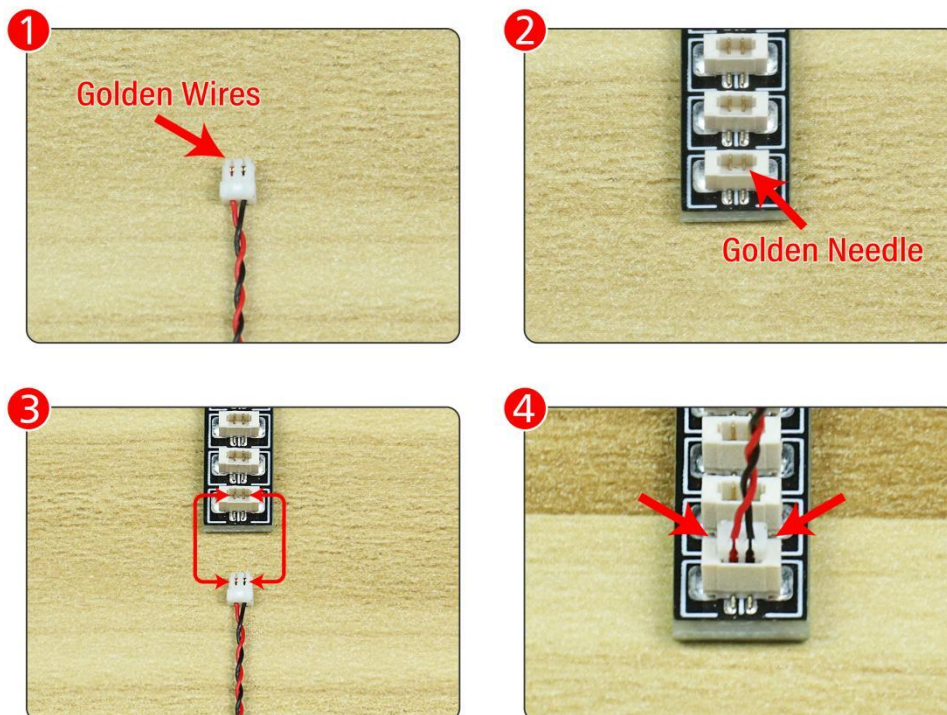


The AA Battery Box does not contain batteries, please buy three AA batteries in the nearest store and install it in the AA Battery Box.



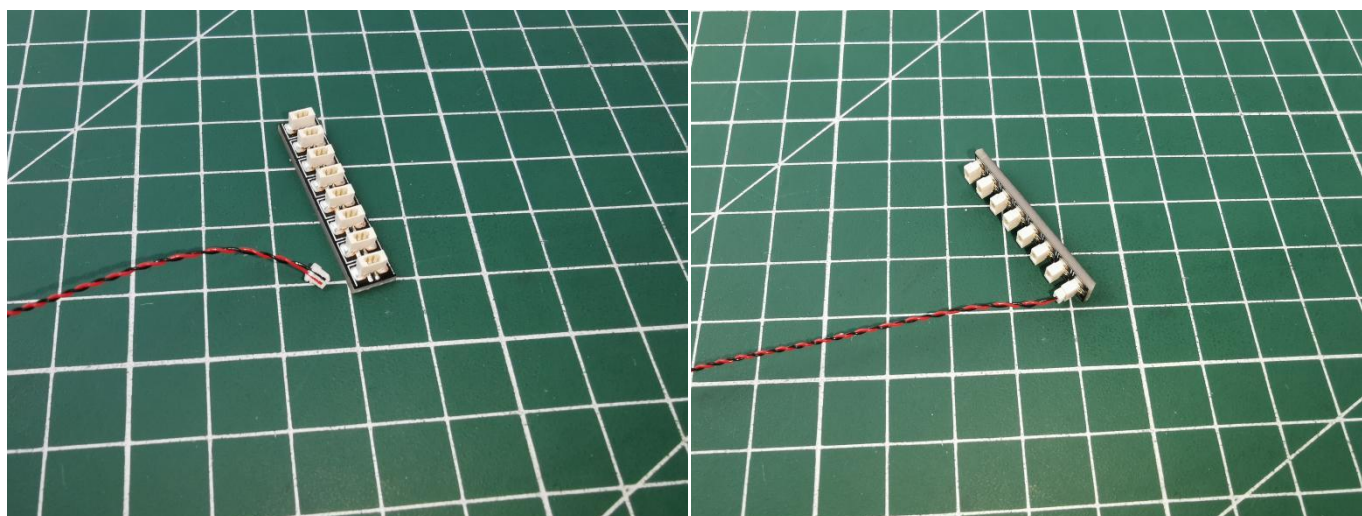
It is worth reminding that our products are all customized. They have a unique way of connecting. The white plug on wire and the socket of the expansion board need to be connected together to transmit power.

Note that on one side of the white plug you can see two very small golden wires that should be connected to the two golden needles in socket of the expansion board. shown as blow.

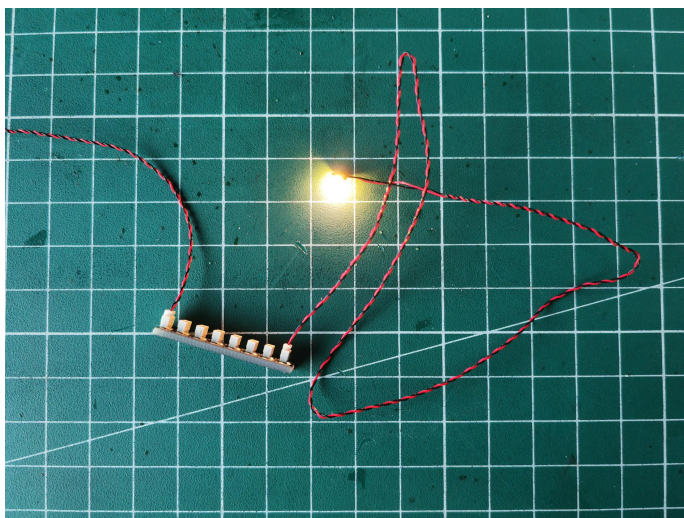


All our connections between plug and socket are all the same as shown above. So for any such structure with plug and socket, please pay attention to the golden wire of the plug and the golden needle of the socket, they must be touched together.

The connection method between the AA Battery Box and Expansion Boards is as follows:



when we test "Bit Lights-30CM-Warm White" particles,Take out the bag labelled "Bit Lights-30CM-Warm White".Take out one of the light and connect it to the socket. Turn on the battery box , the light will turn on normally as shown below.



Test each lamp according to this method. It should be noted that after the test, the lamp must be returned to the corresponding bag to avoid confusion of types.



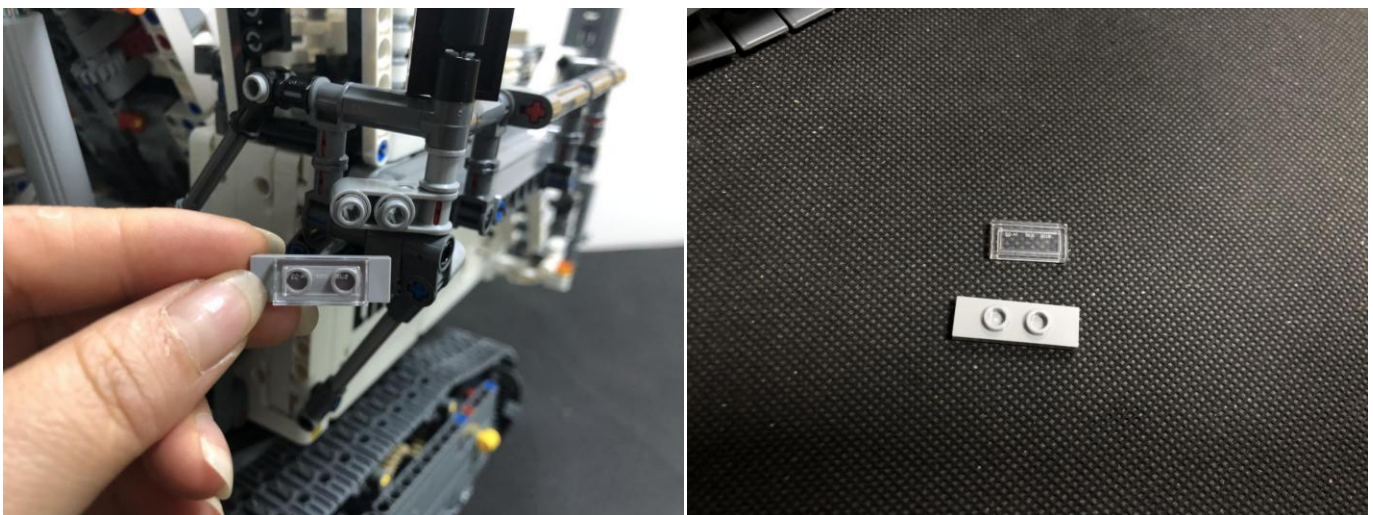
The components needs to be tested in this set is 6*Bit Lights-15CM-Warm White,9*Bit Lights-30CM-Warm White,2*LED Strip Lights-Red,4*LED Strip Lights-Warm White. Please contact us immediately if any components don't work.

Section C: laying out components following the instruction.

1. Start from installing lights for the railings outside the cockpit.



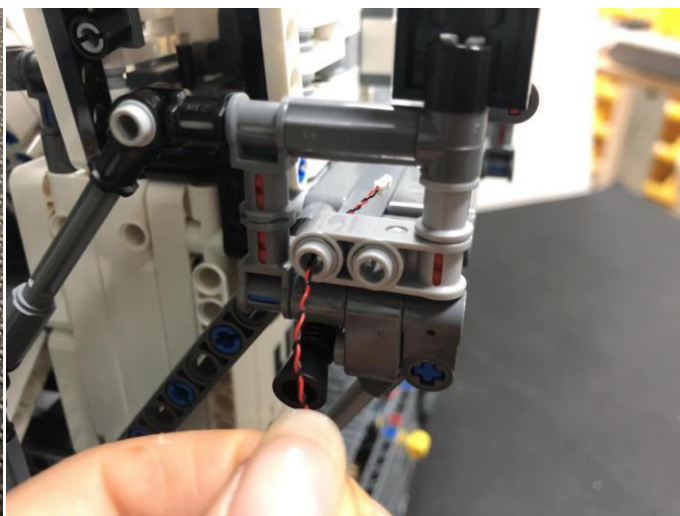
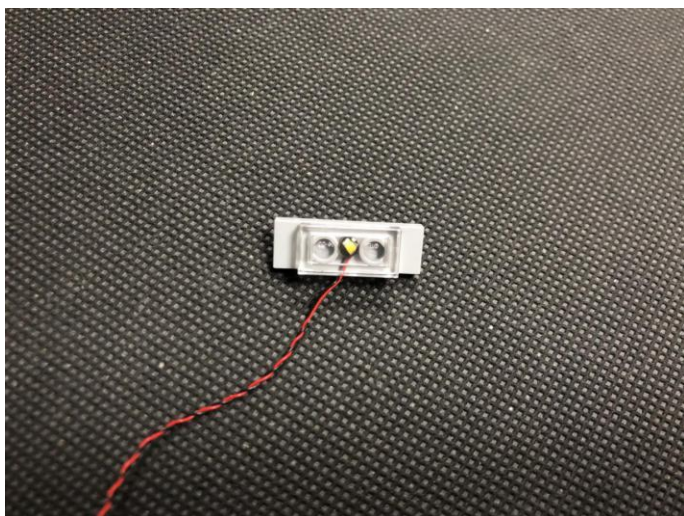
2. Remove the following piece, and disassemble it.



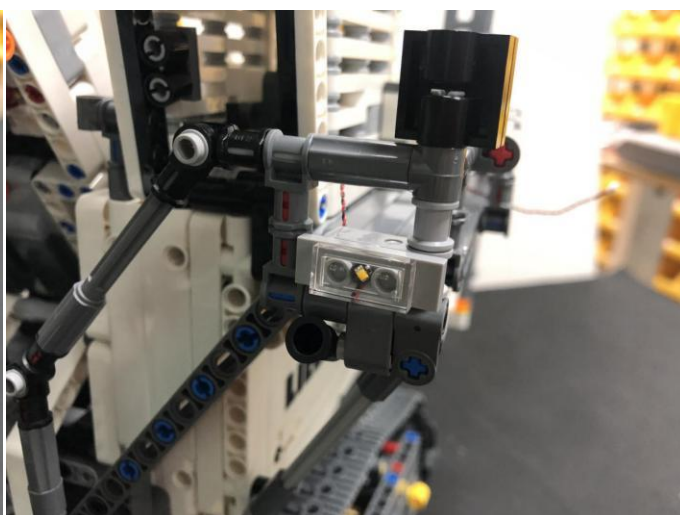
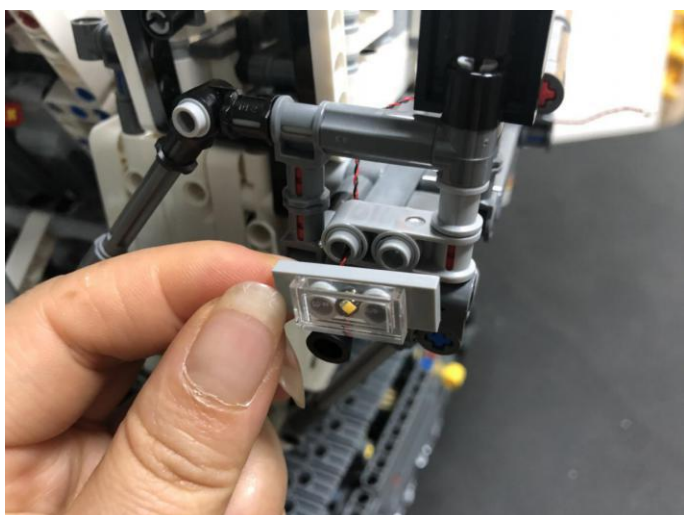
3. Take a warm white 15cm dot light, place the light between the 2 studs as per below.



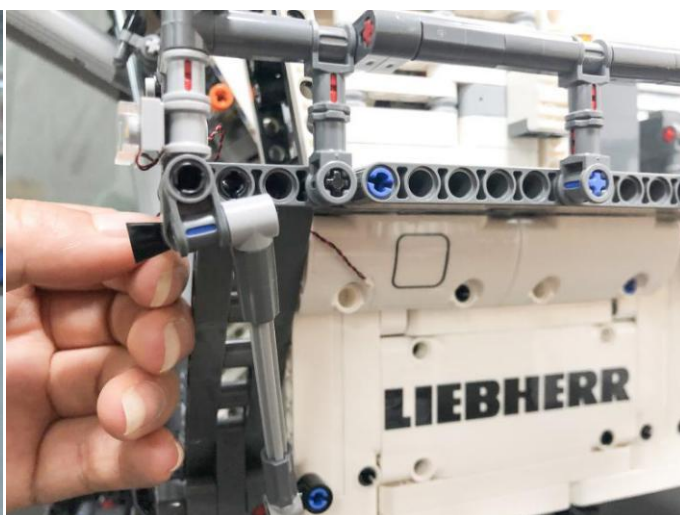
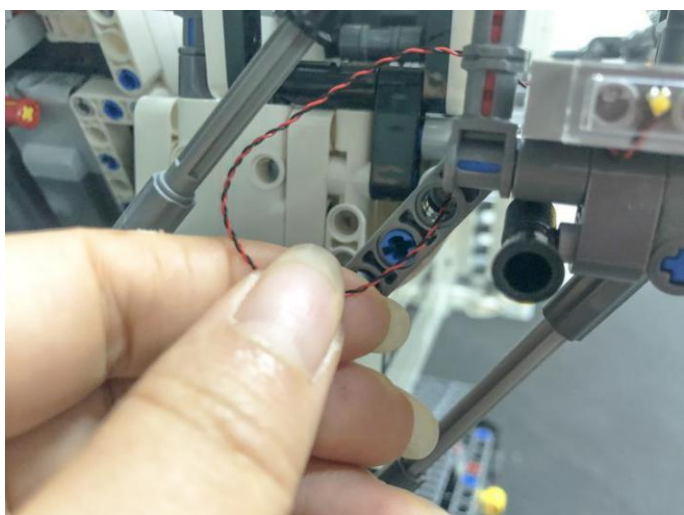
4.Reconnect the trans piece to secure the light, thread the cable through the following space.



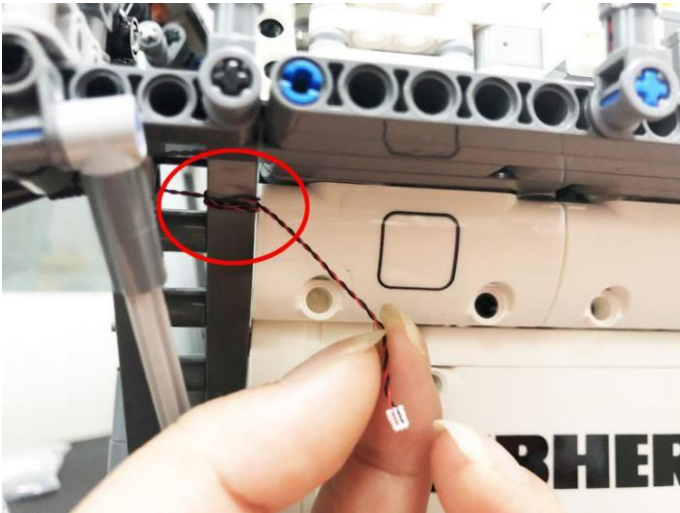
5.Reconnect the piece we removed.



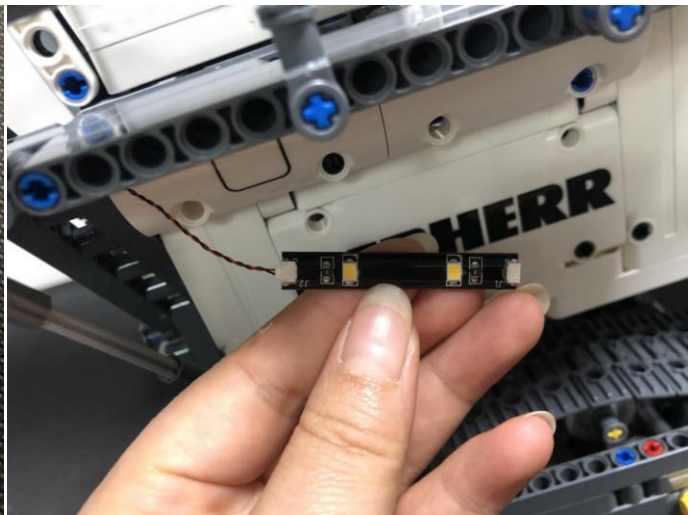
6.Thread the cable through the following space to the back as per below.



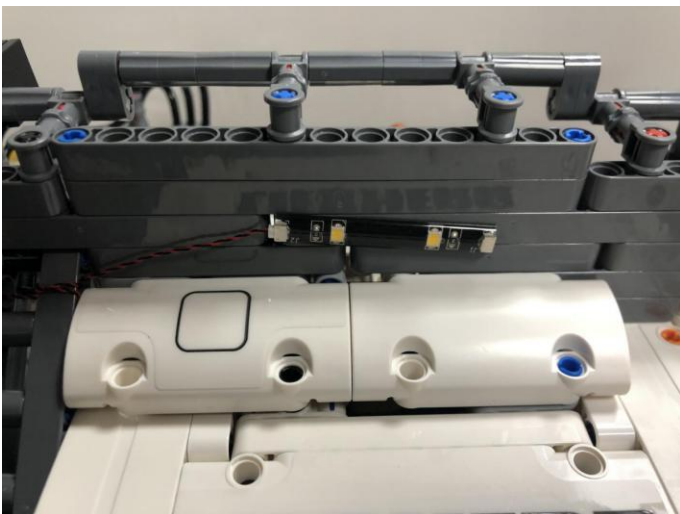
7. Wind excess cable around the following piece.



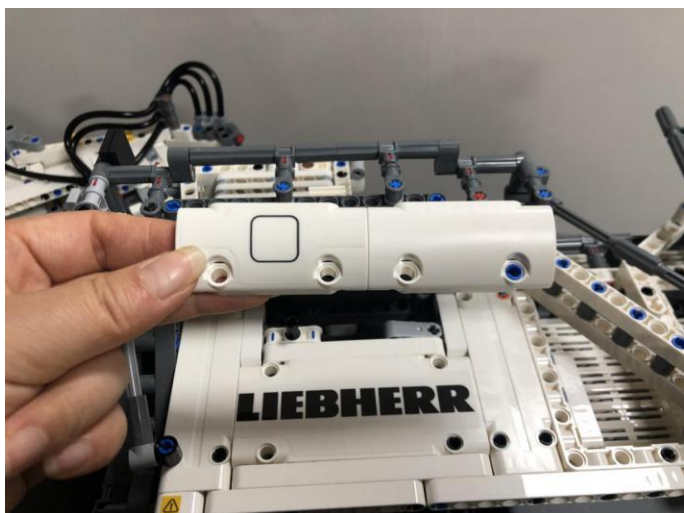
8. Take a warm white strip light, connect the connecting cable to it.



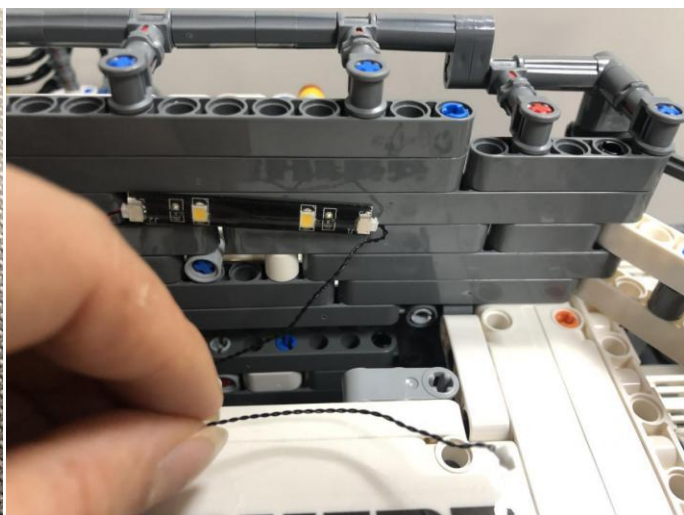
9. Stick the strip light to the following place.



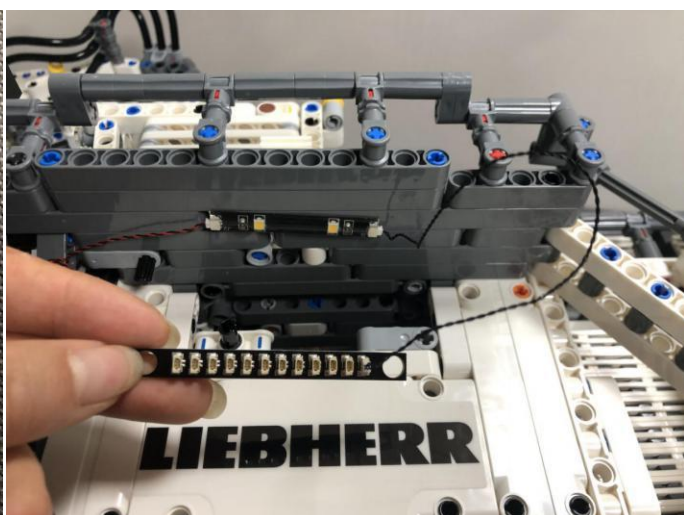
10.Remove the following piece.



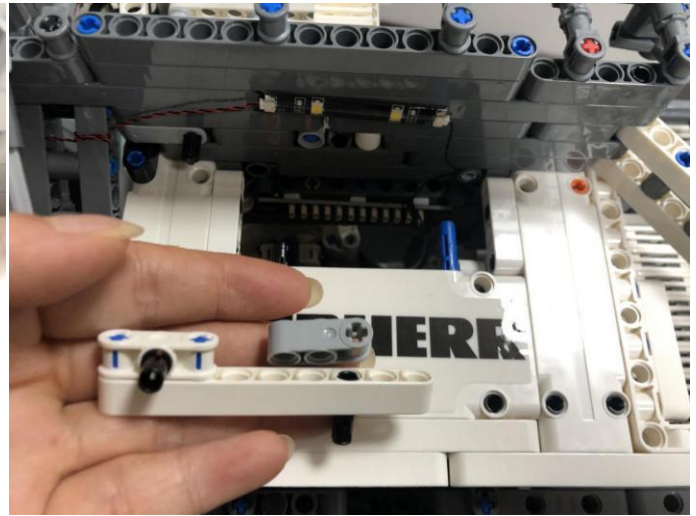
11.Take a 15cm connecting cable, connect it to the other end of the strip light.



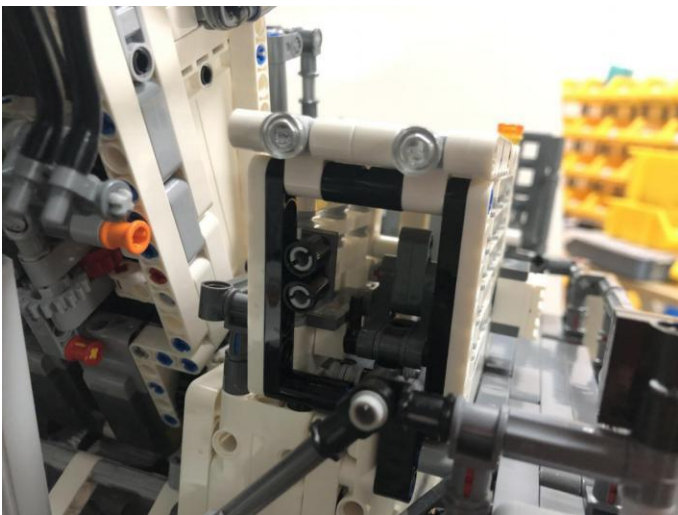
12.Take a 12-port expansion board, connect the connecting cable to it.



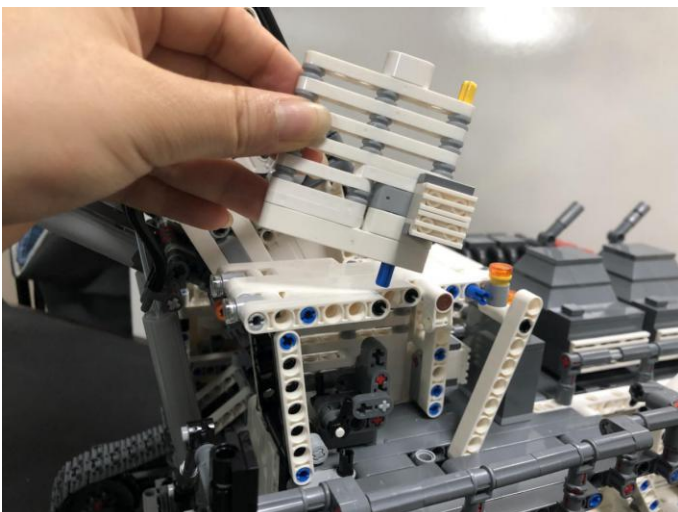
13. Stick the expansion board to the following place, remove the following piece.



14. Move onto installing lights for the cockpit



15. Remove the following wall.



16.Start from the following trans pieces.



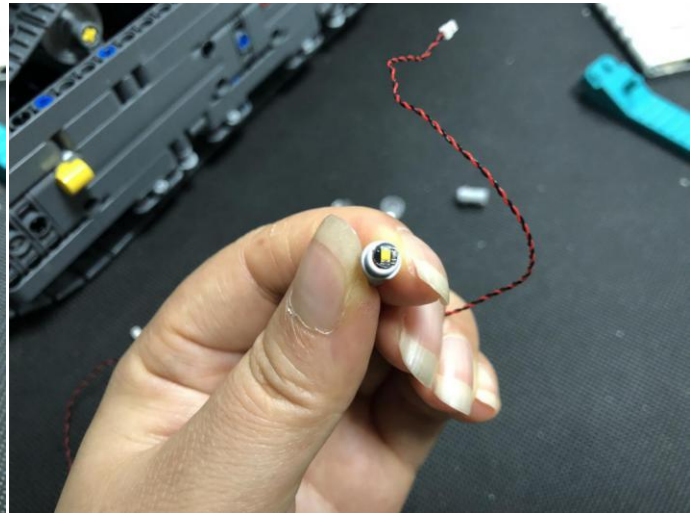
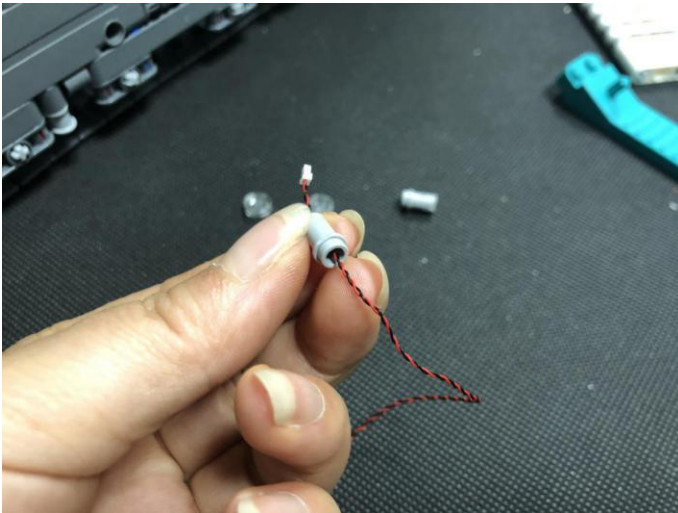
17.Remove the 2 pieces, and disassemble them.



18.Take 2 warm white 15cm connecting cables, 2 trans round 1x1 plates.



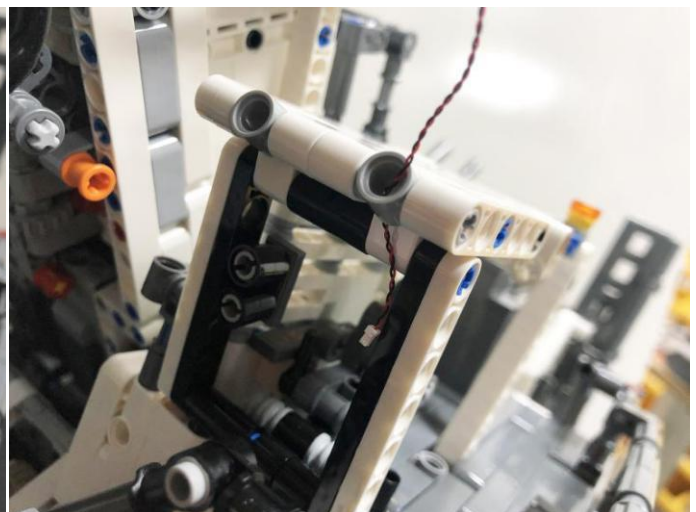
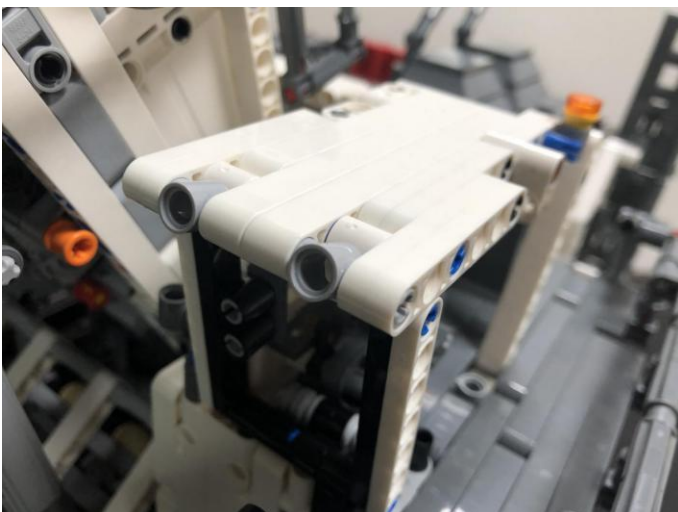
19. Thread the cable through the pin till the light is placed inside.



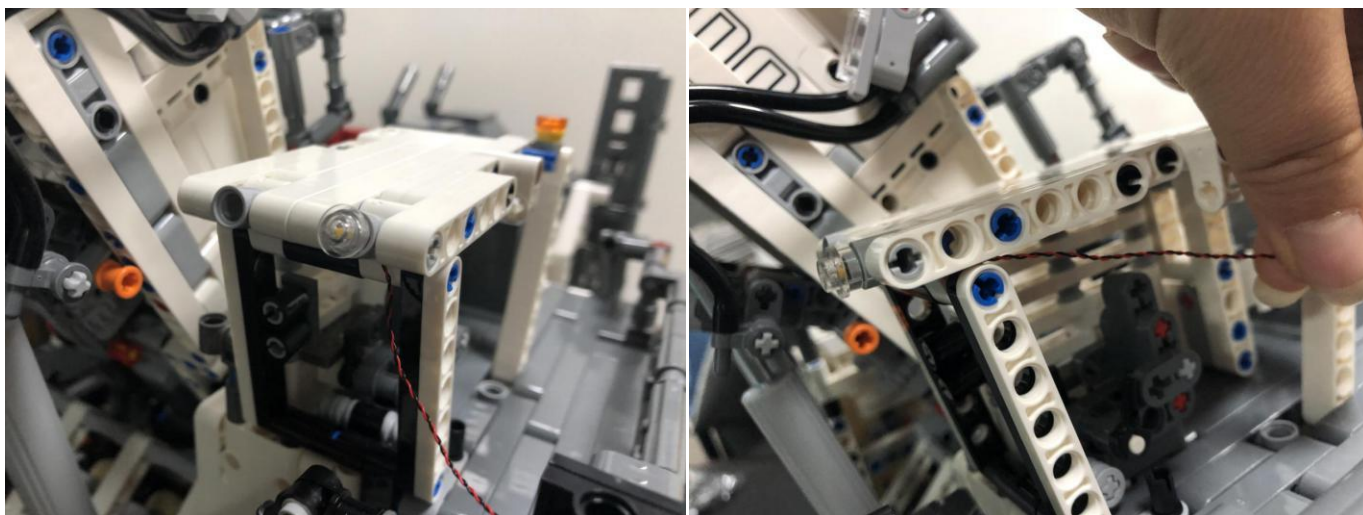
20. Secure the light with the trans 1x1 round plate as per below.



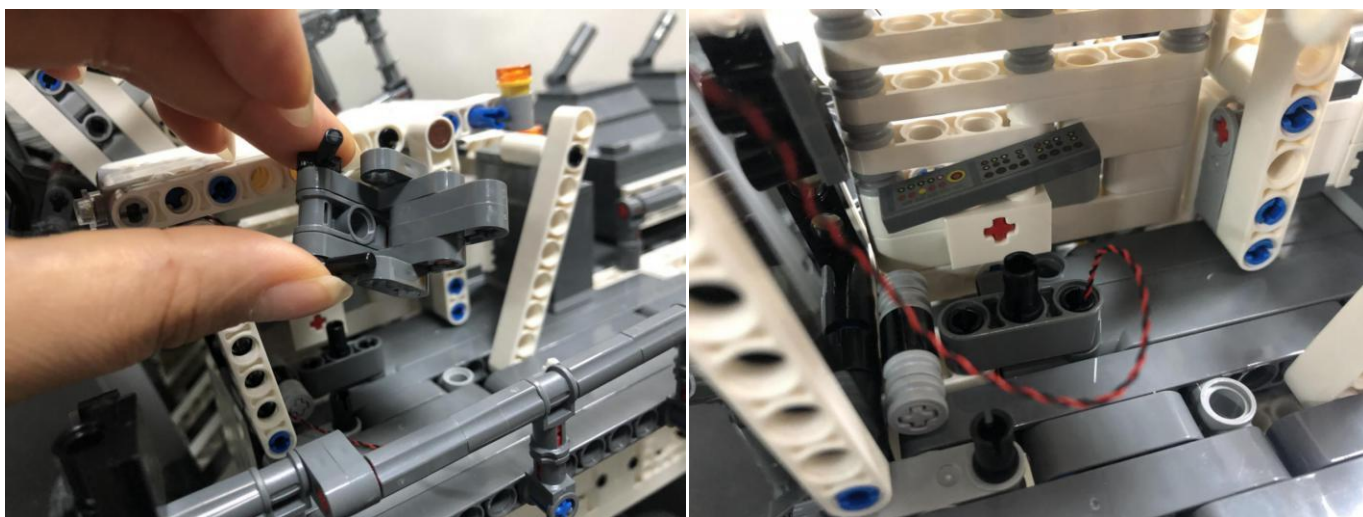
21. Lift the gray piece a lit (to help the cable thread through), thread the cable through the hole.



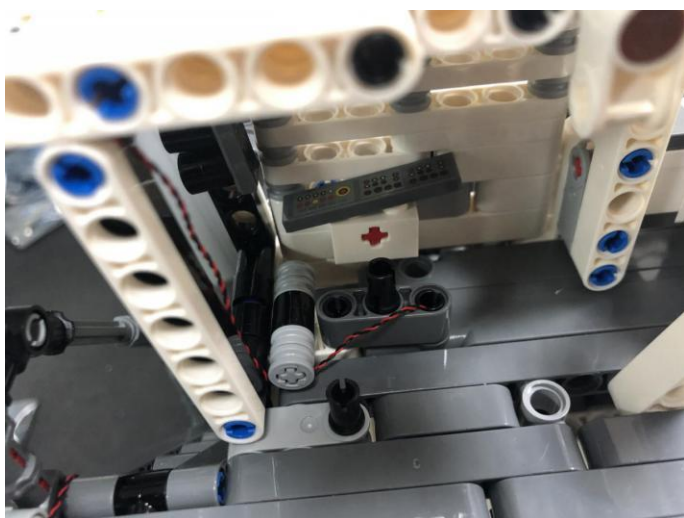
22.Reconnect the pin, pull the cable backward as per below.



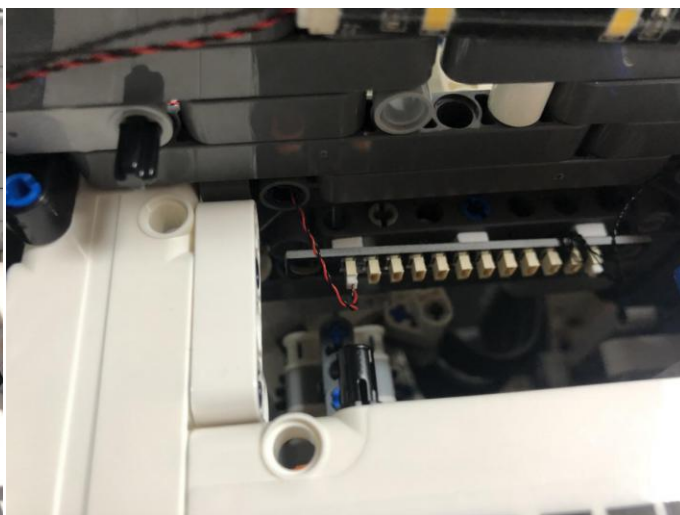
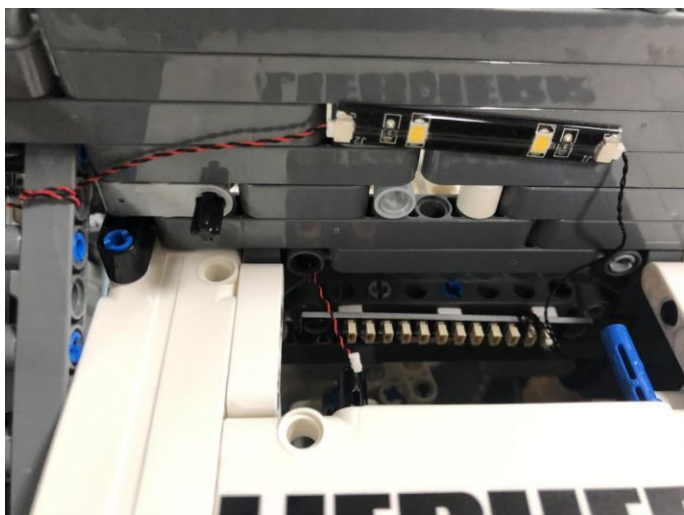
23.Remove the seat, thread the cable through the space underneath.



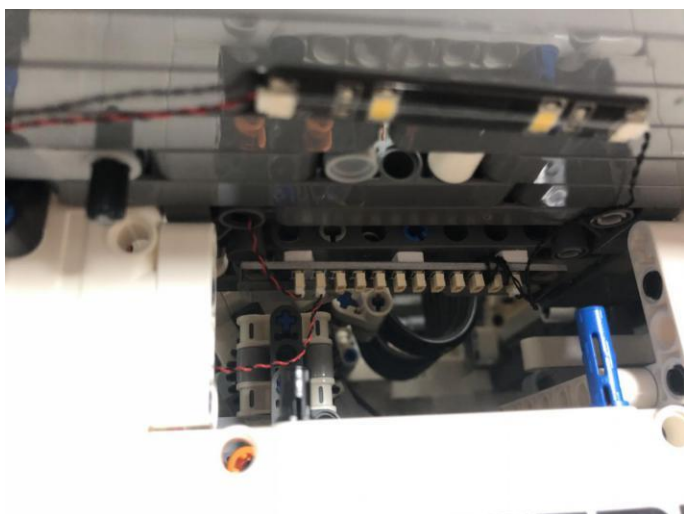
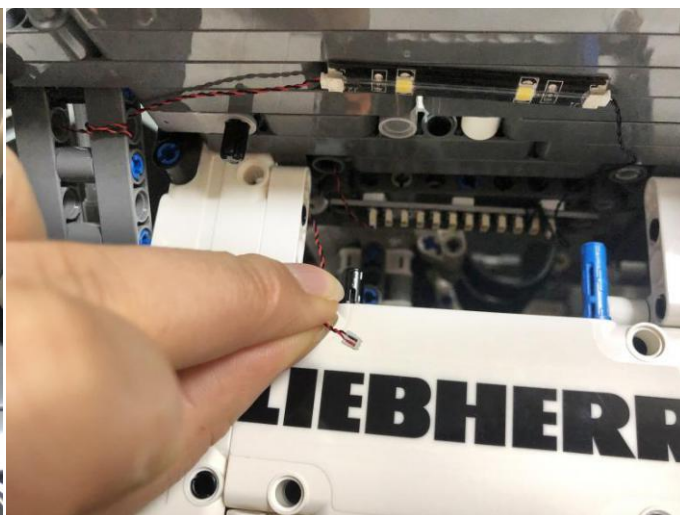
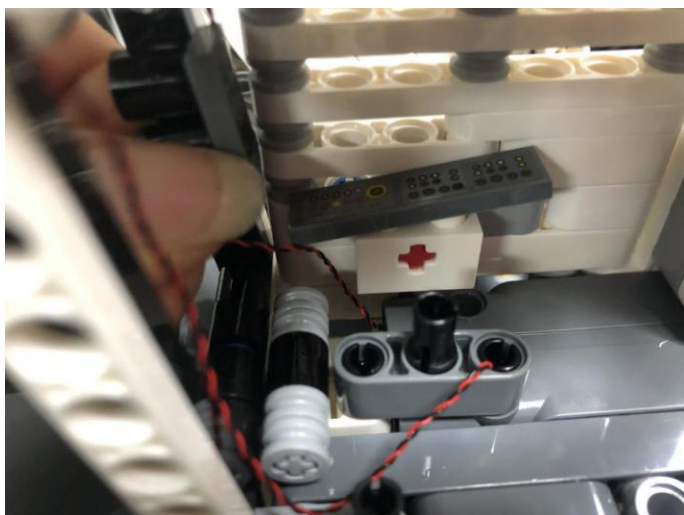
24.Place the cable underneath the light gray piece as per below.



25. Connect the cable to the expansion board as per below.



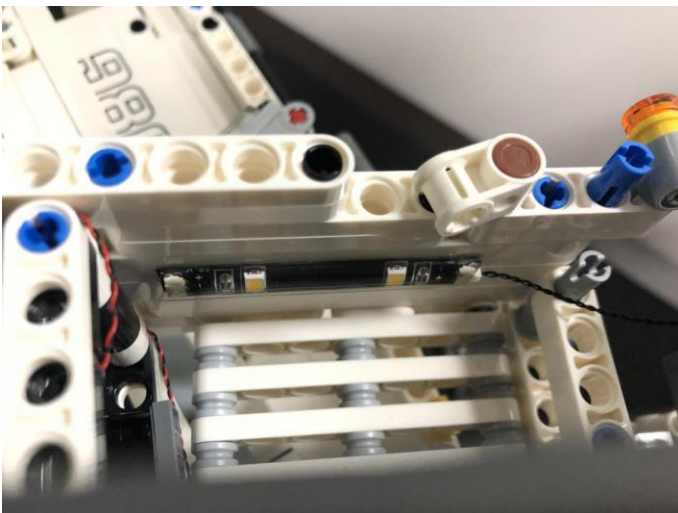
26. Repeat the steps above to install the other light, thread the cable through the space next to the wall, and connect the cable to the expansion board.



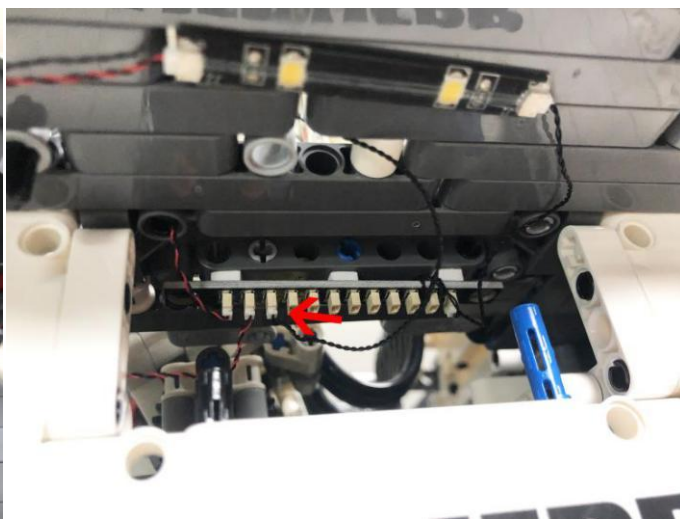
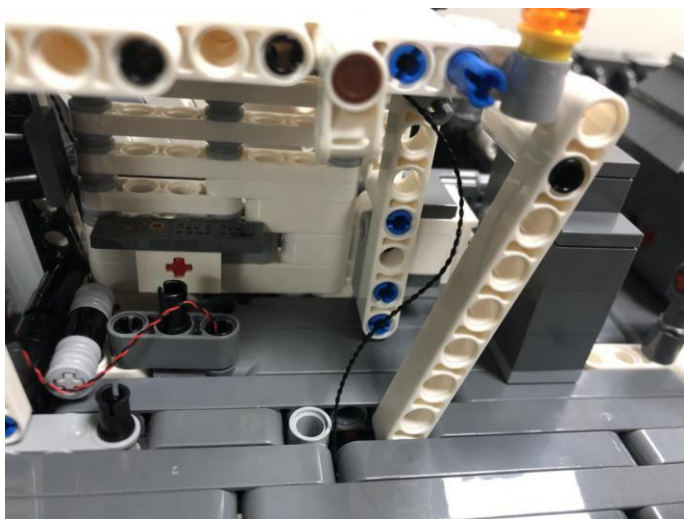
27. Take a warm white strip light, a 15cm connecting cable, connect the connecting cable to the strip light.



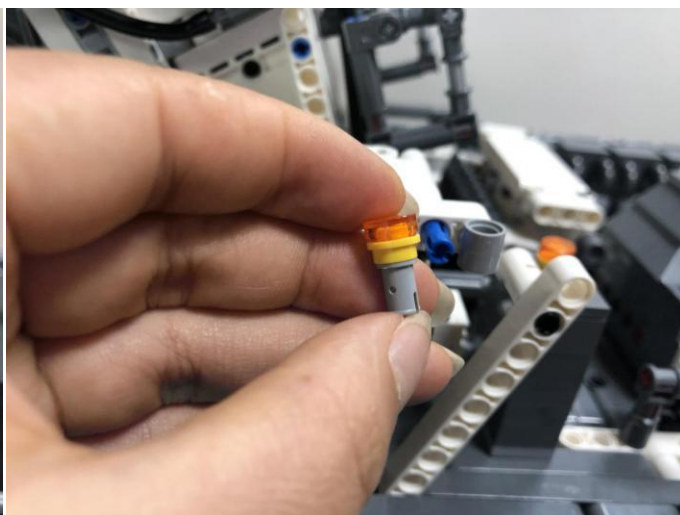
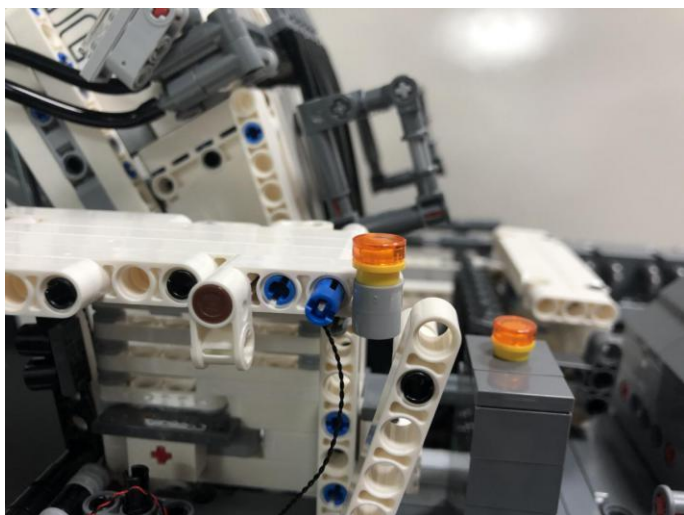
28. Stick the strip light to the roof of the control cabin. Pull the cable backward.



29. Thread the cable through the following space, and connect it to the expansion board.



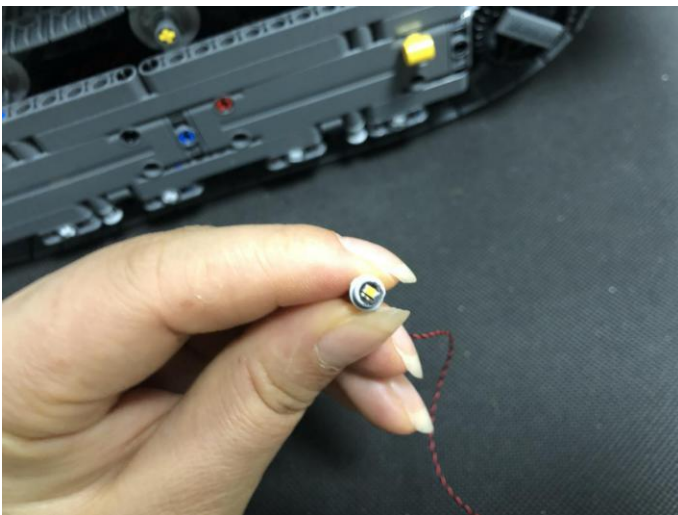
30. Continue to install light for the trans orange piece over the control cabin. Remove it.



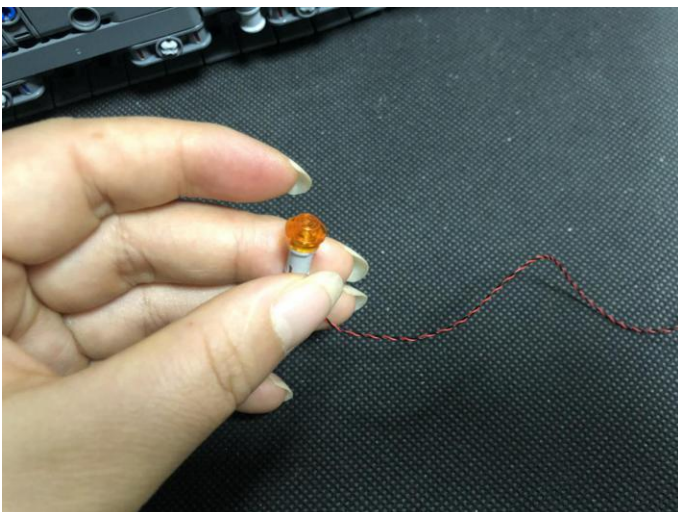
31. Disassemble it.



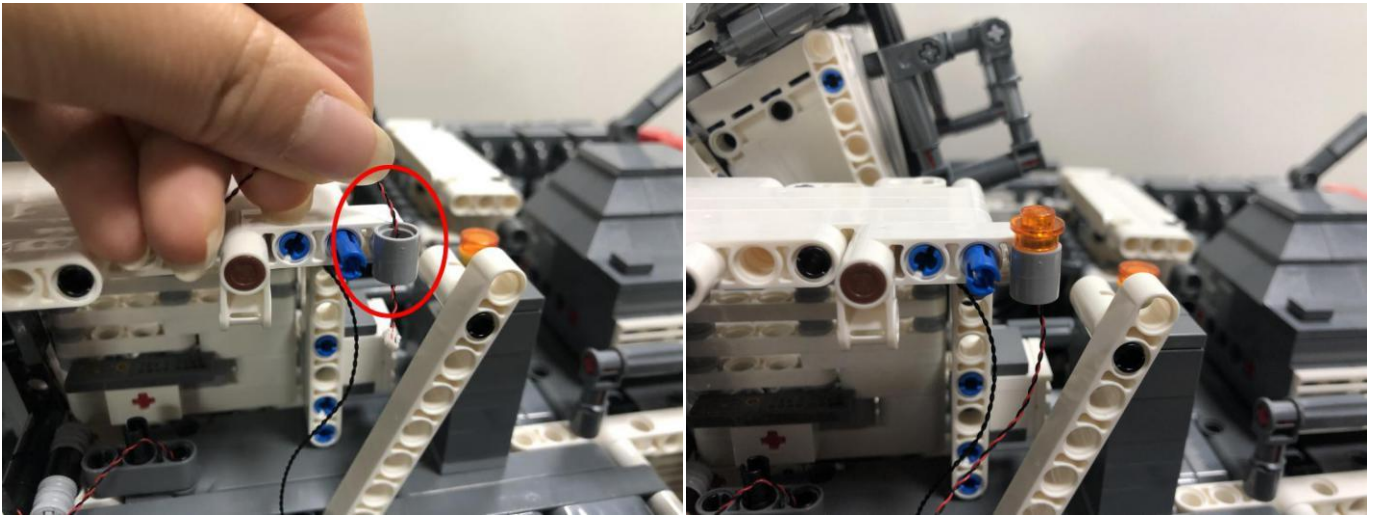
32. Take a warm white 15cm dot light, a trans orange 1x1 round plate, thread the cable through the following piece, pull the cable out till the light is placed inside.



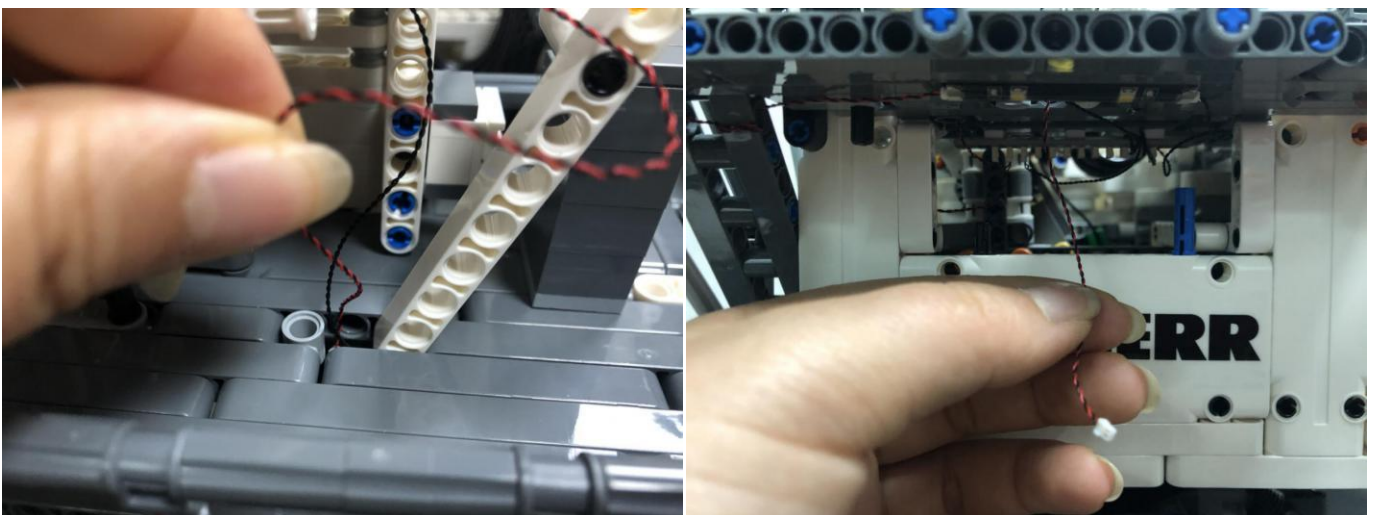
33. Secure the light with the trans orange round plate.



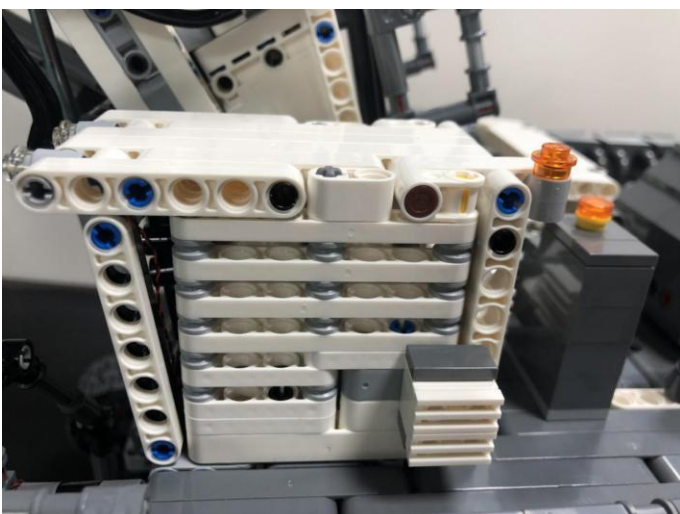
34. Thread the cable through the following gray piece, reconnect the pin.



35. Thread the cable through the following space to the bottom.



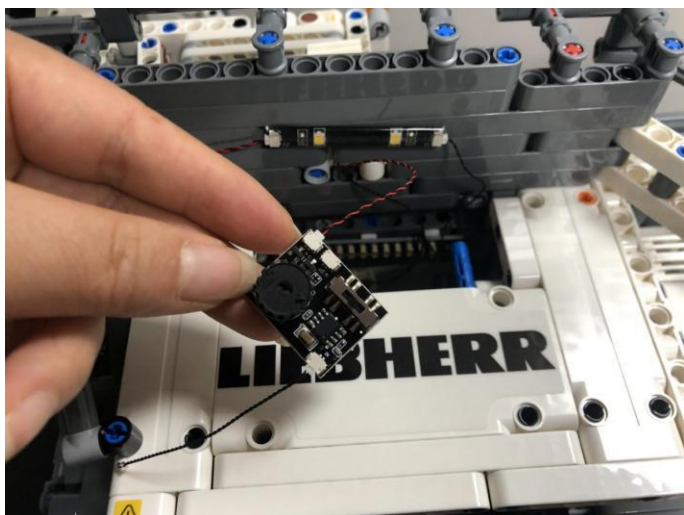
36. Reconnect the wall.



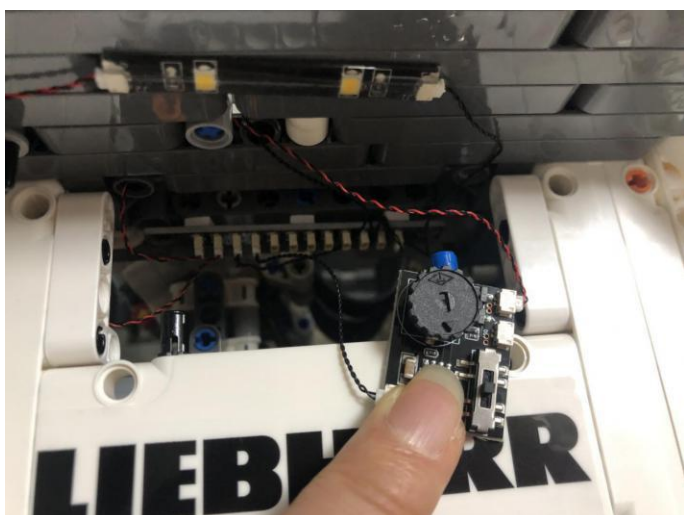
37. Take a Multi Effects Board, a 15cm connecting cable, connect the connecting cable to the power port on the Multi Effects Board.



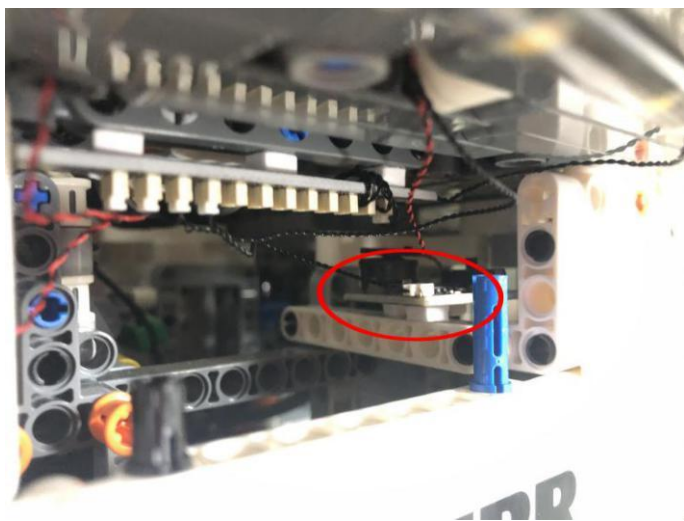
38. Connect the cable from the orange piece to the following port on the Multi Effects Board.



39. Connect the cable to the expansion board as per below.



40. Stick the Multi Effects Board to the following place with adhesive squares.



41. Continue to install light for the following dark gray box, remove and disassemble it as per below.



42. Take a warm white 15c dot light, a trans orange 1x1 round plate, place the light on the yellow round 1x1 plate, secure the light with trans orange round plate.

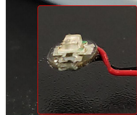


Tips

The plate without slit:

The plate without slit:

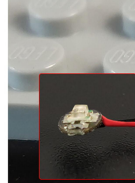
The squeeze causes the protective layer of the wire to be torn apart, the positive and negative wires touch together, and the set is short-circuited and the hot or wire is crushed, the wire to be disconnected and don't work.



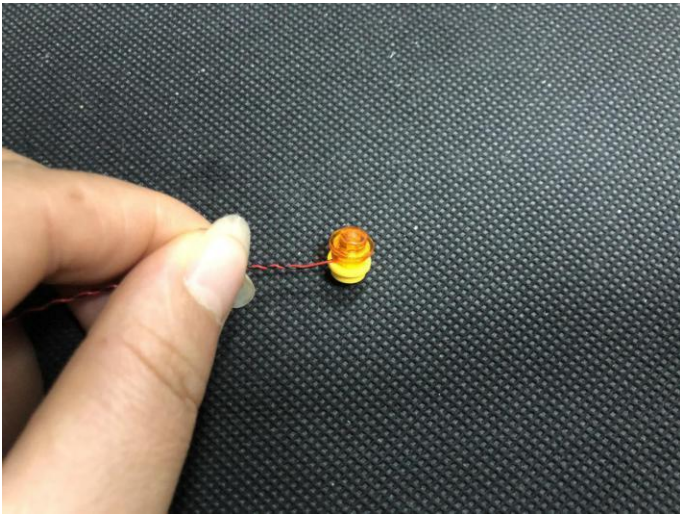
The plate with slit:

The plate with slit:

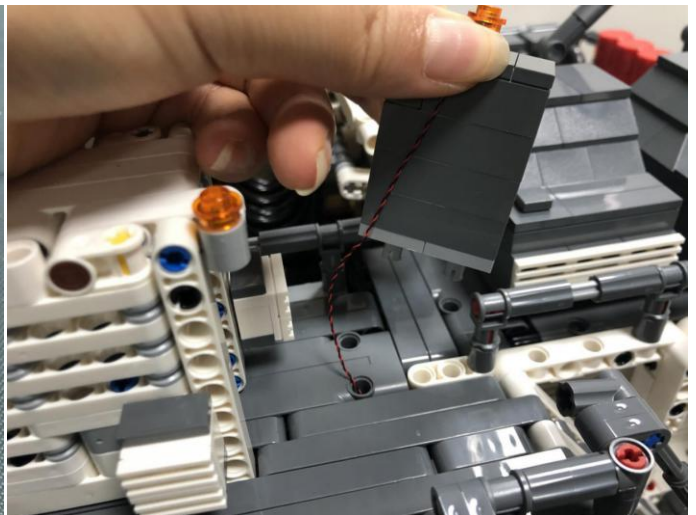
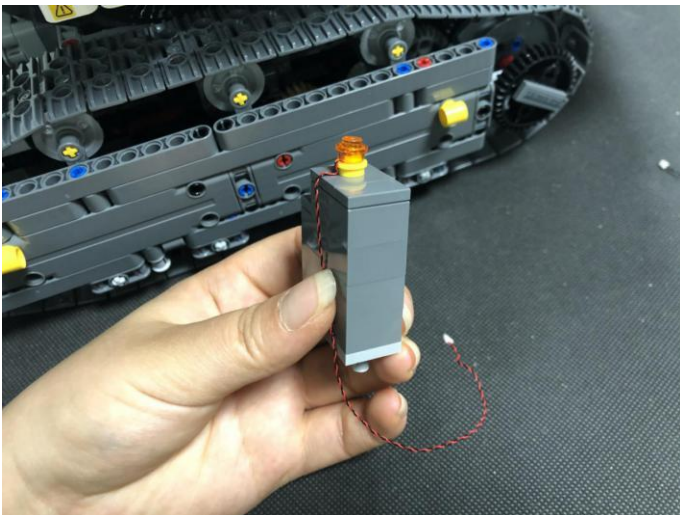
The wire has enough space to avoid being squeezed endowed with longer service life and more stable effect.



The slit on the the plate round 1X1 are hand-made to avoid squeeze the wire and cause short circuit and abnormal heat during installation.



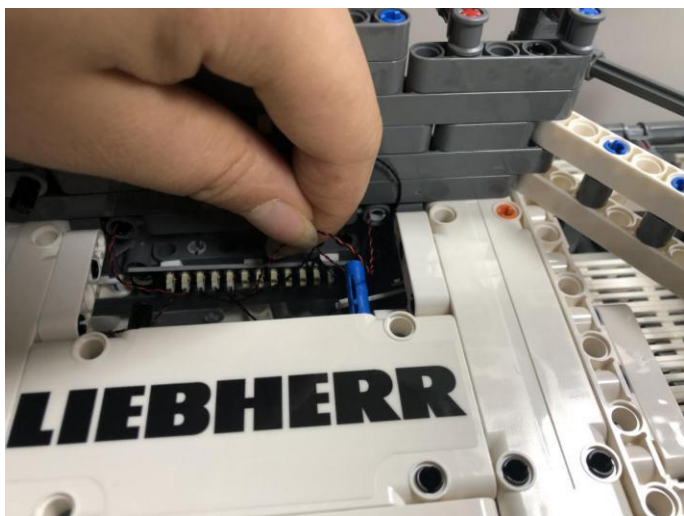
43.Reconnect the light back to the box, thread the cable through the following space underneath the box.



44.Reconnect the box.



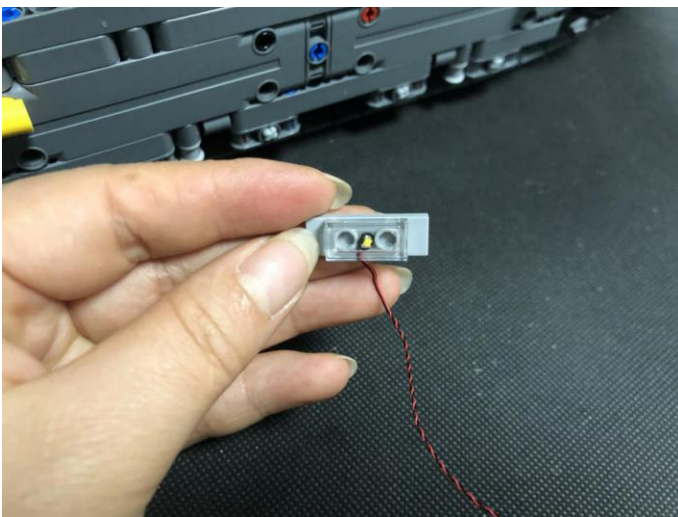
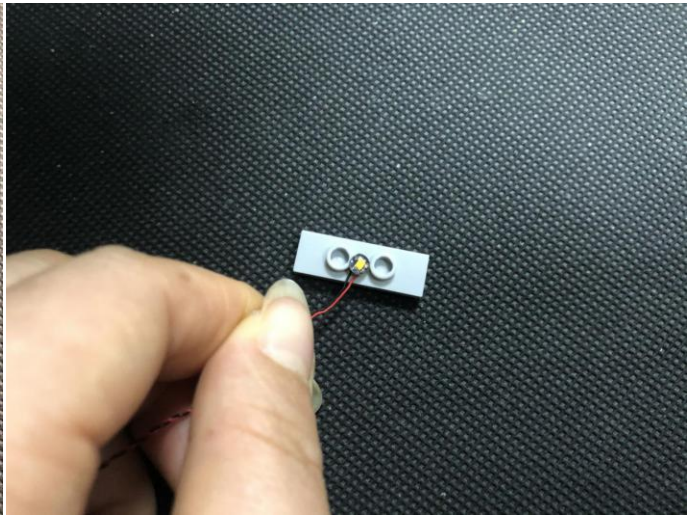
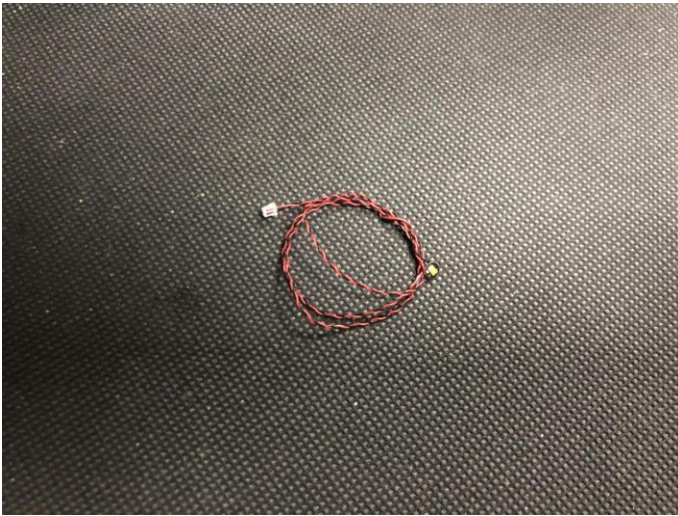
45. Turn the car over to its side, connect the cable of the light to the expansion board as per below.



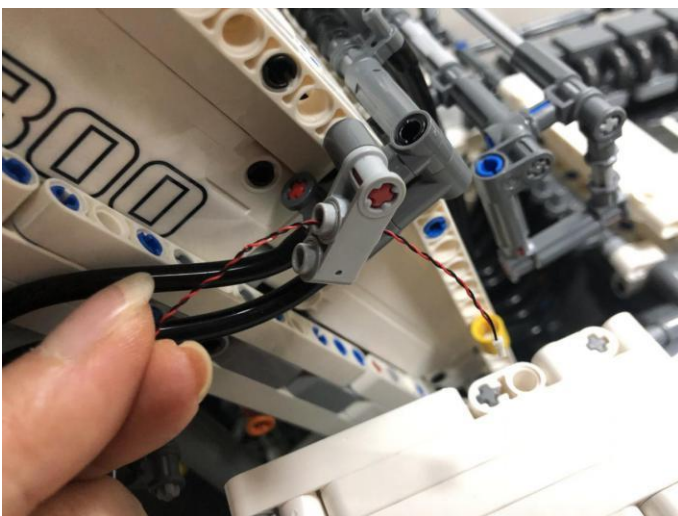
46. Continue to install light for the following trans piece, remove the piece and disassemble it.



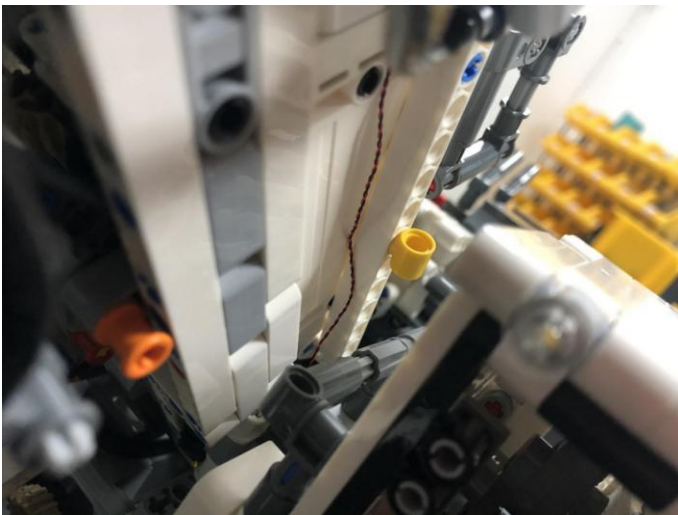
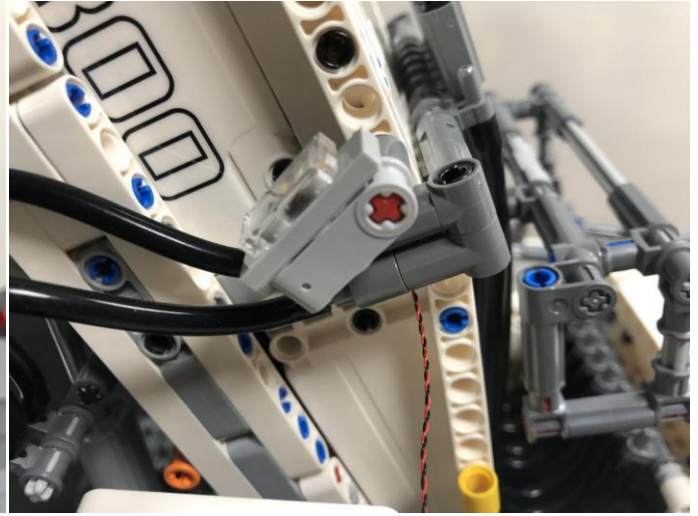
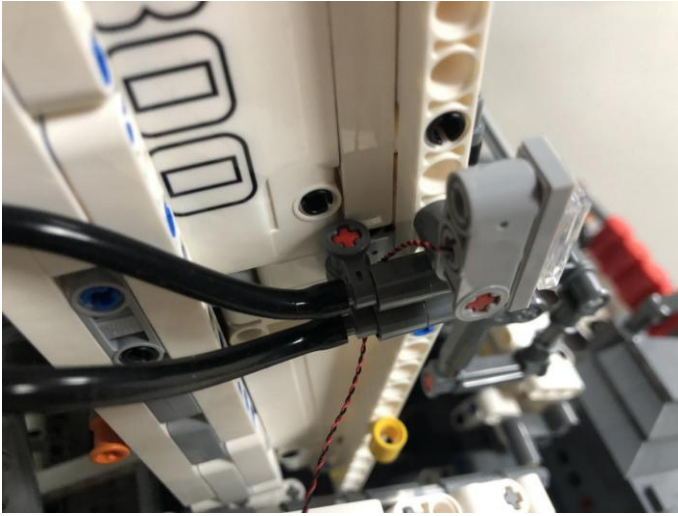
47. Take a warm white 30cm dot light, place it between the 2 studs, secure the light with the trans piece.



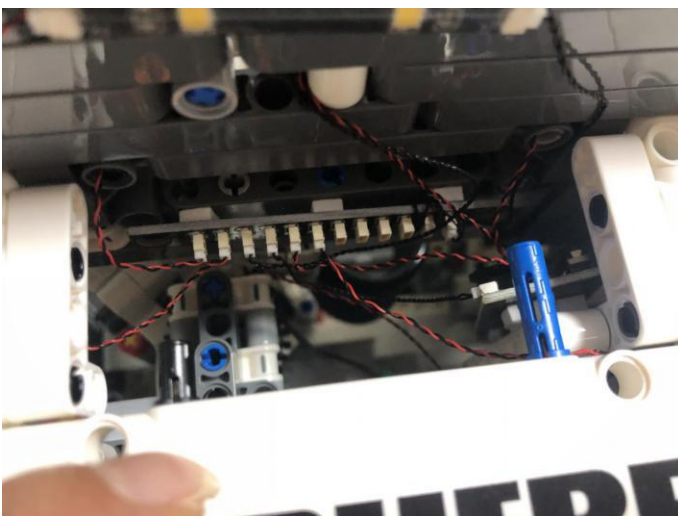
48. Thread the cable through the following space, reconnect the box.



49. Thread the cable to the inner side, pull it downward, in case of interfering the excavator, do not thread the cable through any holes.



50. Connect the cable to the expansion board.



51. Take a 30cm connecting cable, connect it to the expansion board.



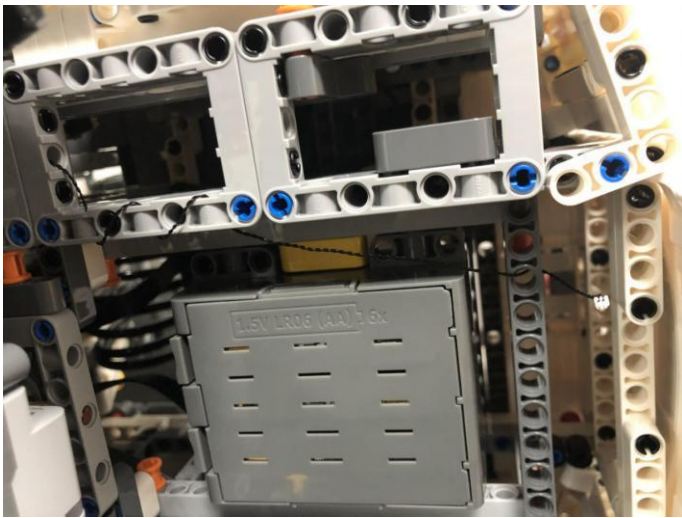
52. Pull the connecting cable to the back of the excavator.



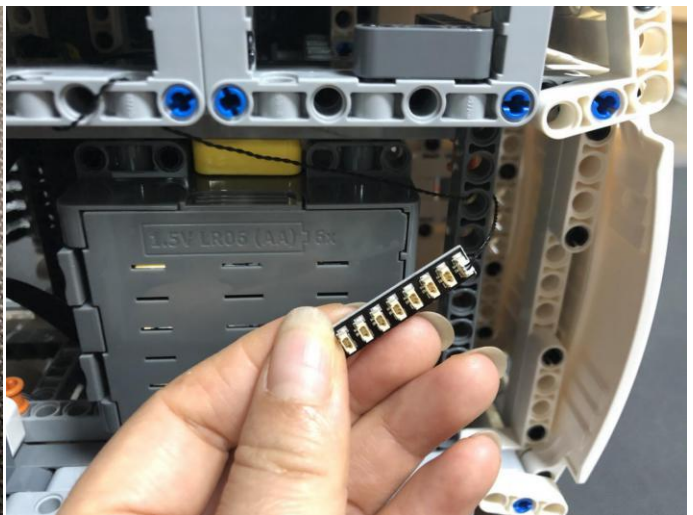
53. Thread the cable through the following spaces.



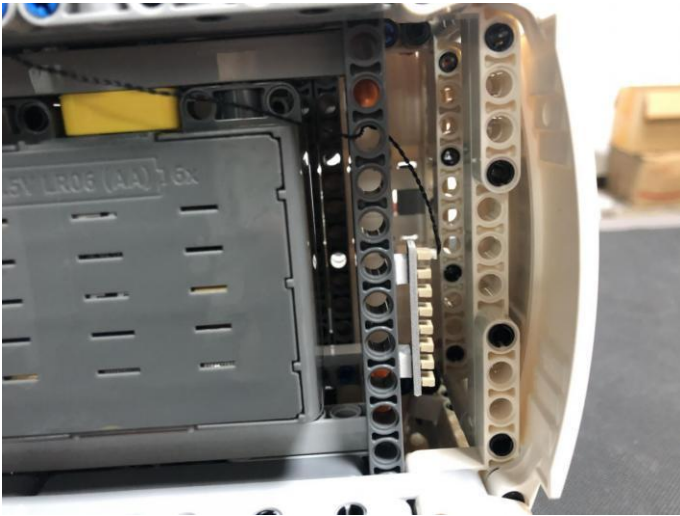
54. Continue to place the cable as per below, pull the cable to the back of the battery pack.



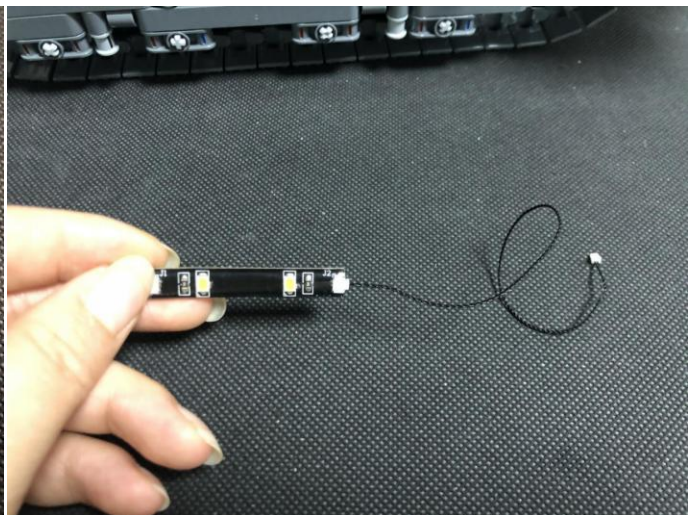
55. Take an 8-port expansion board, connect the connecting cable to it.



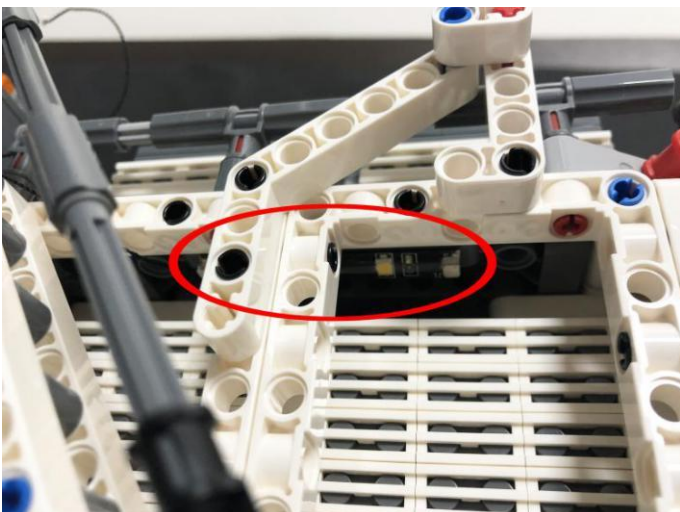
56. Stick the expansion board to the following place with adhesive squares.



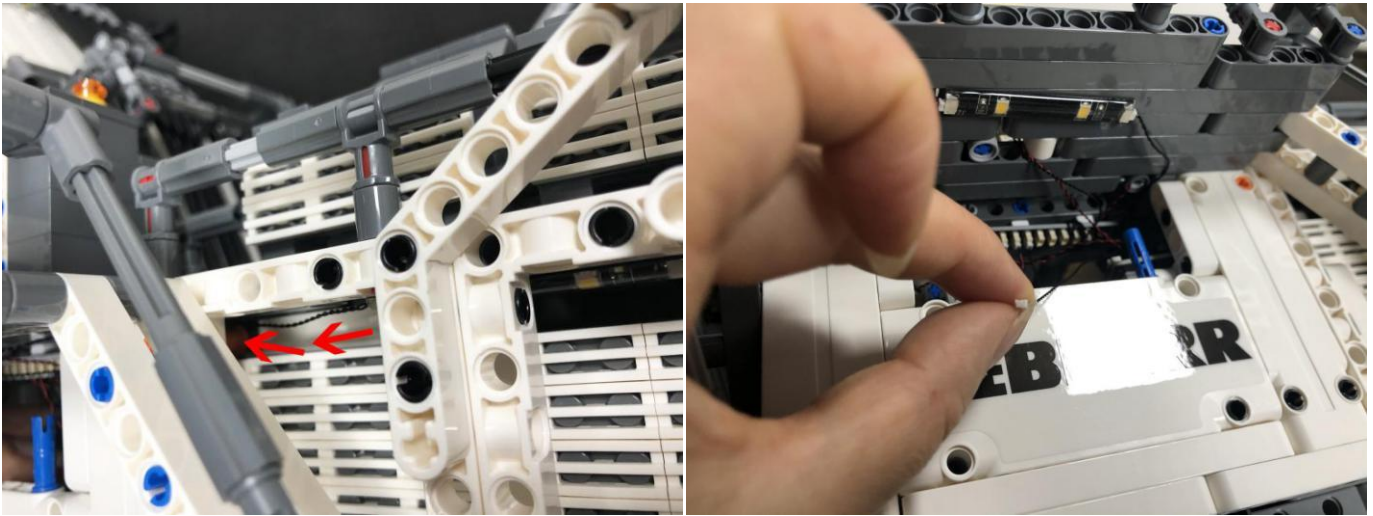
57. Take a warm white strip light, a 15cm connecting cable, connect the connecting cable to the strip light.



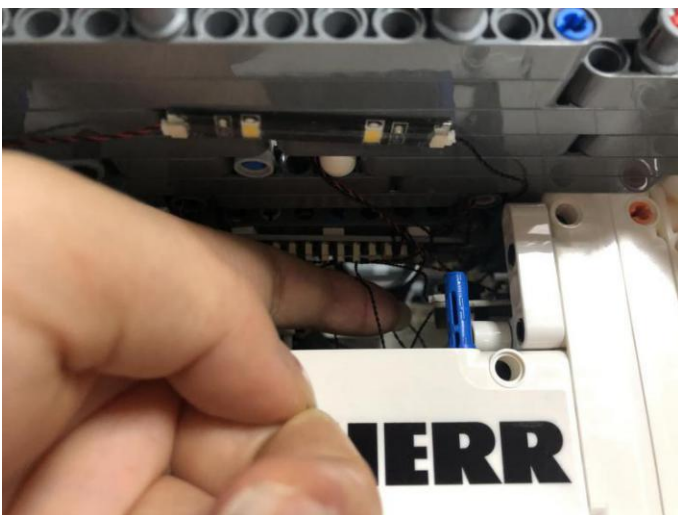
58. Stick the strip light to the following place next to the stairs.



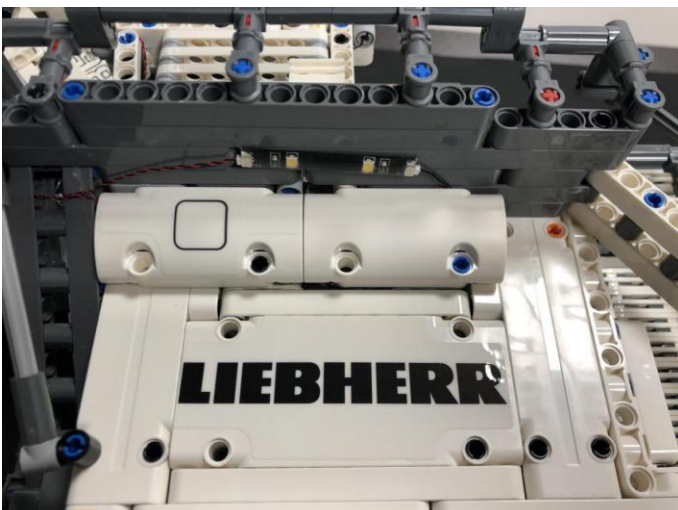
59. Place the connecting cable from the strip light as per below, pull it toward the 12-port expansion board.



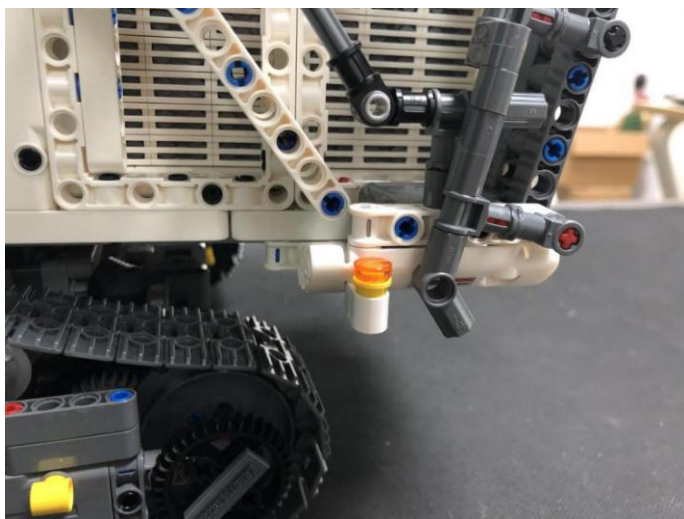
60. Connect the connecting cable to the expansion board.



61. Reconnect the pieces we removed before.



62. Move onto installing lights for the following trans orange piece, remove the piece.



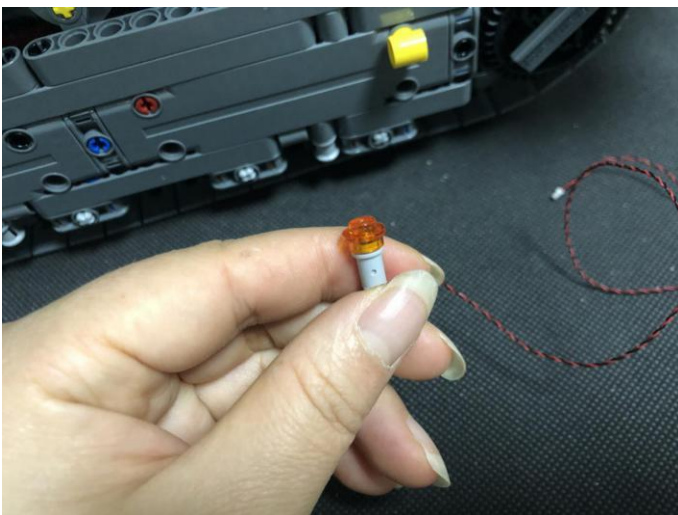
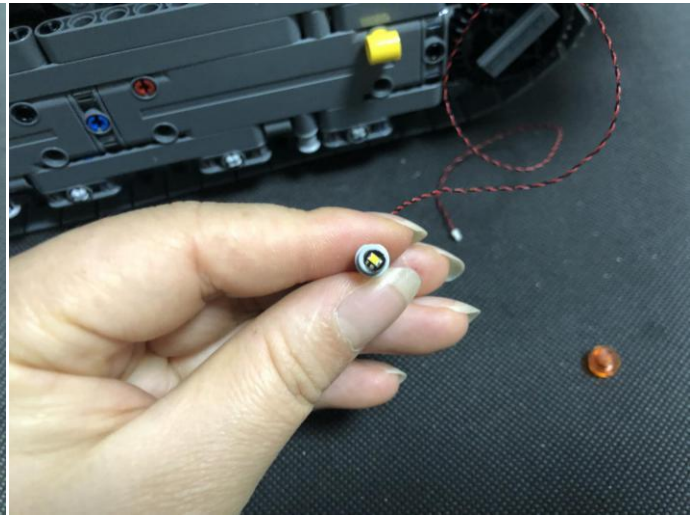
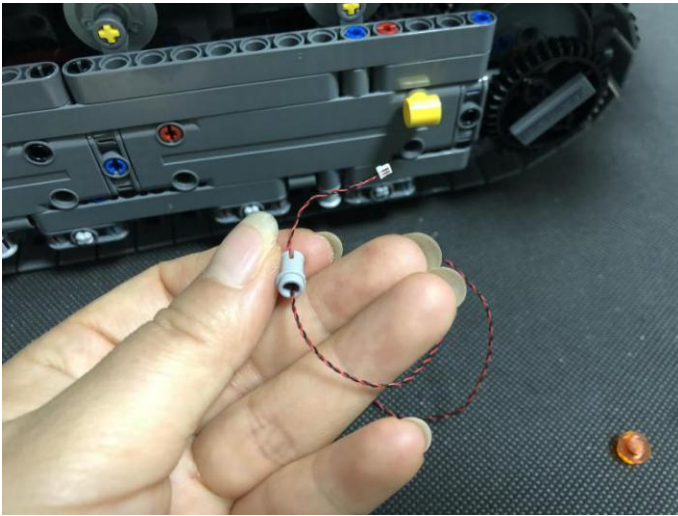
63. Disassemble the piece.



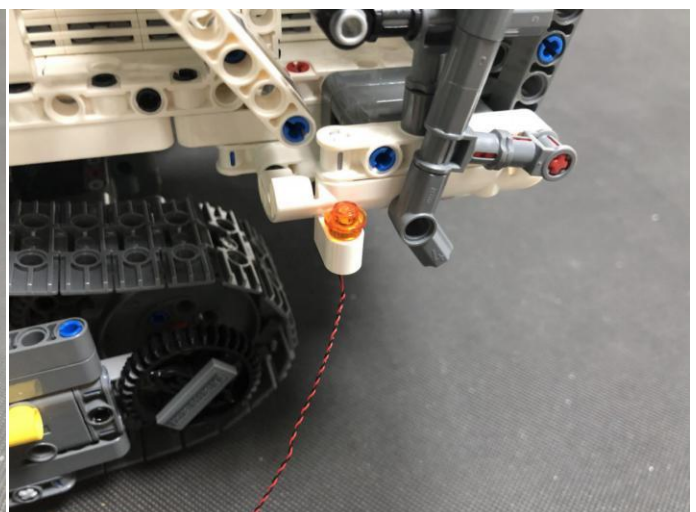
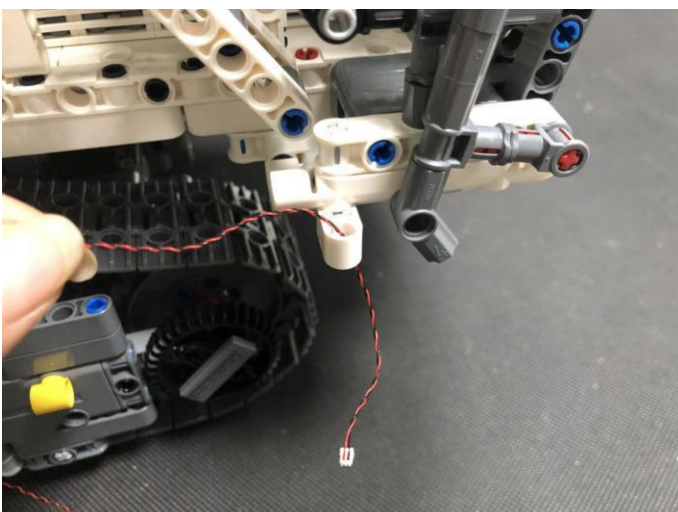
64. Take a warm white 30cm dot light, a trans orange 1x1 round plate.



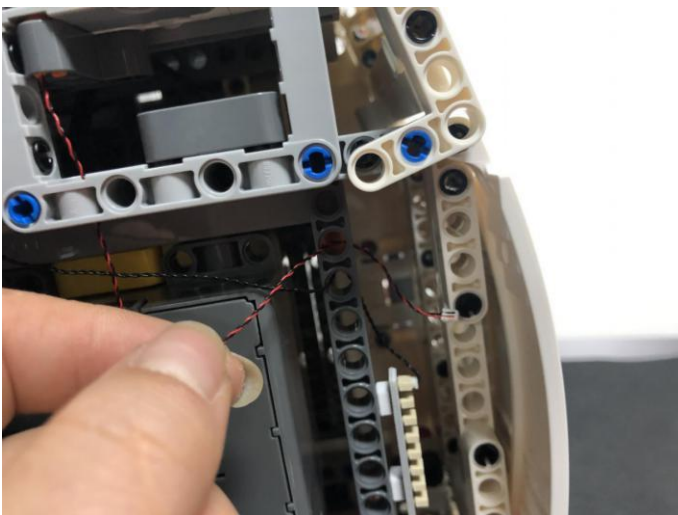
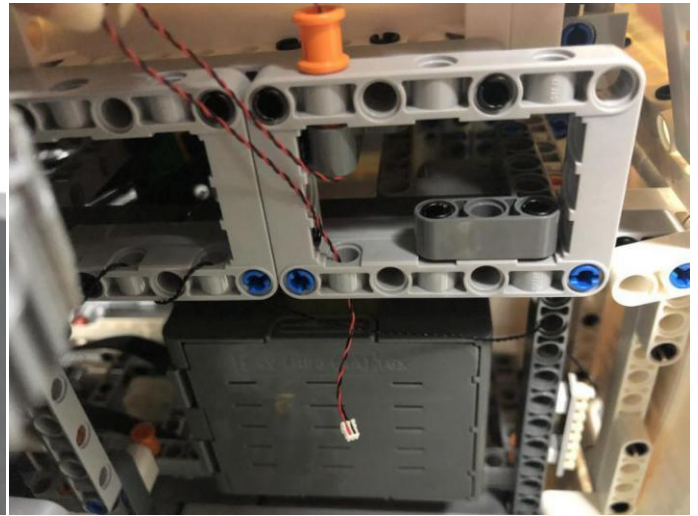
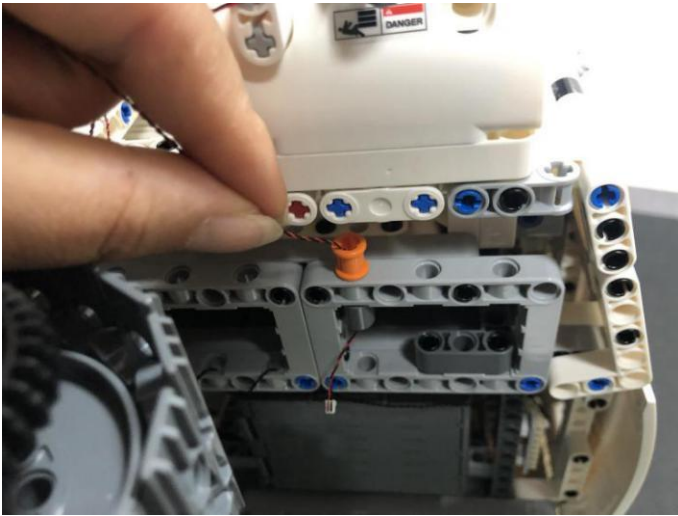
65. Thread the cable through the pin, pull the cable out till the light is placed inside, secure the light with the trans orange plate.



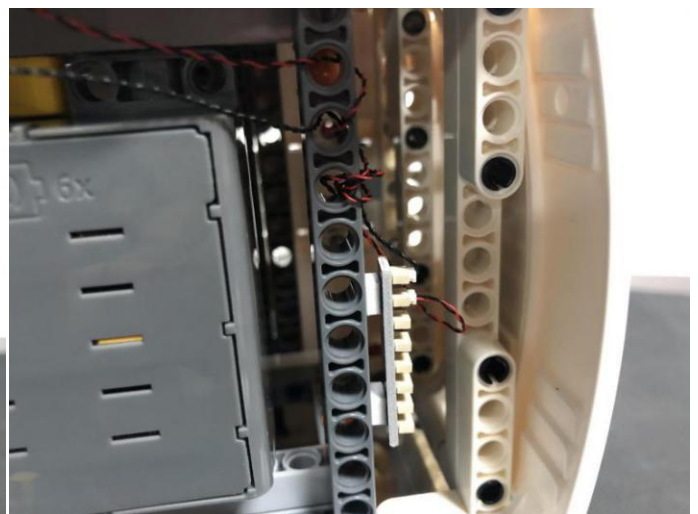
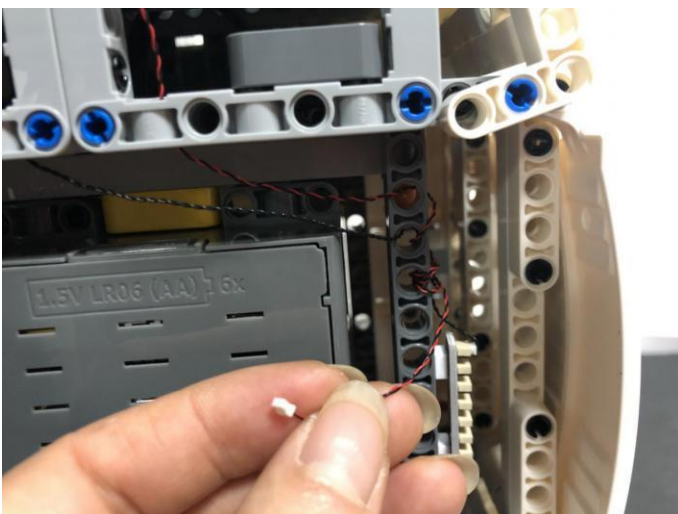
66. Thread the cable through the following spaces, reconnect the pieces we removed before.



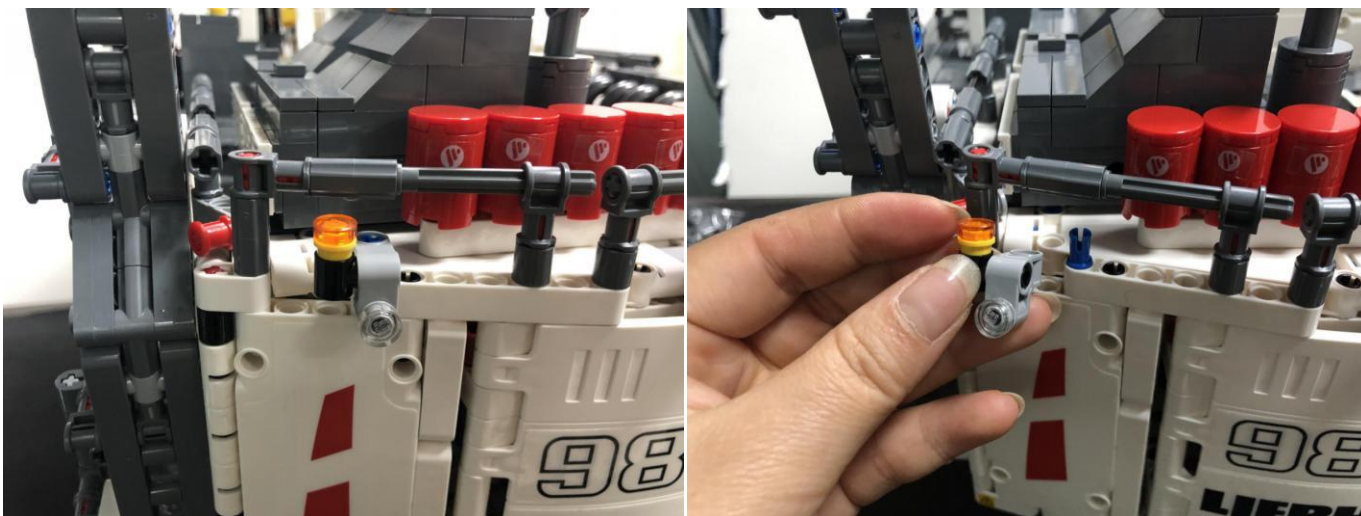
67. Turn the excavator to its side, thread the cable through the orange piece, and continue to thread it through the following spaces.



68. Tuck excess cable before connect it to the expansion board.



69. Continue to install lights at the back of the excavator, remove the following piece.



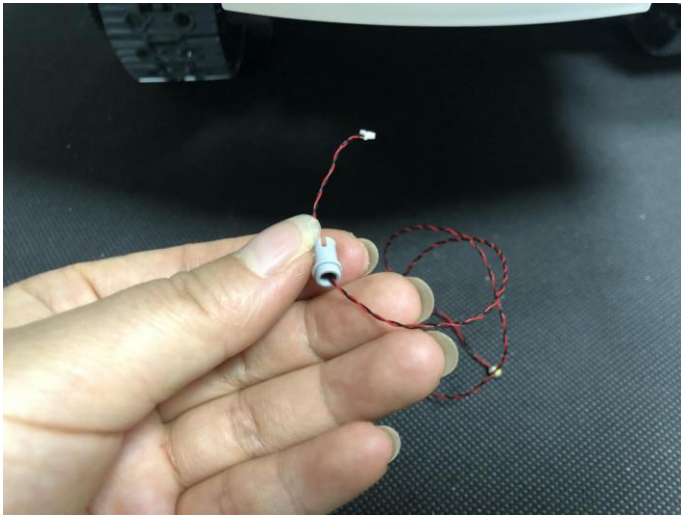
70. Remove the following piece and disassemble it.



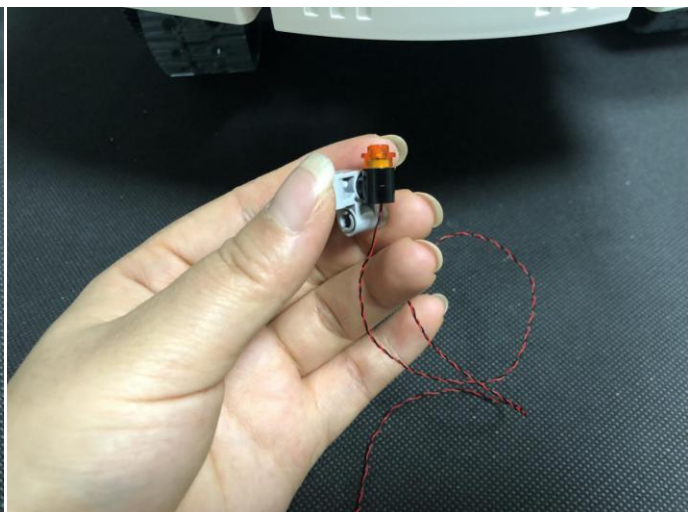
71. Take a warm white 30cm dot light, a trans orange 1x1 round plate.



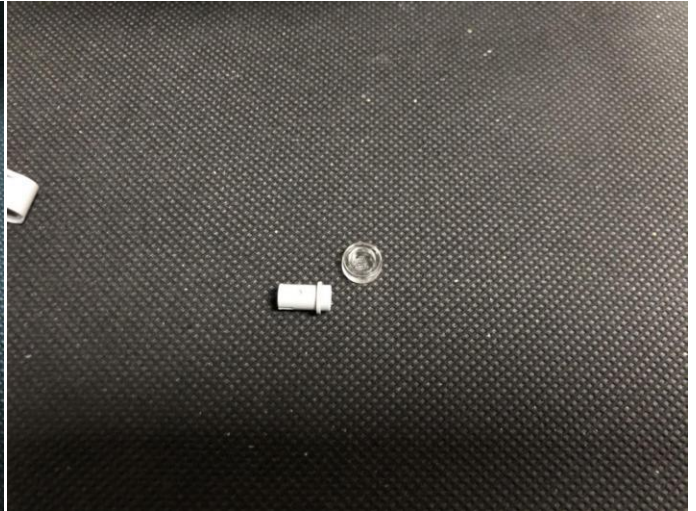
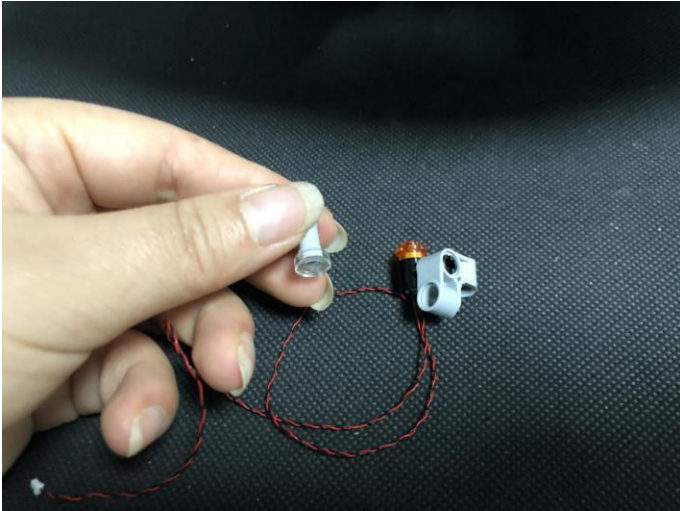
72. Thread the cable through the pin, pull the cable till the light is placed inside, secure the light with trans orange plate.



73. Thread the cable through the following black piece, reconnect the piece we removed before.



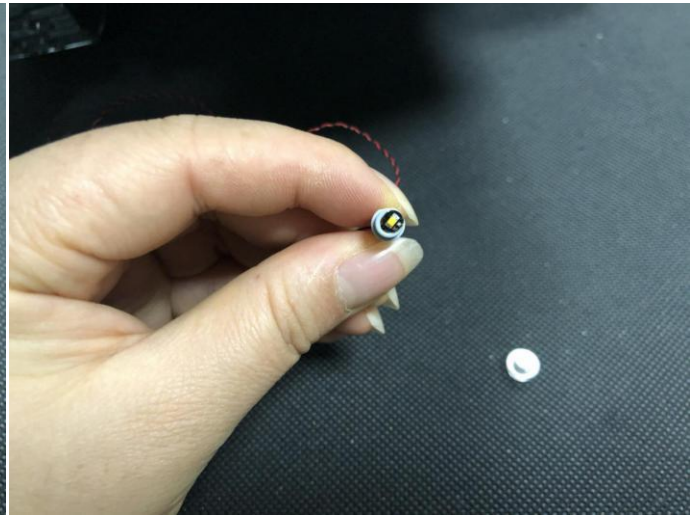
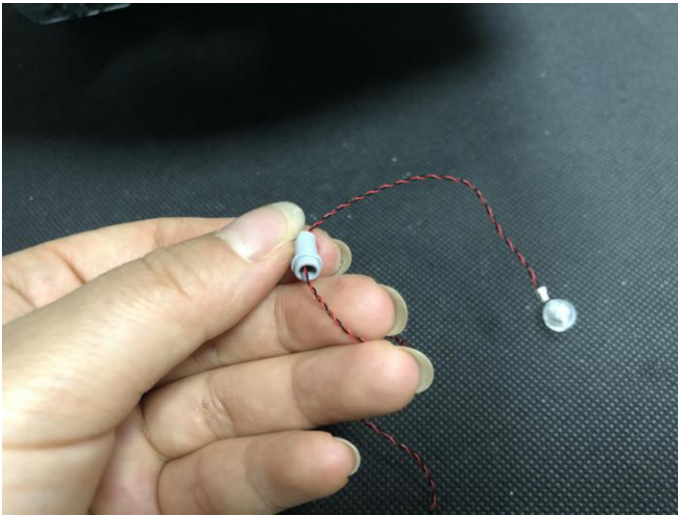
74.Remove the following piece, disassemble it.



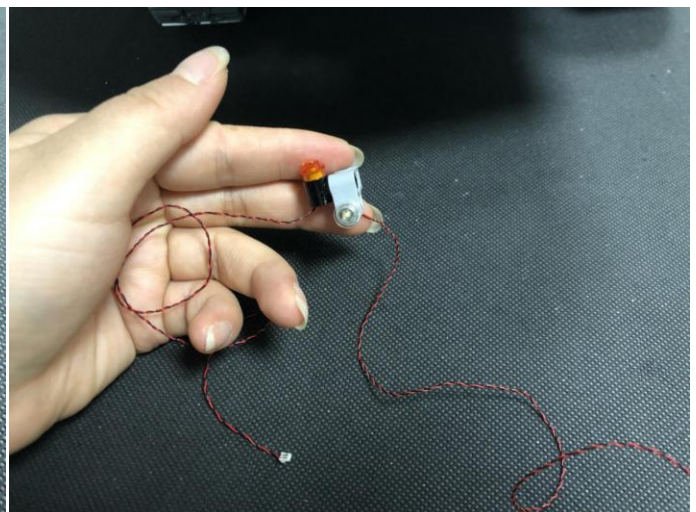
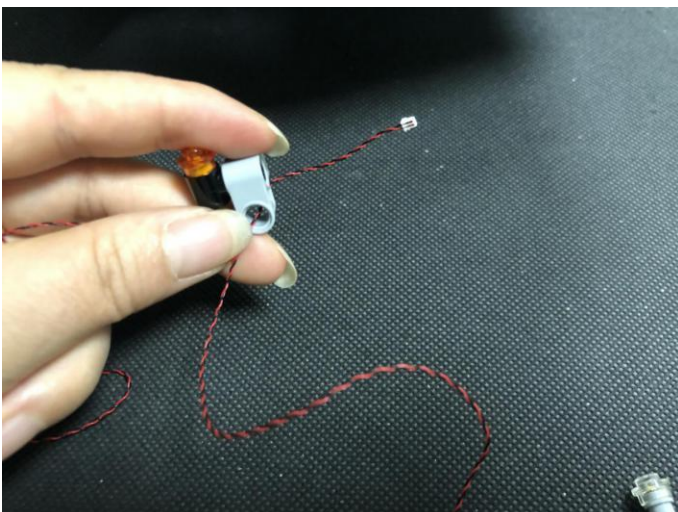
75.Take a warm white 30cm dot light, a trans 1x1 round plate.



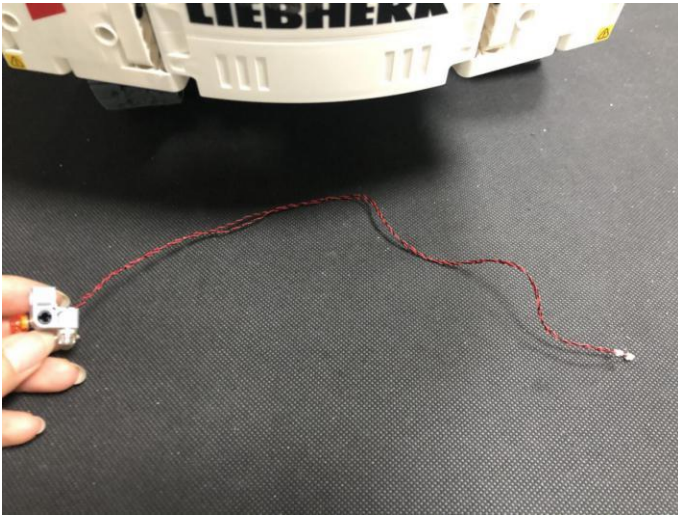
76. Thread the cable through the pin, pull the cable out till the light is placed inside, secure the light with trans piece.



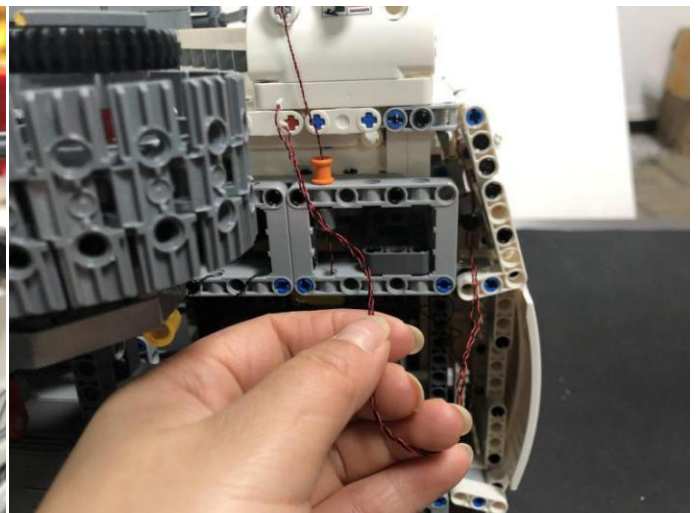
77. Continue to thread the cable through the following gray piece, reconnect the piece we removed before.



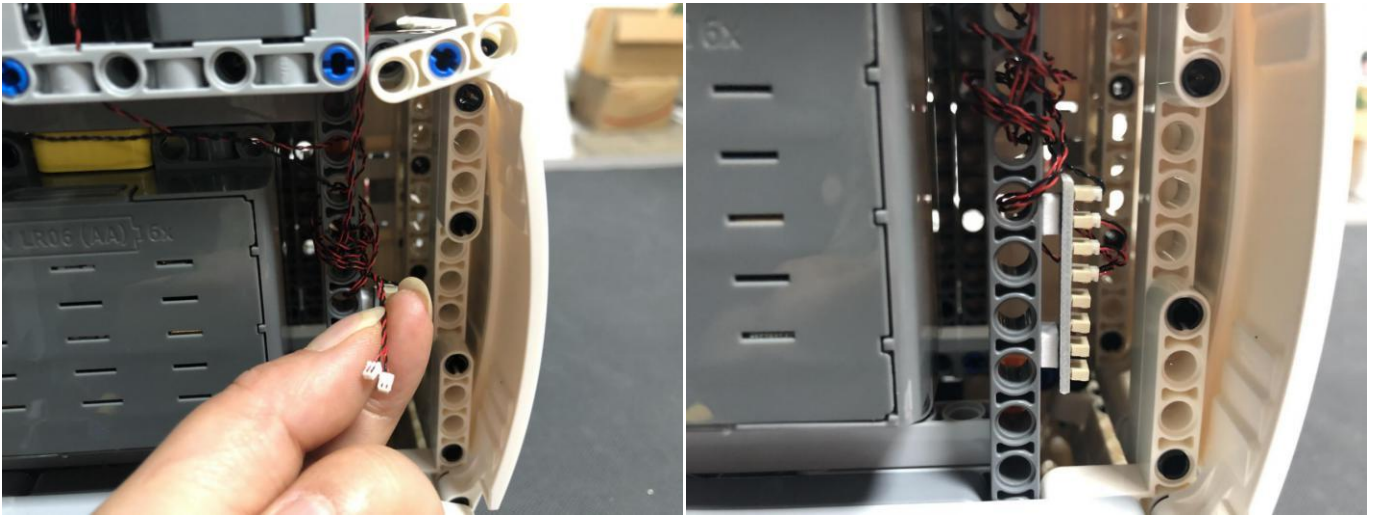
78. Group the 2 lights together, thread them through the following space.



79. Reconnect the piece we removed before, turn the excavator to its side, pull the cables out from the bottom.



80. Wind excess cable around the following piece before connect it to the 8-port expansion board.



81. Take 2 warm white 30cm dot lights, a trans orange 1x1 round plate, a trans 1x1 round plate, repeat the steps above to install the other light.

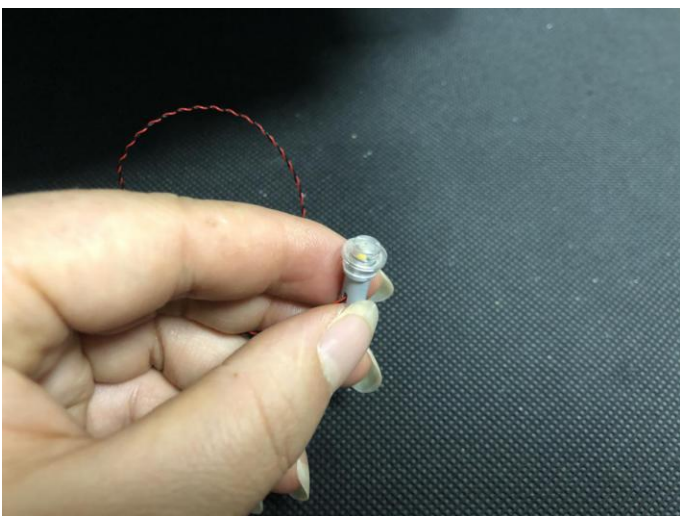
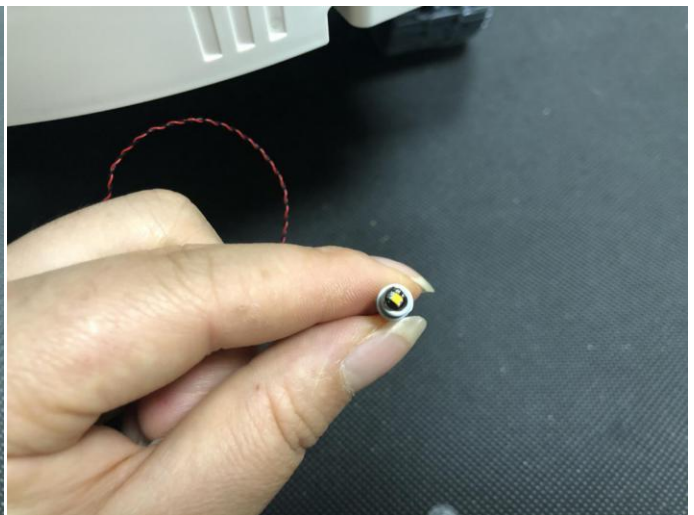
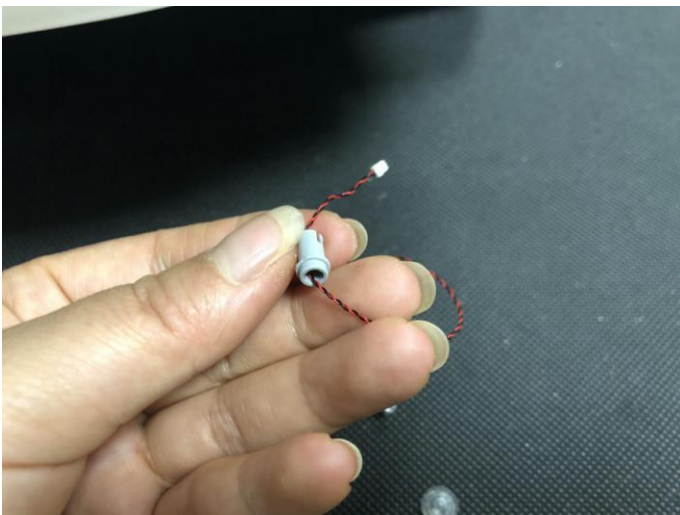
Continue to install light for the following piece over the '9800' sticker. Remove the piece and disassemble it.



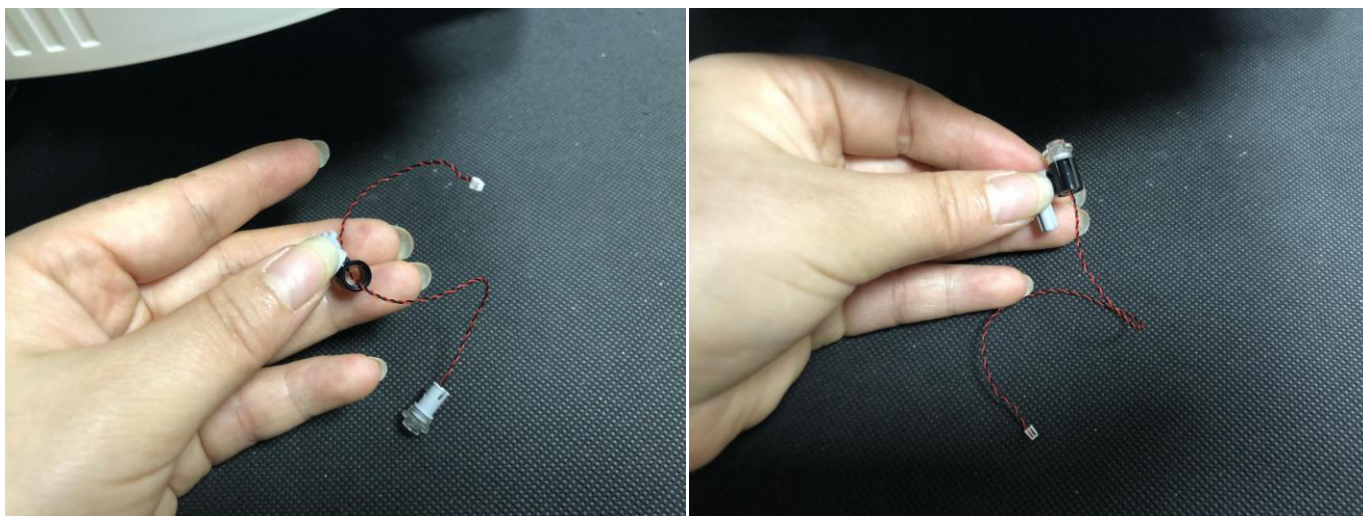
82. Take a warm white 15cm dot light, a trans 1x1 round plate.



83. Thread the cable through the pin, pull the cable out till the light is placed inside, secure the light with the trans round plate.



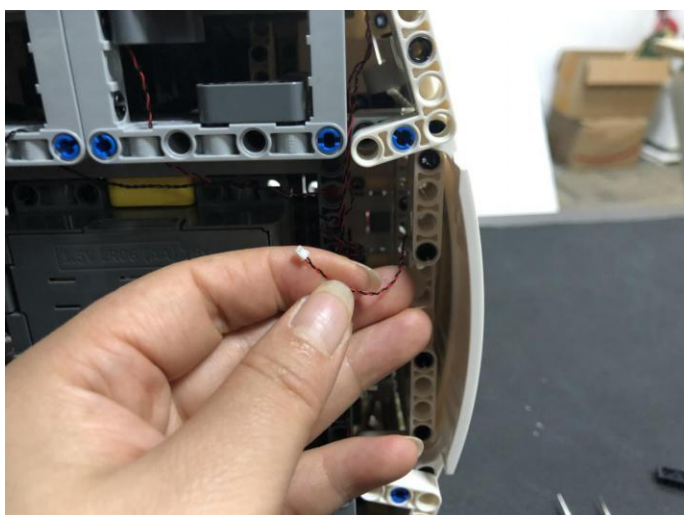
84. Thread the cable through the following black piece, reconnect the trans piece.



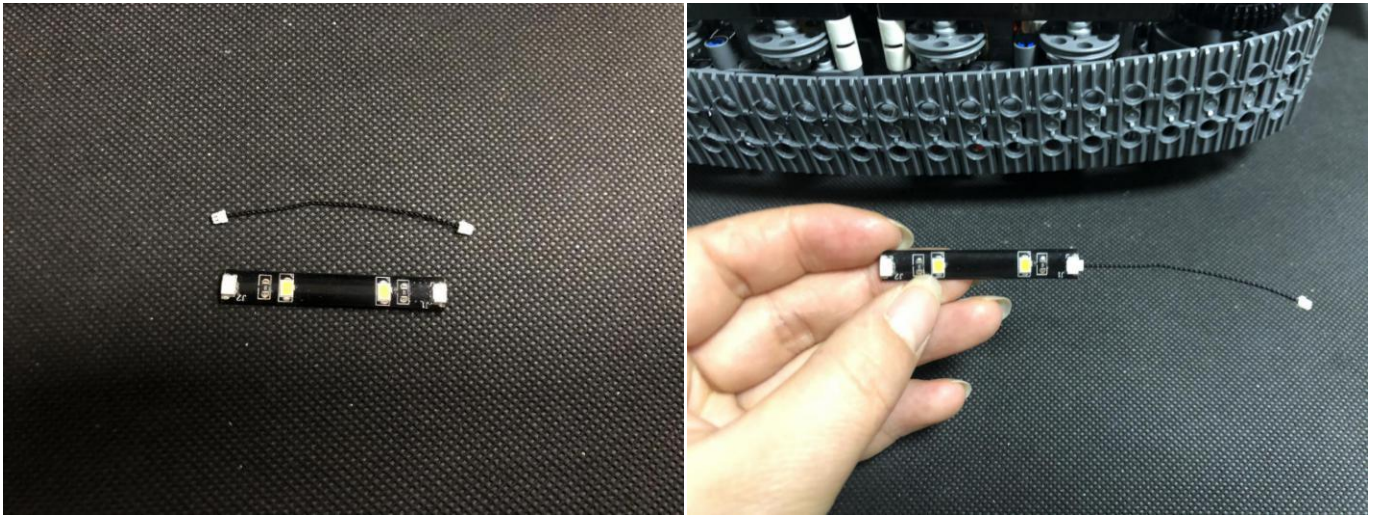
85. Continue to thread the cable through the following piece, reconnect the piece we removed before.



86. Turn the excavator to its side, pull the cable out.



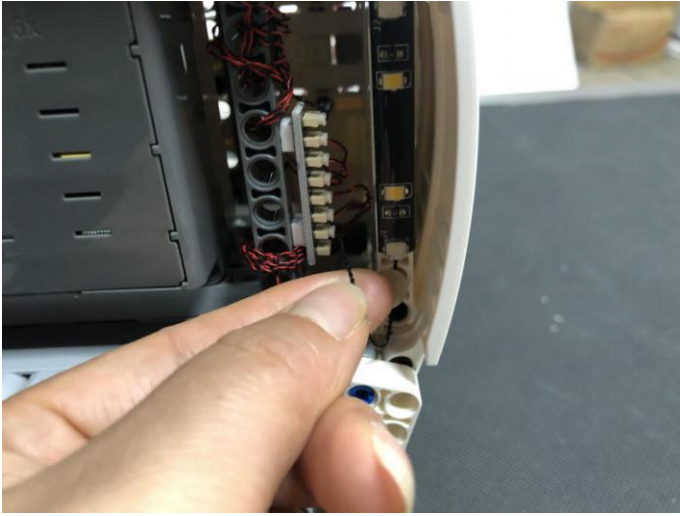
87. Take a warm white strip light, a 5cm connecting cable, connect the connecting cable to the strip light.



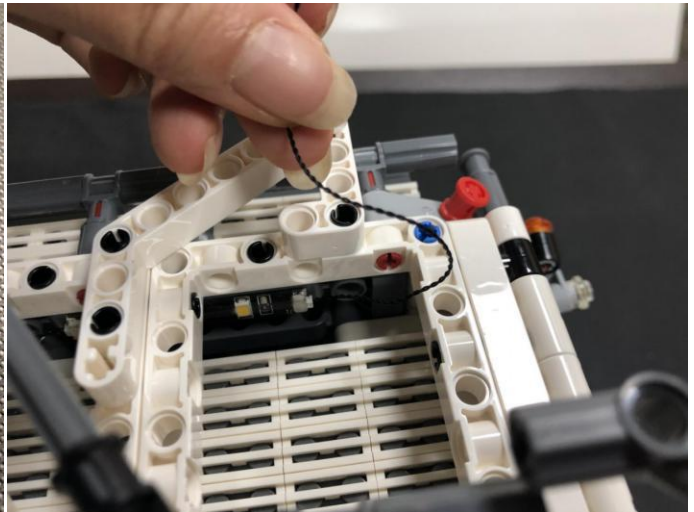
88. Connect the cable of the light to the strip light, stick the strip light to the following place.



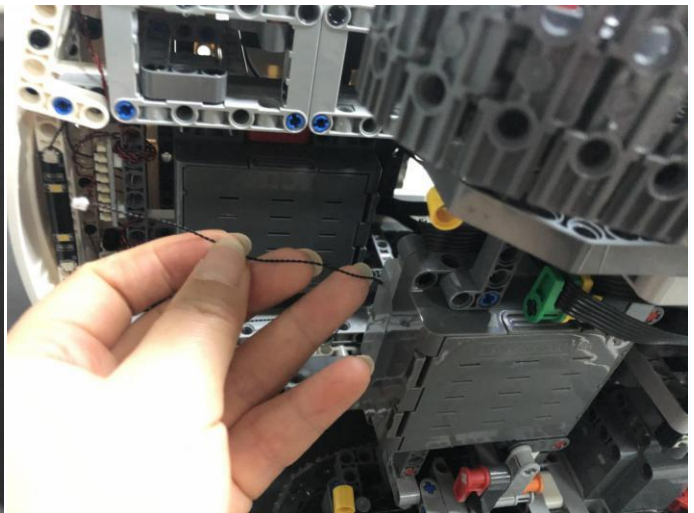
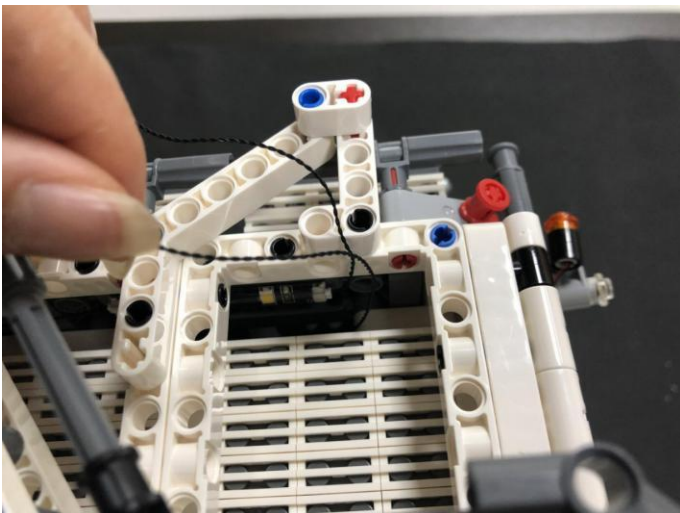
89. Connect the connecting cable from the strip light to the expansion board as per below.



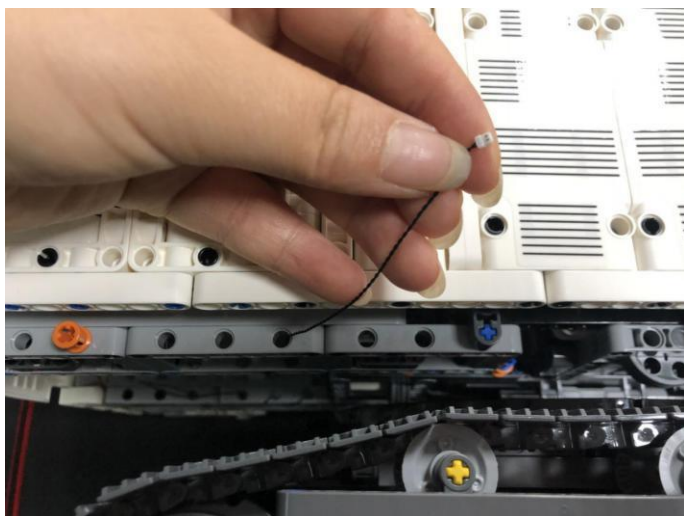
90. Take a 30cm connecting cable, connect it to the strip light.



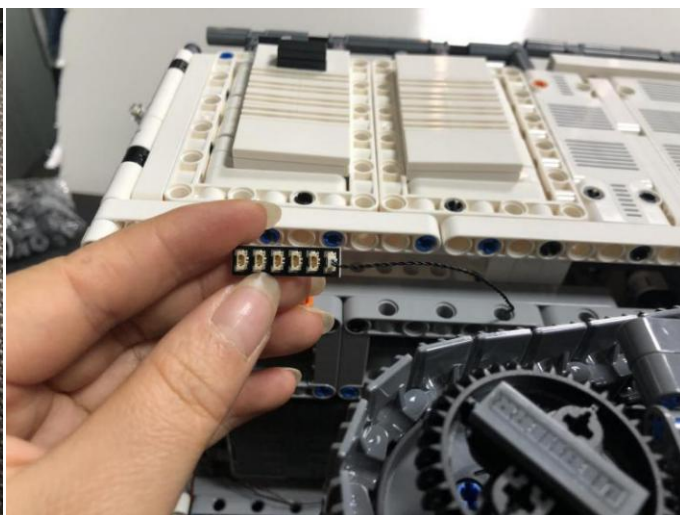
91. Thread the cable of the light through the following space, turn the excavator to its side, pull the cable out.



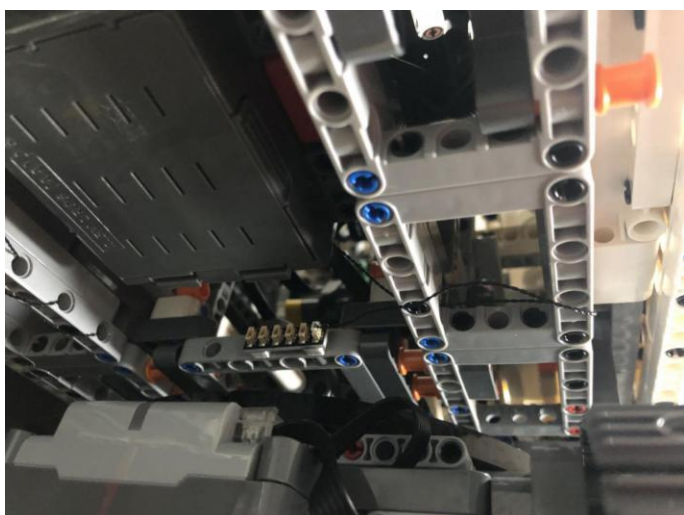
92. Pull the cable out from the following hole (you can pull it out from any hole).



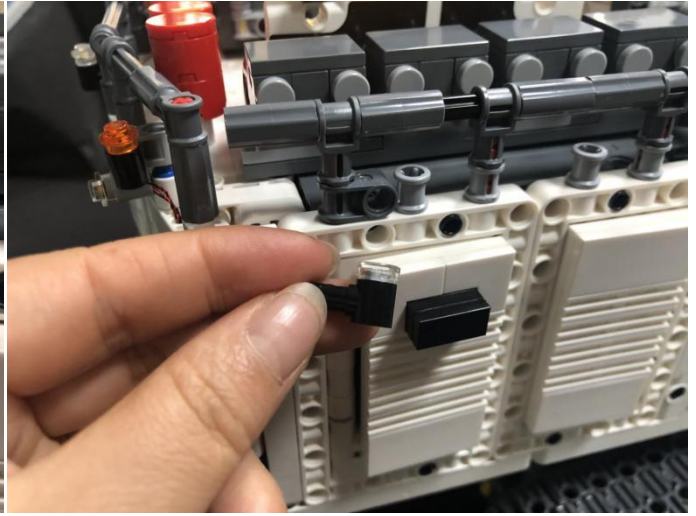
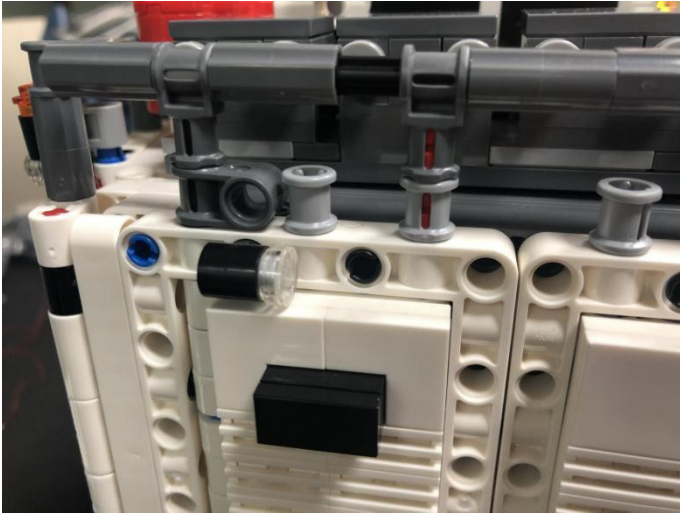
93. Take a 6-port expansion board, connect the connecting cable to the expansion board.



94. Stick the expansion board to the following place.



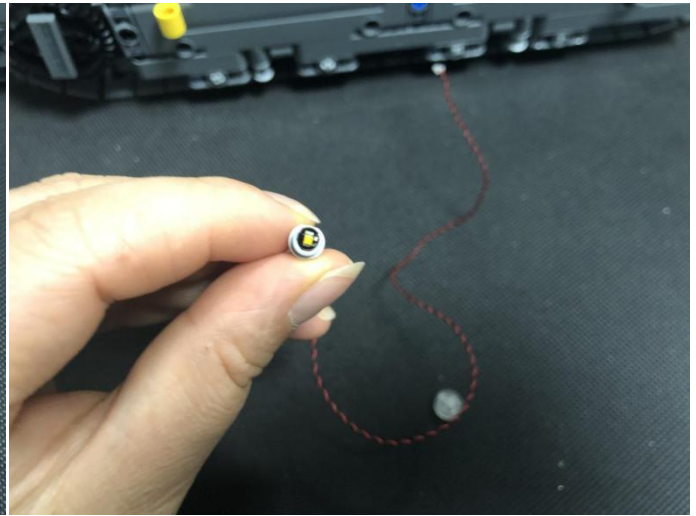
95. Move onto install lights for the side door. Remove the light as disassemble it as per below.



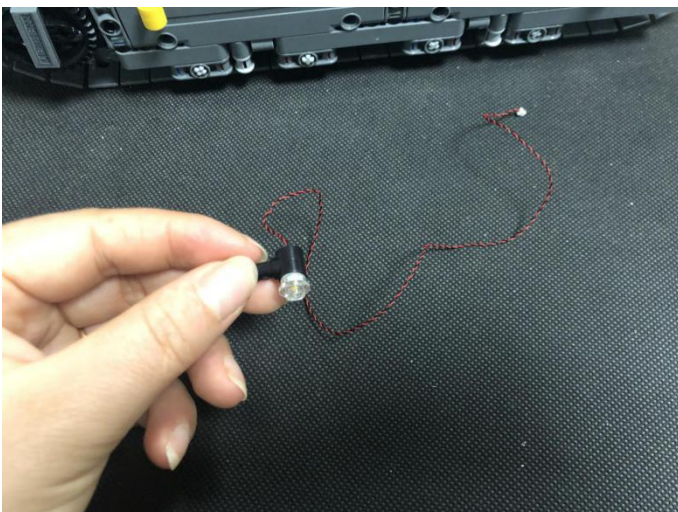
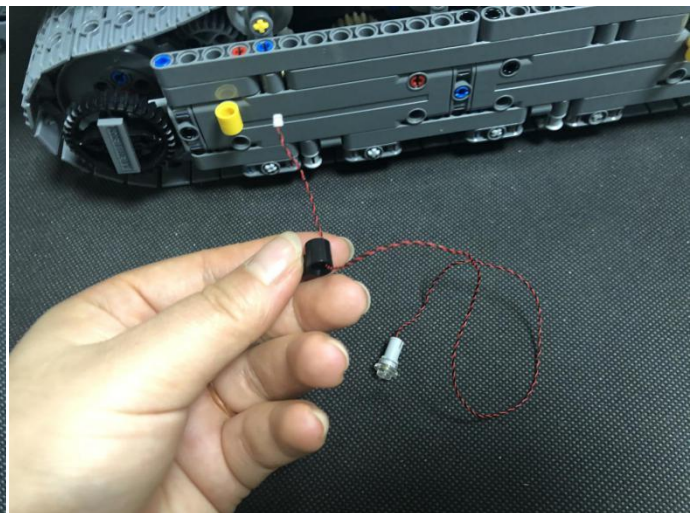
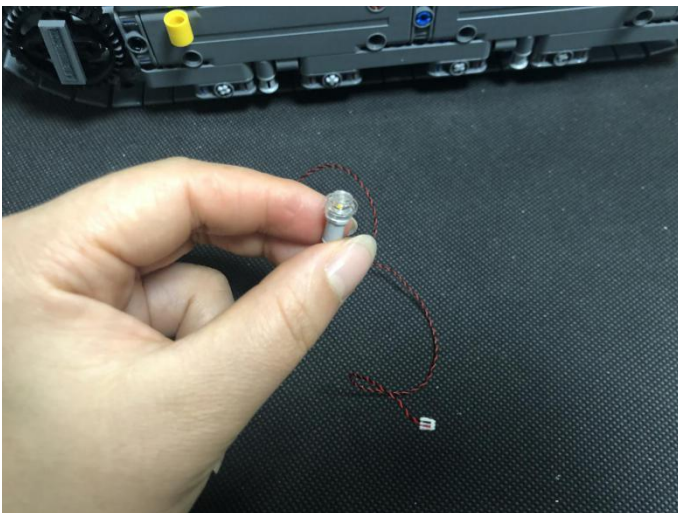
96. Take a warm white 30cm strip light, a trans 1x1 round plate.



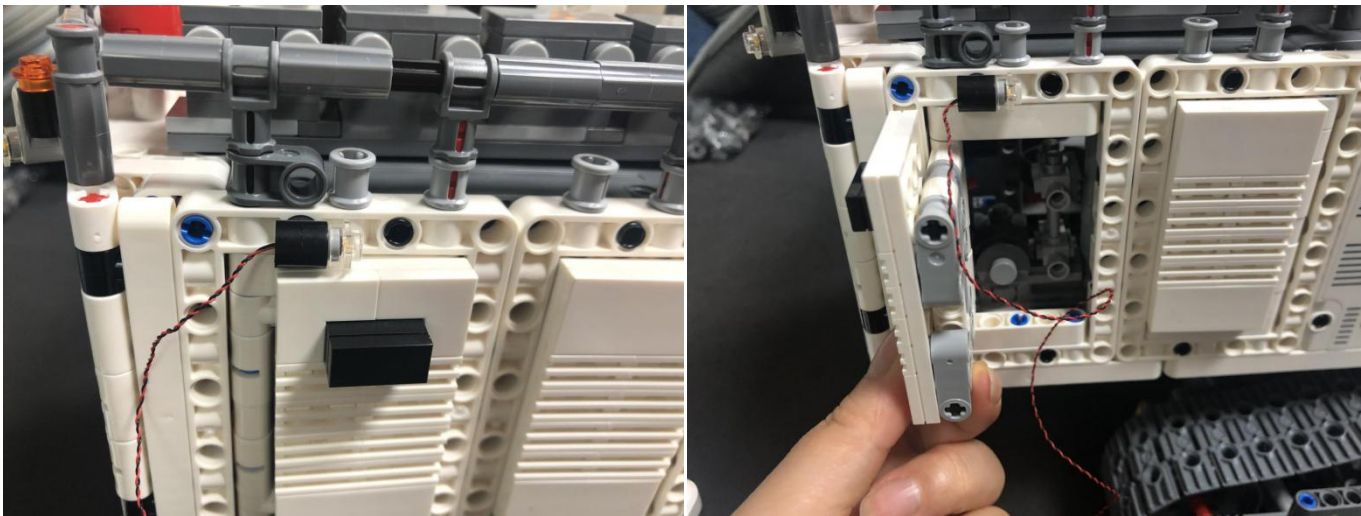
97. Thread the cable through the pin, pull the cable out till the light is placed inside.



98. Secure the light with trans round plate, continue to thread the cable through the following black piece, reconnect the pin.



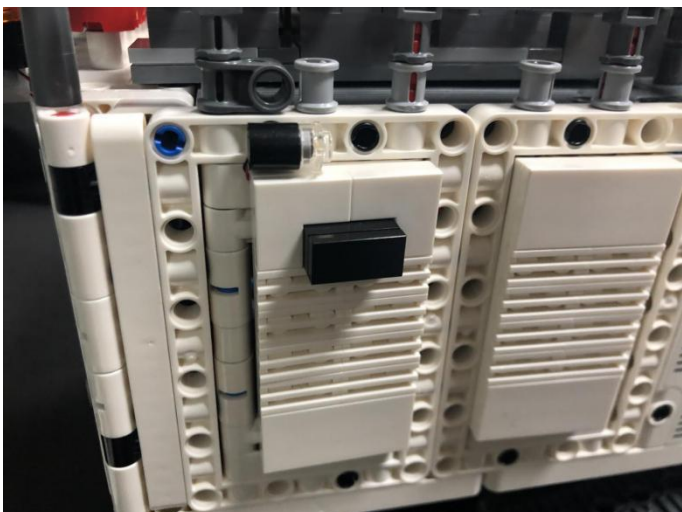
99.Reconnect the piece we removed before, open the door underneath.



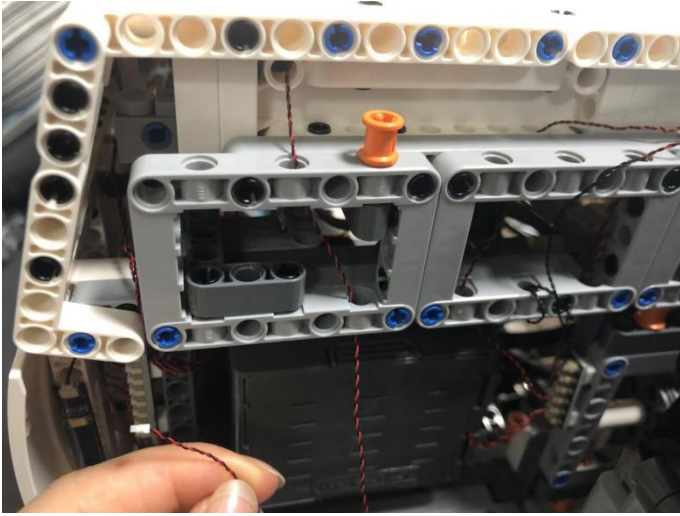
100.Thread the cable through the space near the doorframe to the bottom.



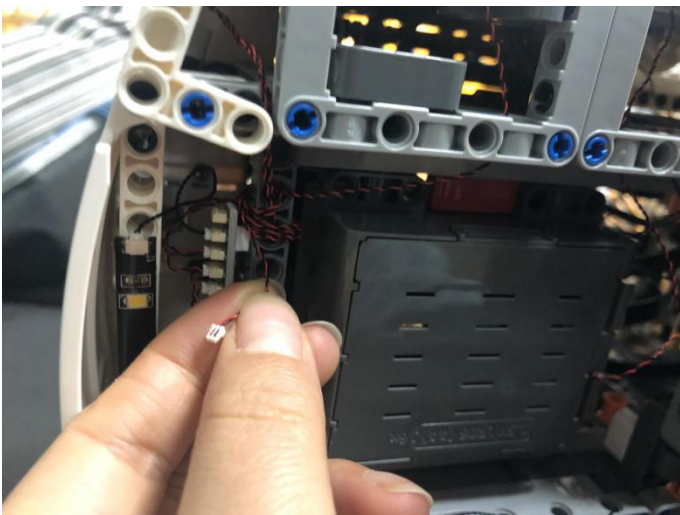
101.Close the door.



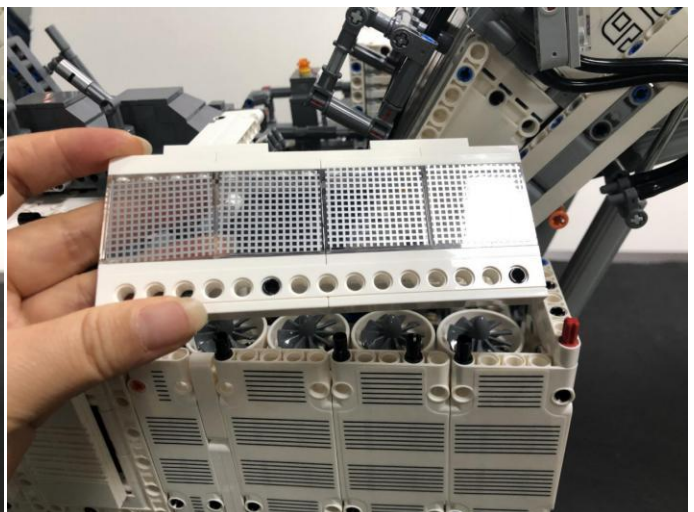
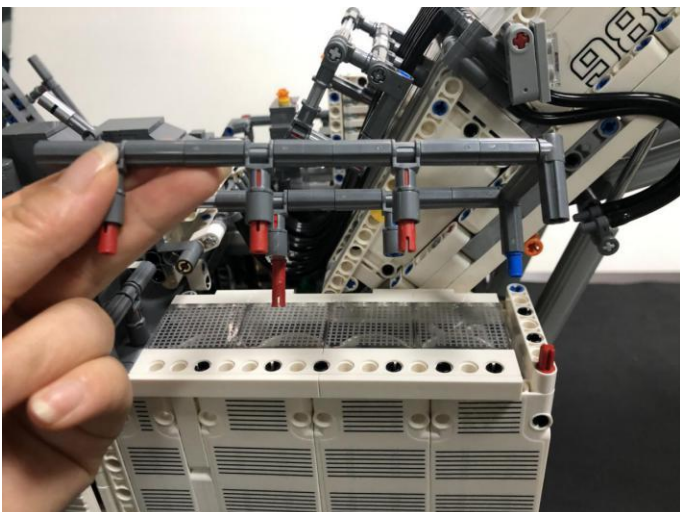
102. Turn the excavator to its side, thread the cable through the following space.



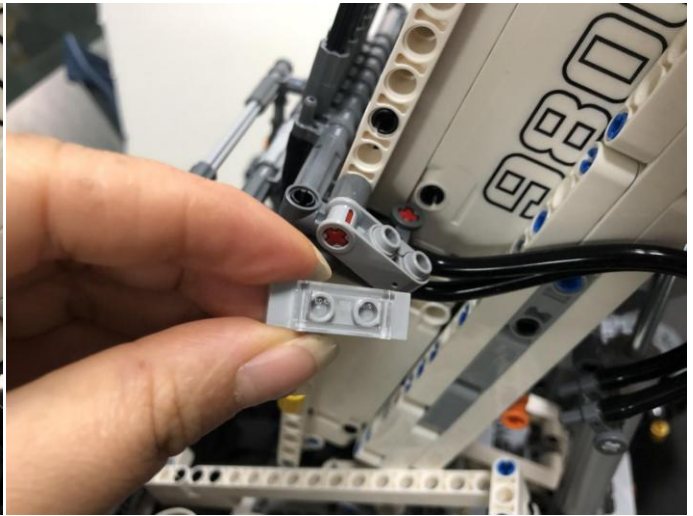
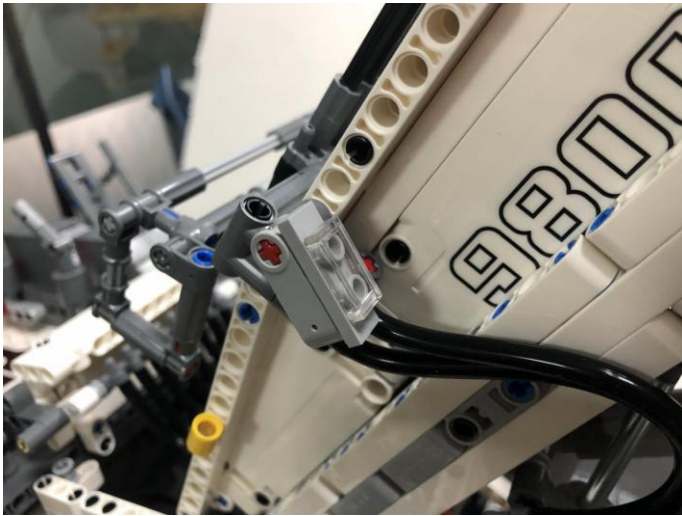
103. Tuck excess cable before connect it to the 8-port expansion board.



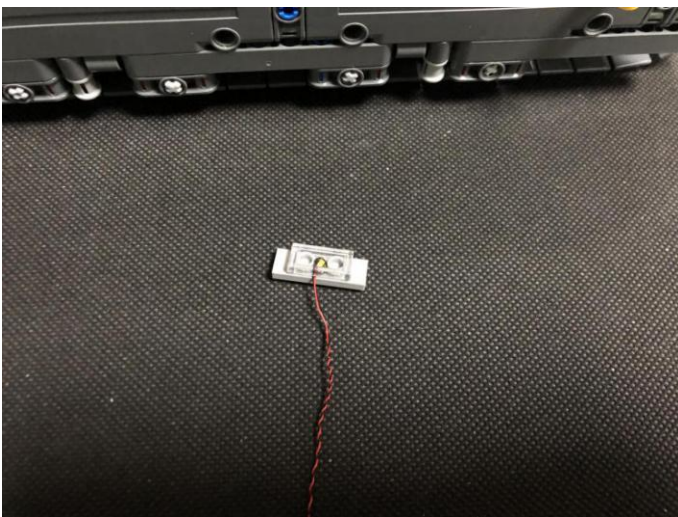
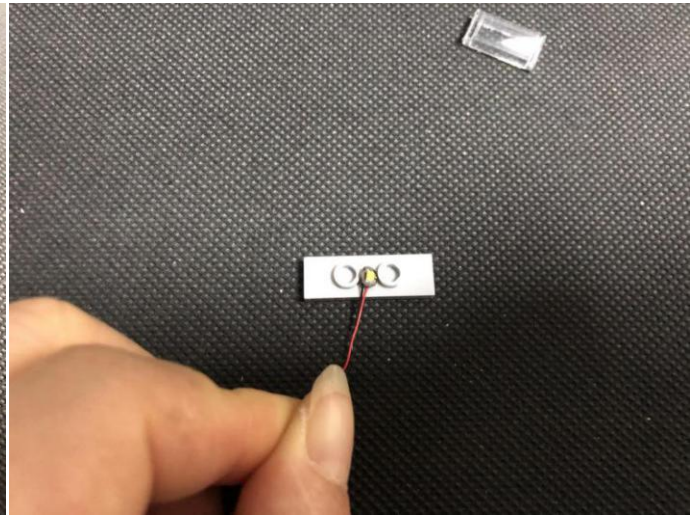
104. Remove the following railings and roof.



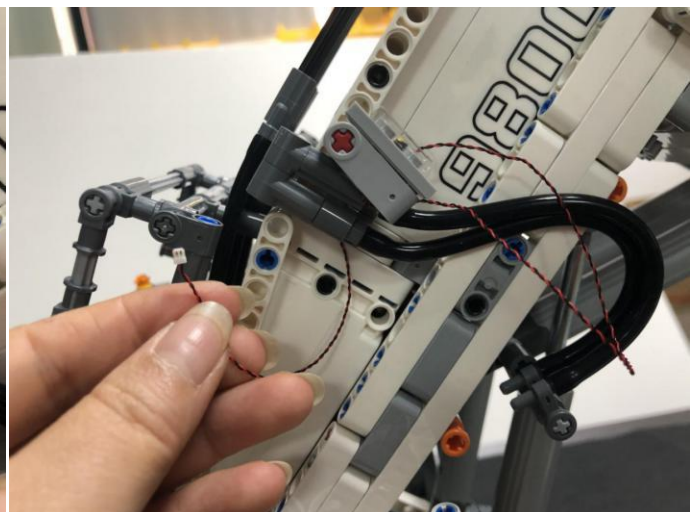
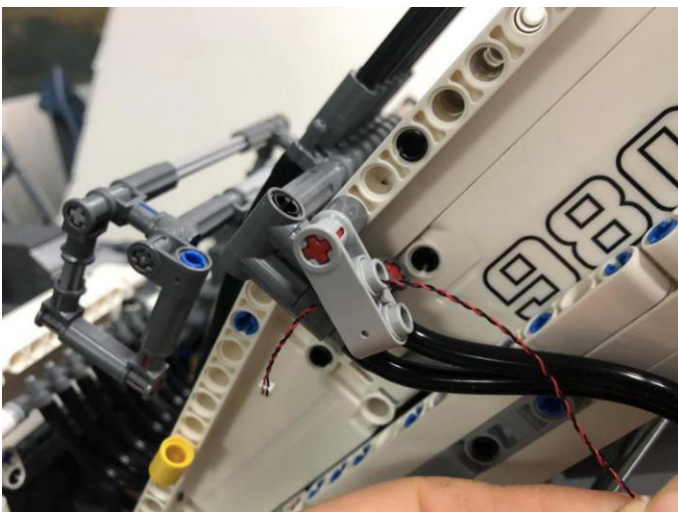
105. Continue to install light for the following trans piece, remove the piece and disassemble it.



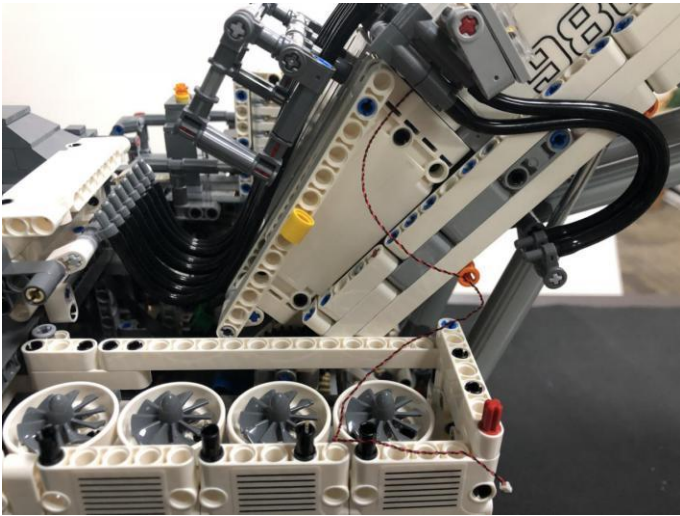
106. Take a warm white 30cm dot light, place the light between the 2 studs, secure the light with trans piece.



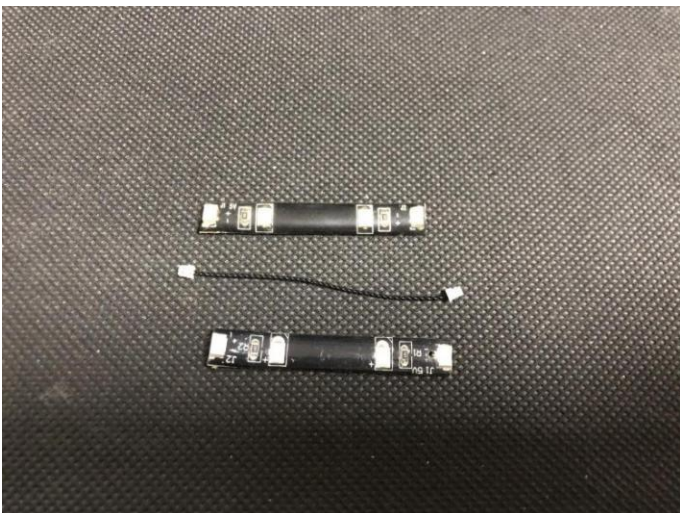
107. Thread the cable through the following space. Reconnect the piece we removed before.



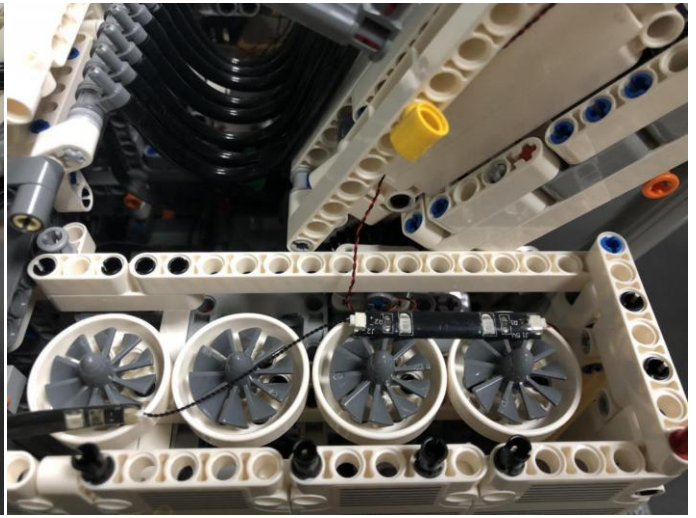
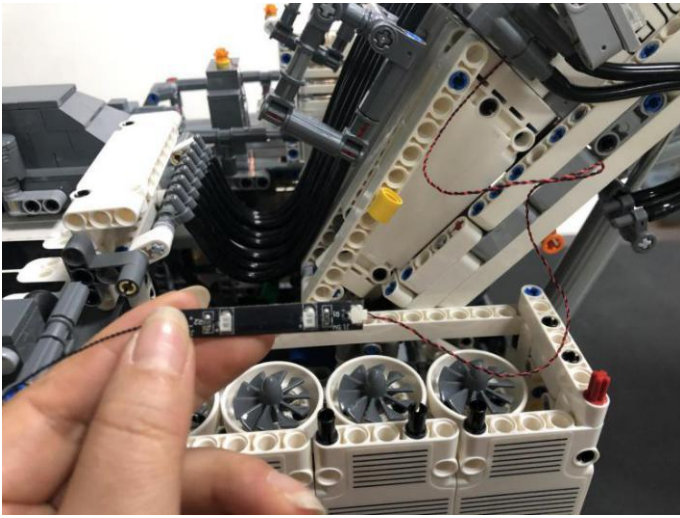
108. Pull the cable downward from the inner side, in case of interfering the excavator, do not thread the cable through any holes.



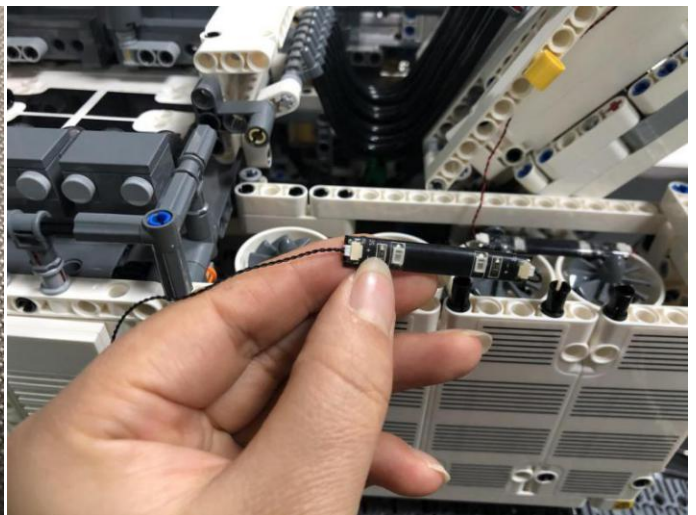
109. Take 2 red strip light, a 5cm connecting cable, assemble them as per below.



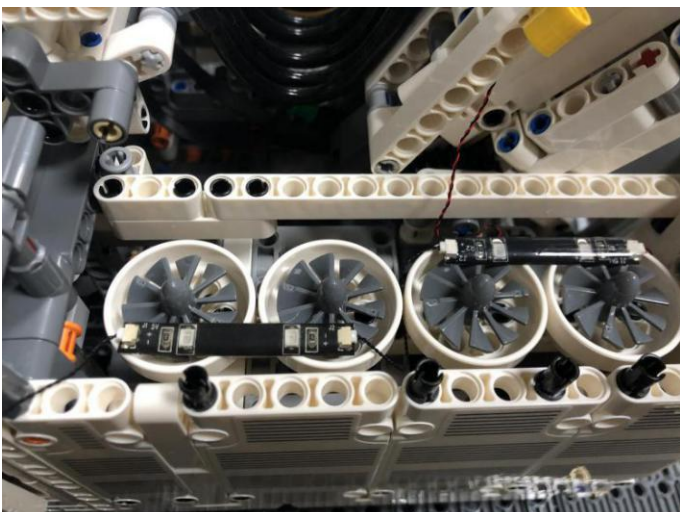
110. Connect the cable from the light to the strip light, stick the strip light to the following place.



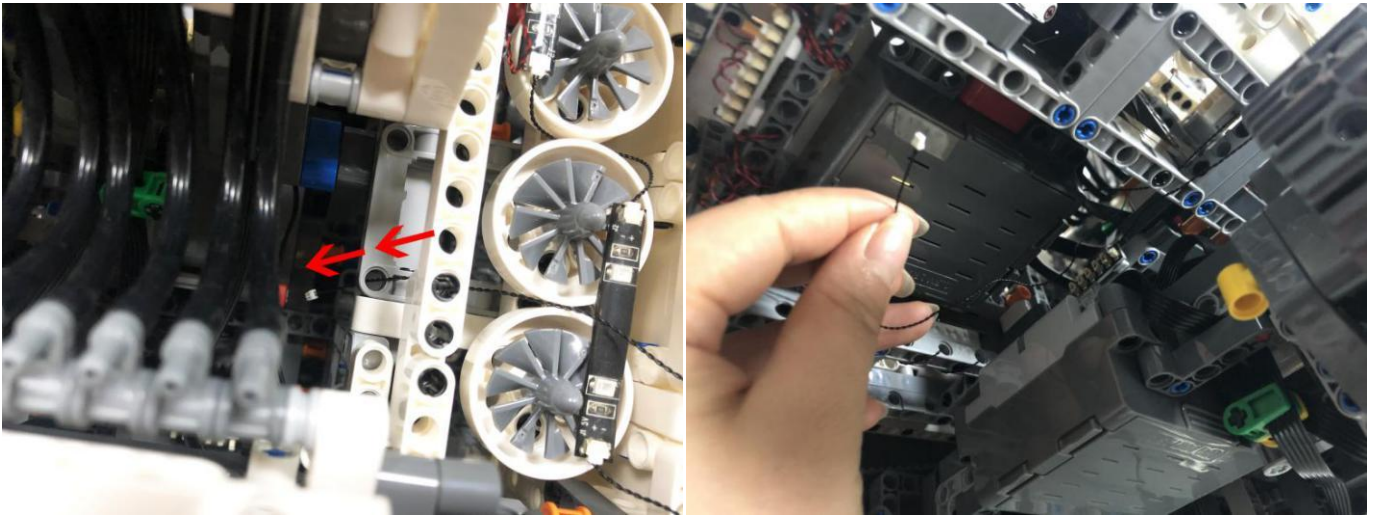
111. Take a 30cm connecting cable, connect it to the other strip light.



112. Stick the strip light to the following place.



113.Thread the cable through the following space, pull the cable out from the bottom.



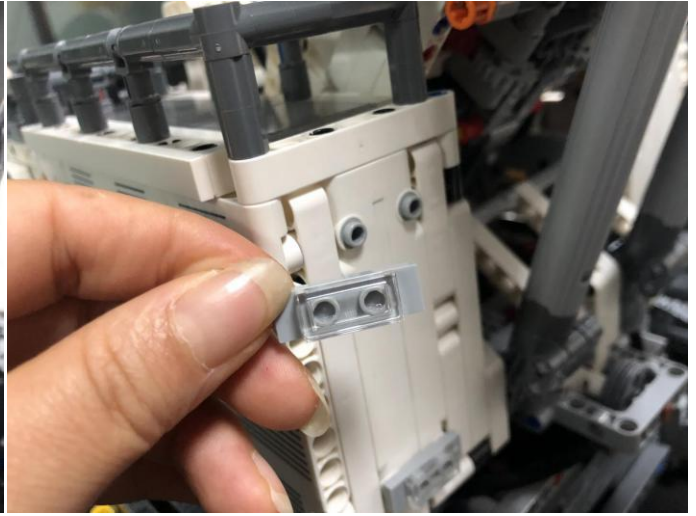
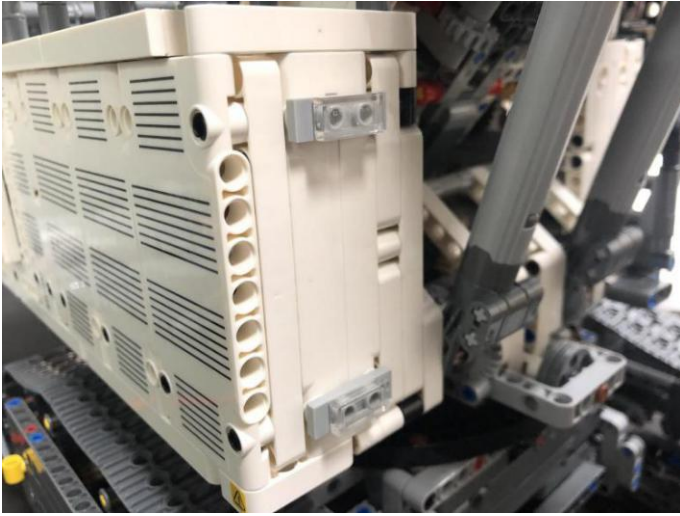
114.Tuck excess cable before connect it to the expansion board.



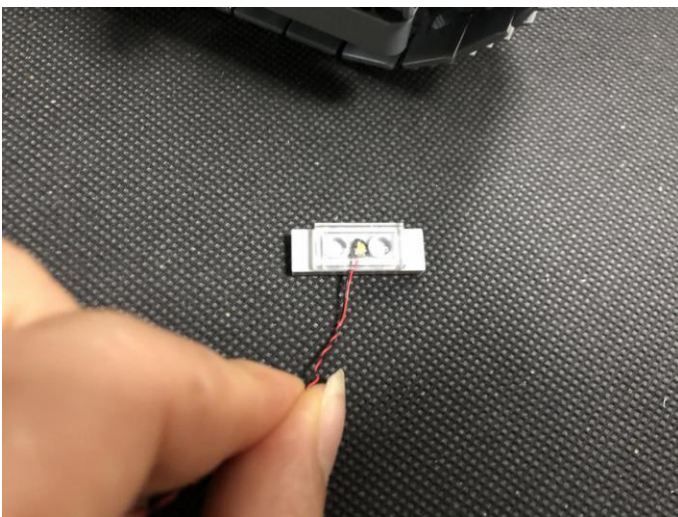
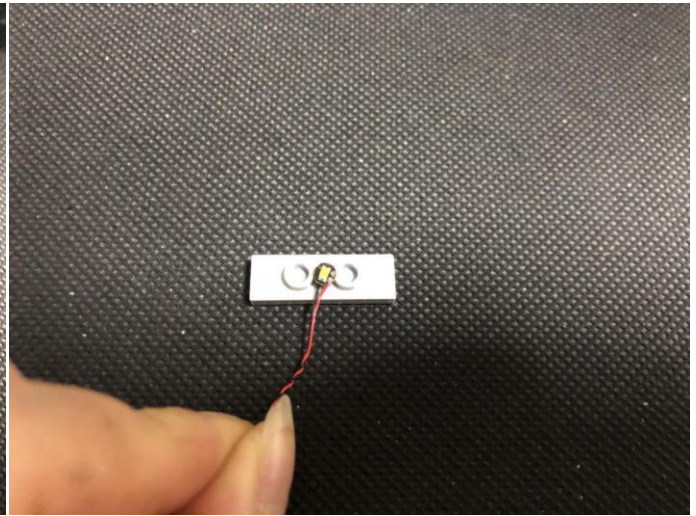
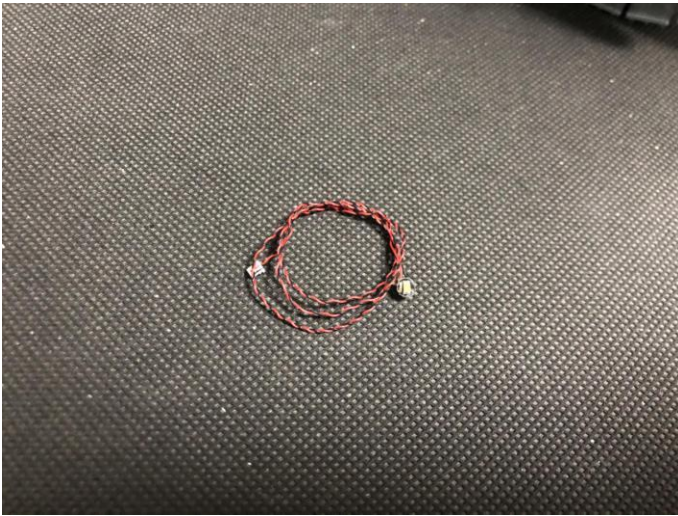
115.Reconnect the railings and the roof.



116. Move onto installing the following 2 lights, remove one of them, disassemble it as per below.



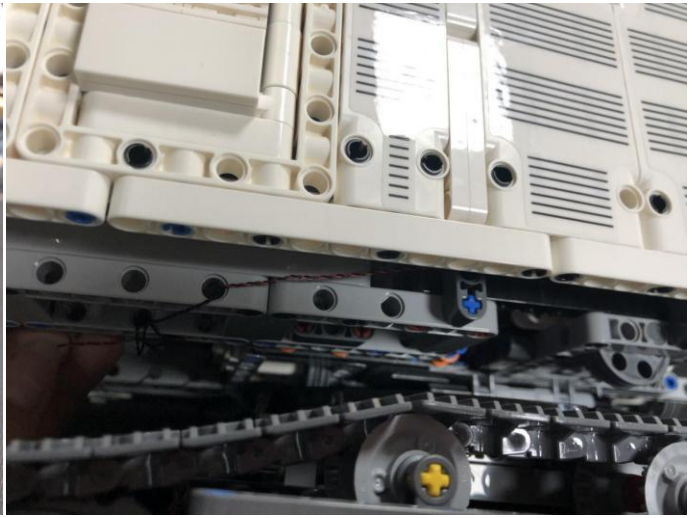
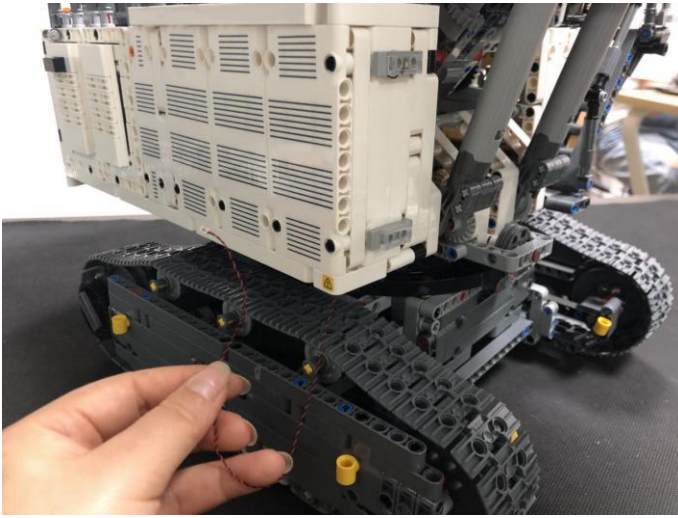
117. Take a warm white 30cm dot light, place the light between the 2 studs, secure the light with the trans piece.



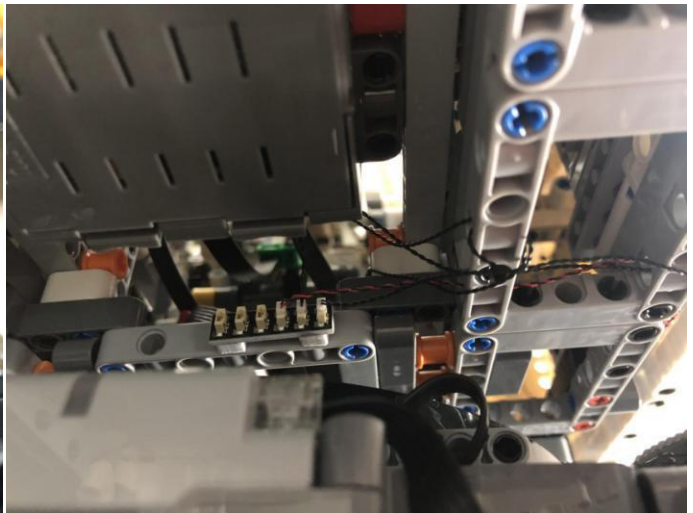
118. Thread the cable through the following space, reconnect the piece we removed before.



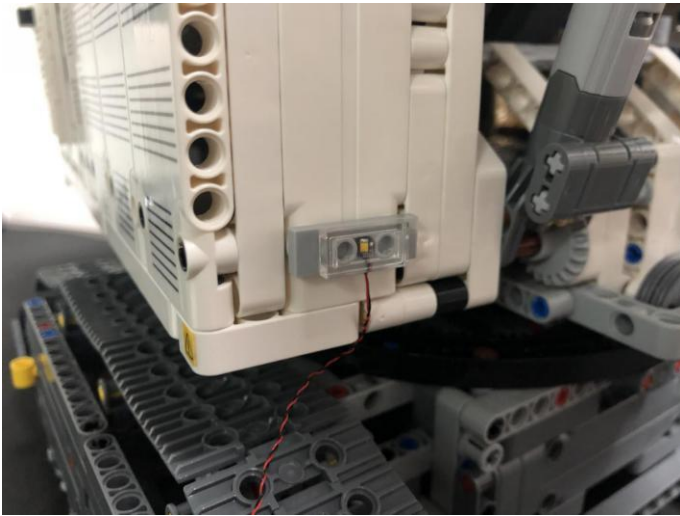
119. Pull the cable out from the bottom, place it alongside the car to the back.



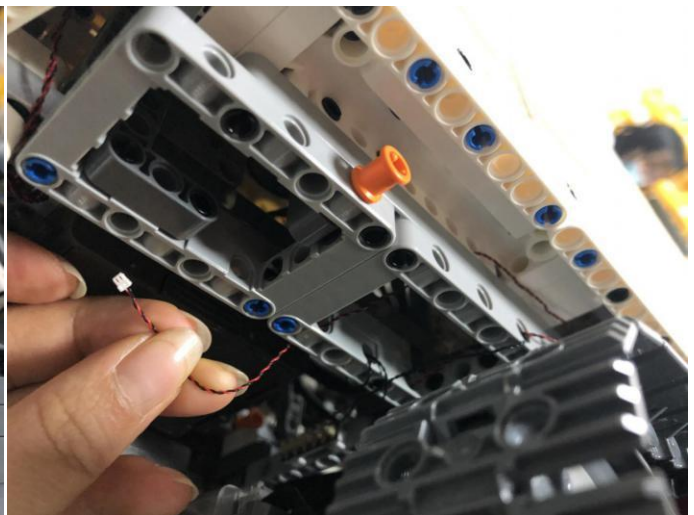
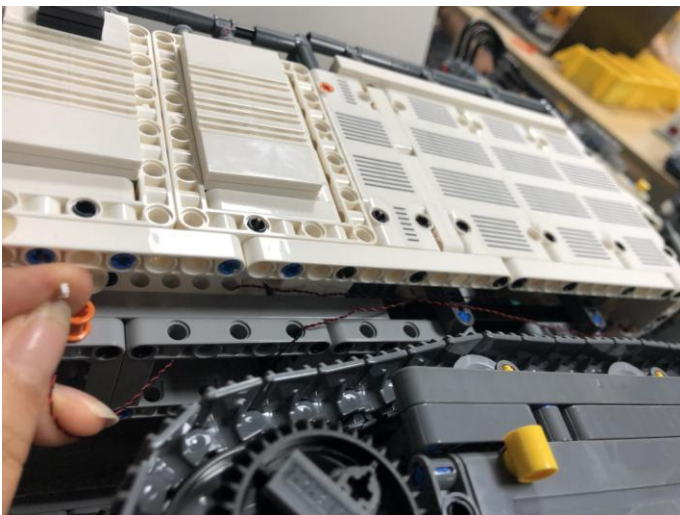
120. Thread the cable through the holes before connect it to the expansion board.



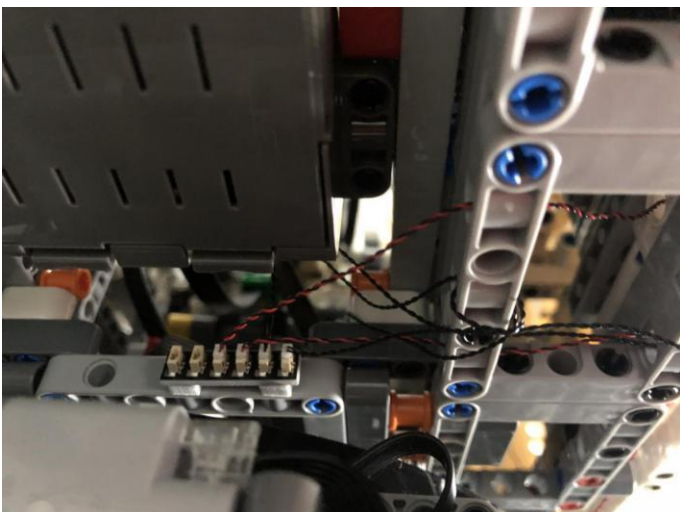
121. Take a warm white 30cm dot light, repeat the previous steps to install the light.



122. Pull the cable downward.



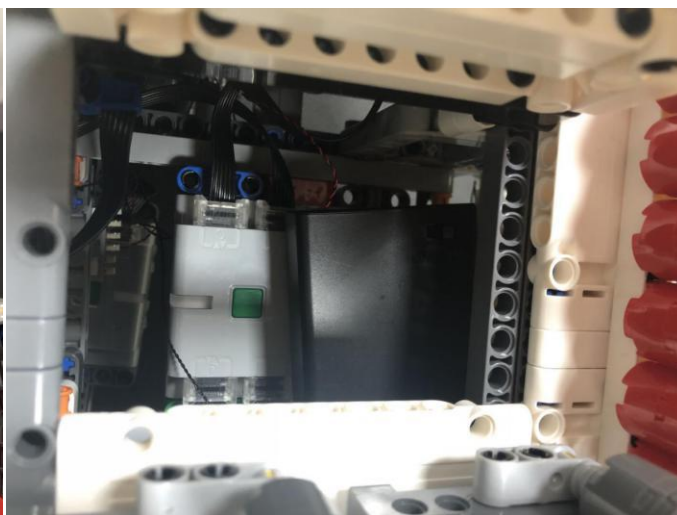
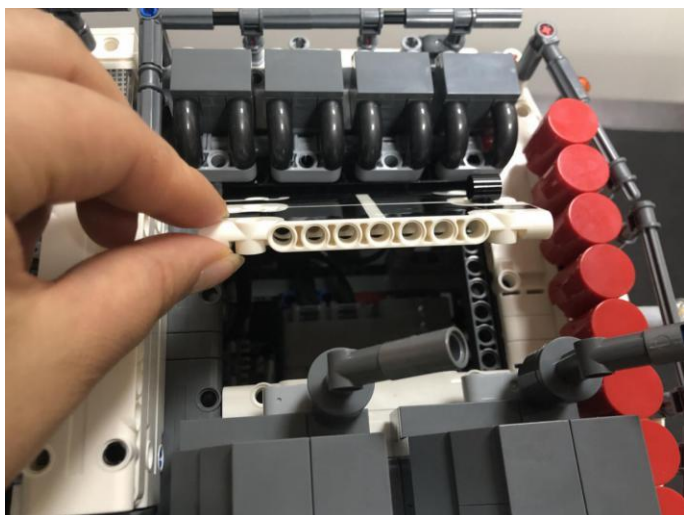
123. Connect it to the expansion board.



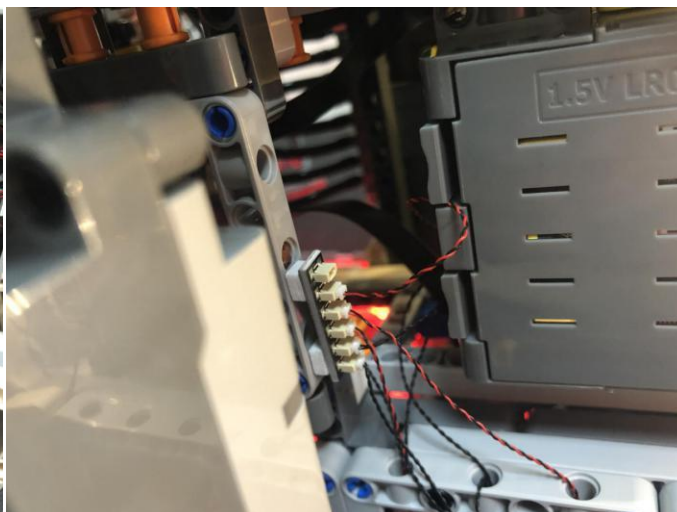
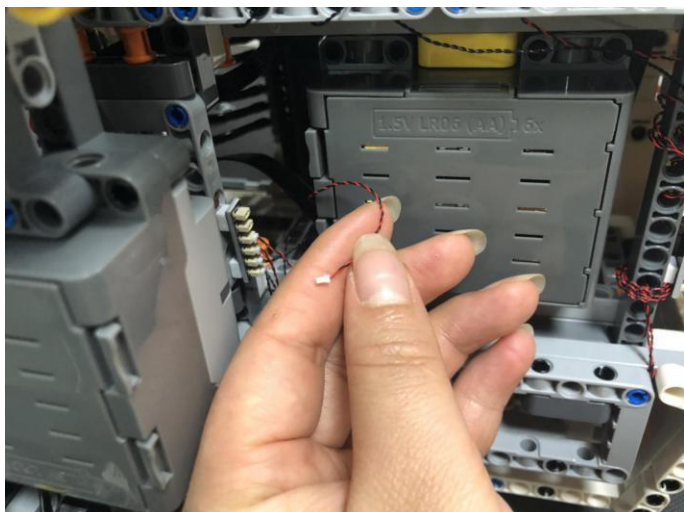
124.The AA Battery Box does not contain batteries, please buy three AA batteries in the nearest store and install it in the AA Battery Box.



125.Open the following roof, stick the battery pack to the following place. Note: do not block the original switch.



126.Pull the cable out, connect it to the expansion board.



Good job, you've done all the installation steps, power it up and enjoy your work.

