10221 Super Star Destroyer P109

- **P109 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 "10221 P109".**

- **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
LED Strip Lights-Blue	LED Strip Lights-Blue	8
LED Strip Lights-White	LED Strip Lights-White	1
Expansion Board	6 Socket Expansion Board	1
	8 Socket Expansion Board	2
	12 Socket Expansion Board	2
AA Battery Box	AA Battery Box	1
Connecting Cables-5CM	Connecting Cables-5CM	2
Connecting Cables-15CM	Connecting Cables-15CM	11
Connecting Cables-50CM	Connecting Cables-50CM	1
Bit Lights-30CM-Blue	Bit Lights-30CM-Blue	14
Bit Lights-30CM-White	Bit Lights-30CM-White	18
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.
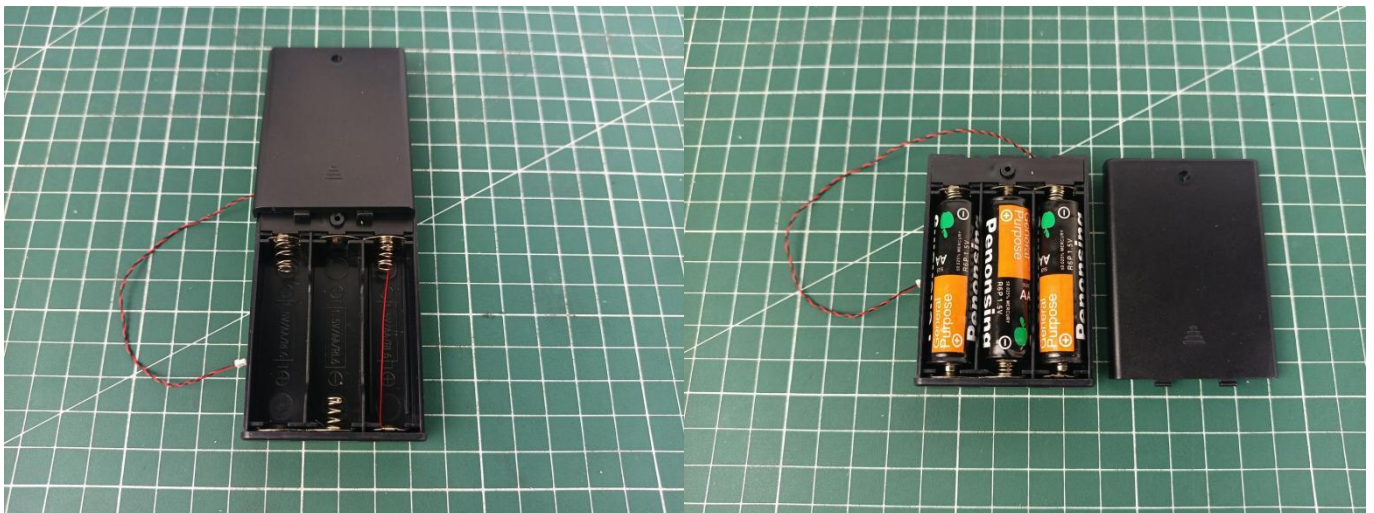
It is worth reminding that our products are all customized. They have a unique way of connecting. The white plug on wire and the socket of the expansion board need to be connected together to transmit power.

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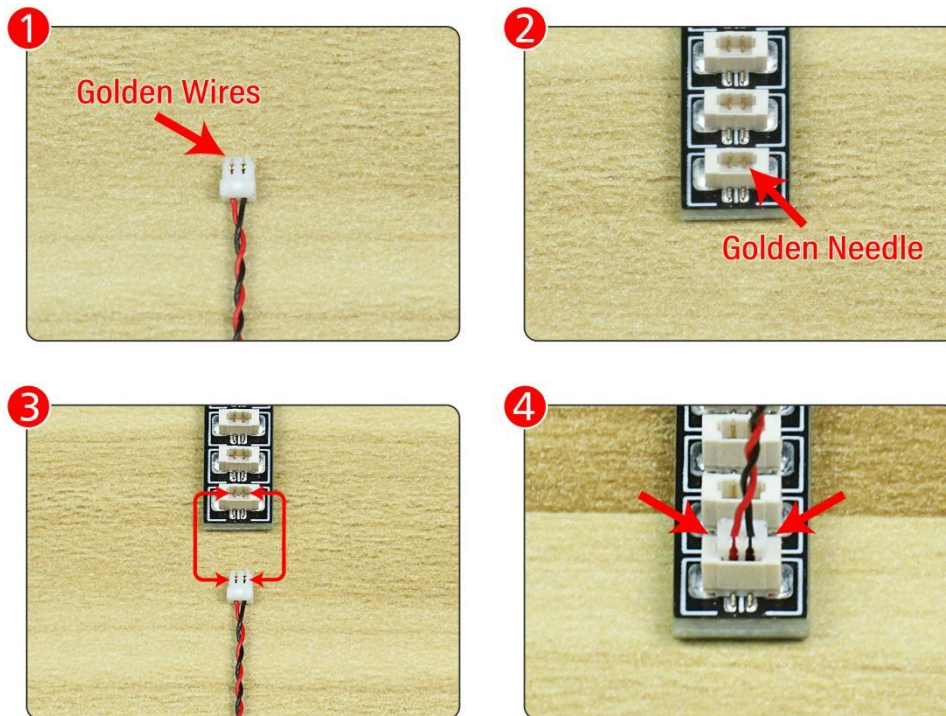
All our connections between plug and socket are all the same as shown above. So for any such structure with plug and socket, please pay attention to the golden wire of the plug and the golden needle of the socket, they must be touched together.

The connection method between the AA Battery Box and Expansion Boards is as follows:
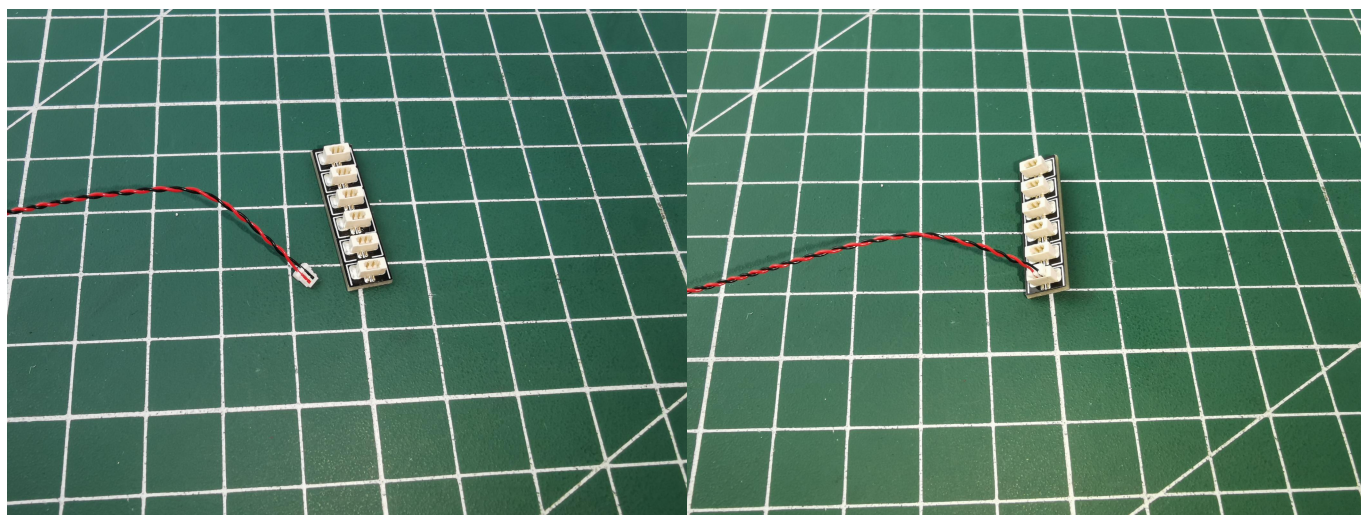
when we test "Bit Lights-15CM-White" particles,Take out the bag labelled "Bit Lights-15CM-White".Take out one of the light and connect it to the socket. Turn on the battery box, the light will turn on normally as shown below.
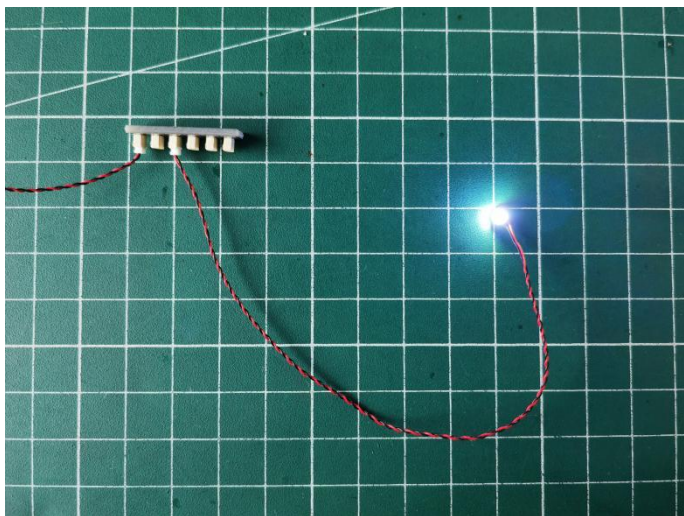
Test each lamp according to this method. It should be noted that after the test, the lamp must be returned to the corresponding bag to avoid confusion of types.

The components needs to be tested in this set is 8*LED Strip Lights-Blue,1*LED Strip Lights-White,14*Bit Lights-30CM-Blue,18*Bit Lights-30CM-White.

Please contact us immediately if any components don't work.

Section C：laying out components following the instruction.

1.Start by disconnecting the two long roof sections that run along each side of the Star Destroyer
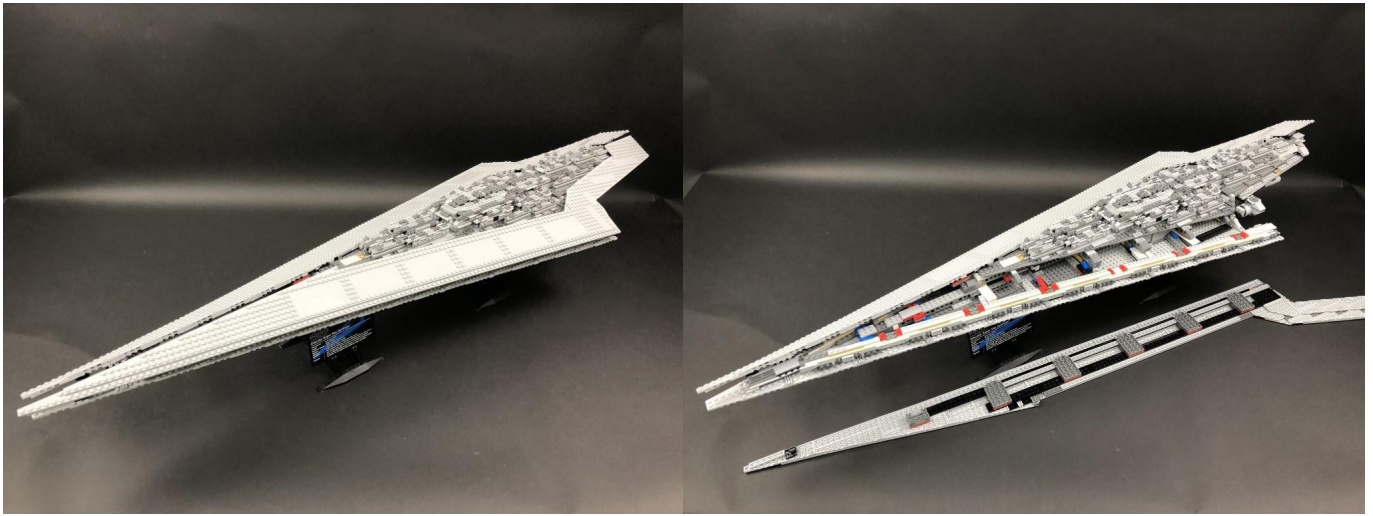
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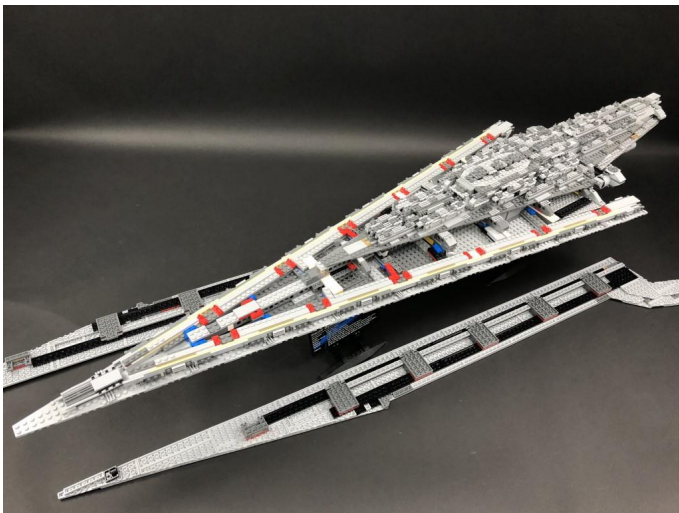
3.Turn the ship around so we can access the back, then disconnect the centre jet section followed by the two side jet sections.

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8.Take the centre jet section and follow the images below to disconnect sections so that we can disconnect the jets.

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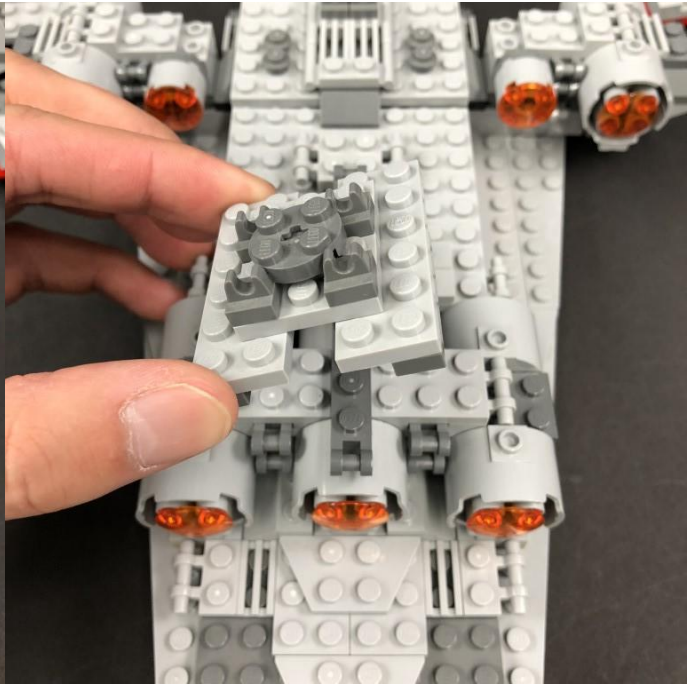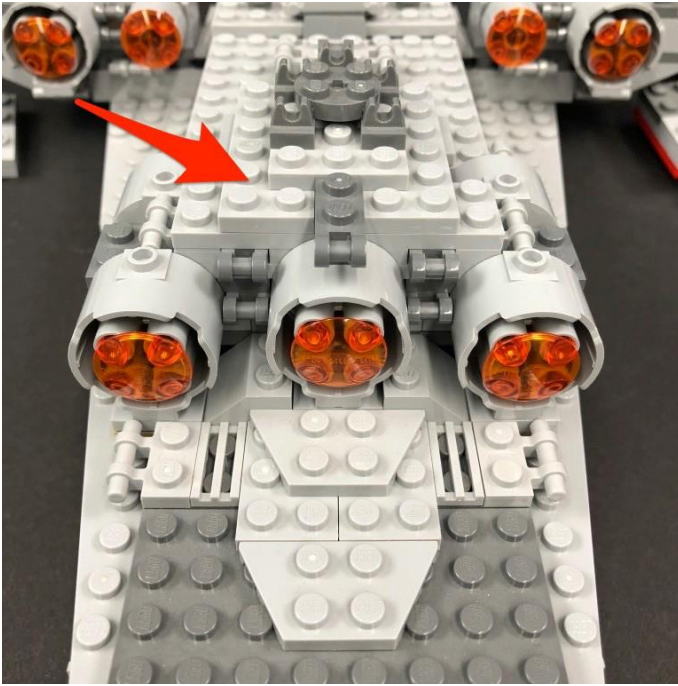
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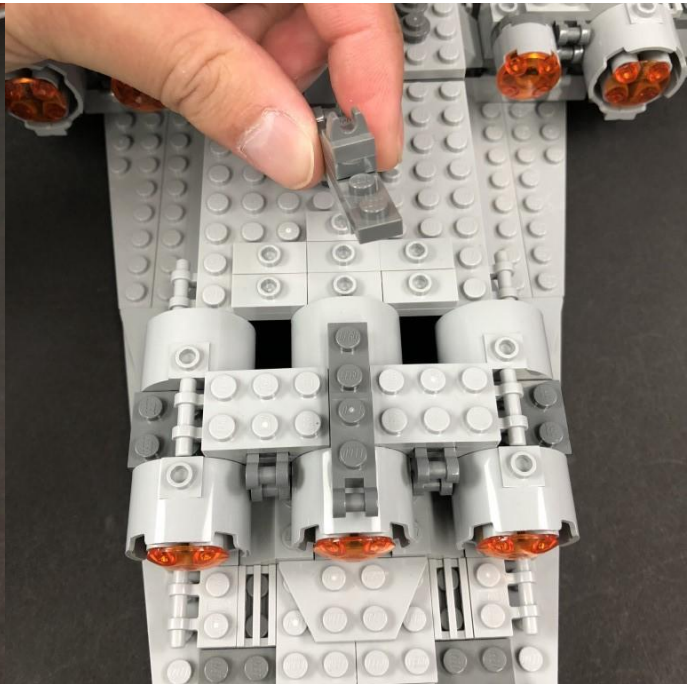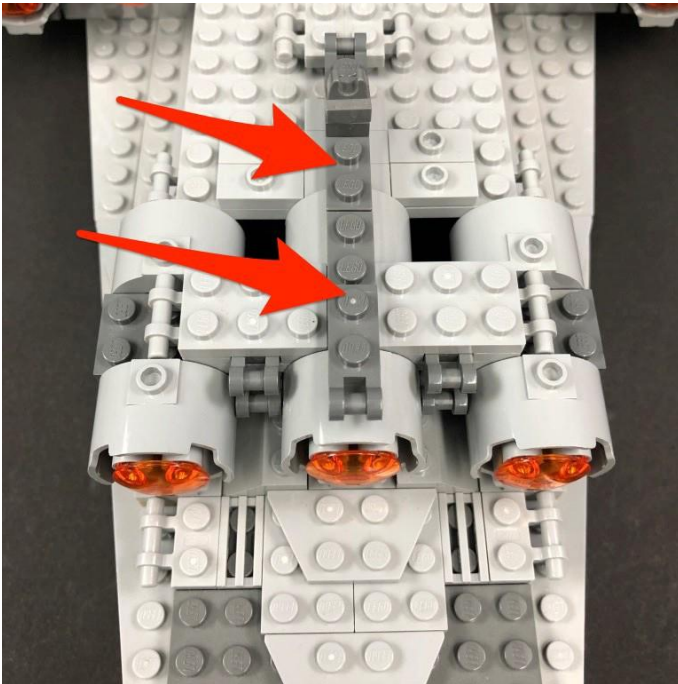
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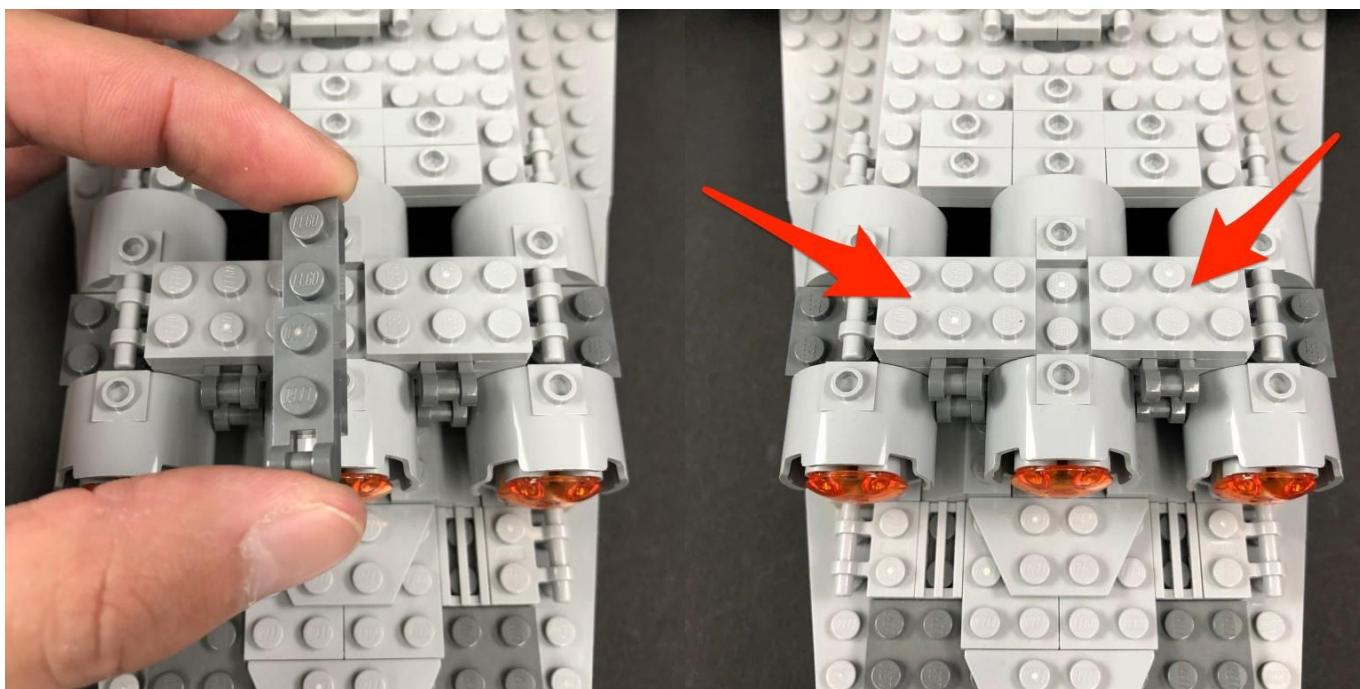
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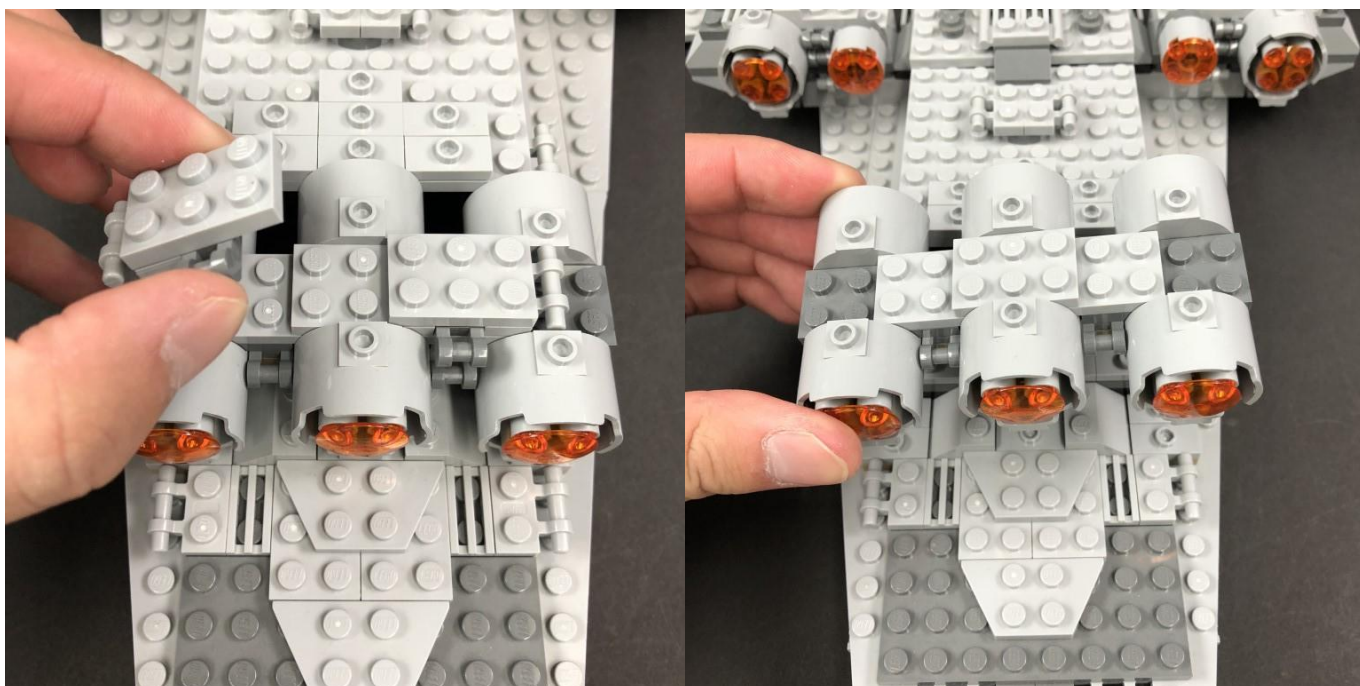
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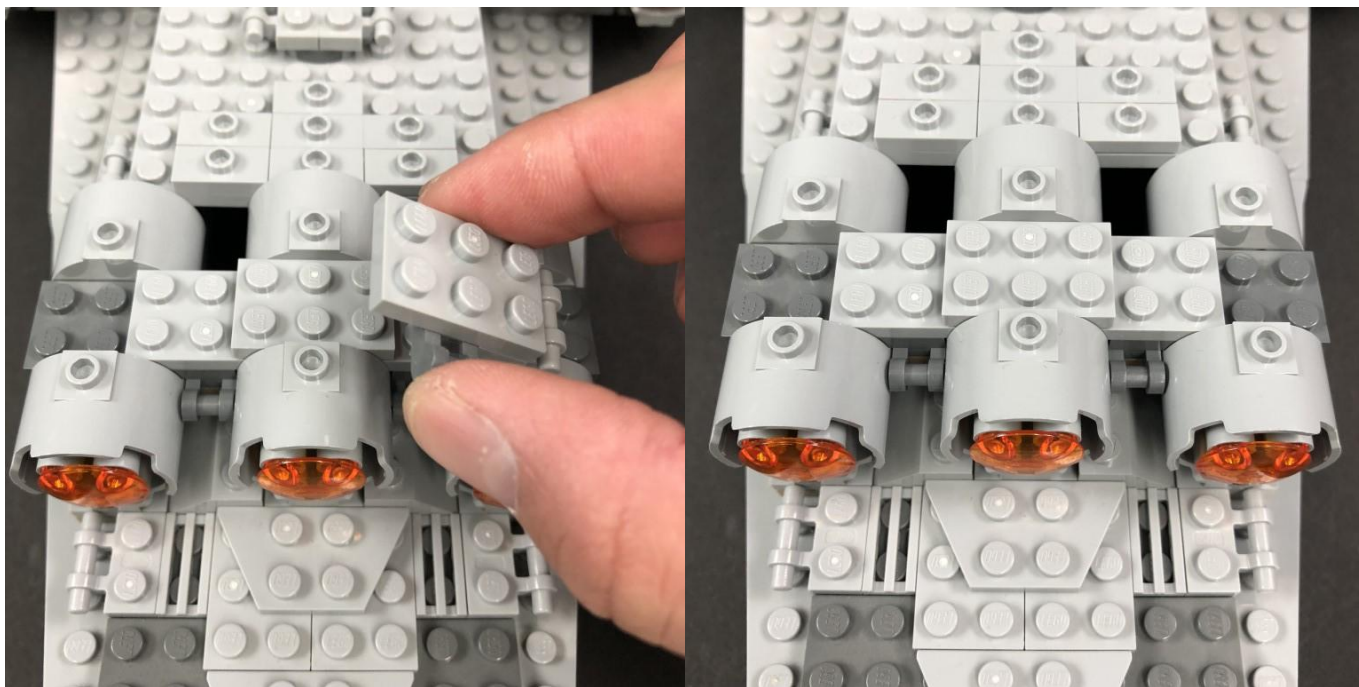
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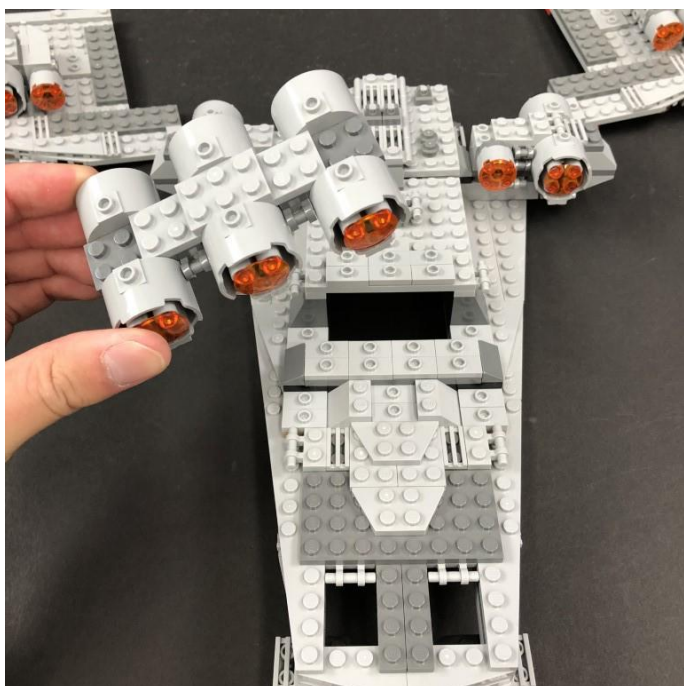
15.Follow the below images to disassemble the jet section.
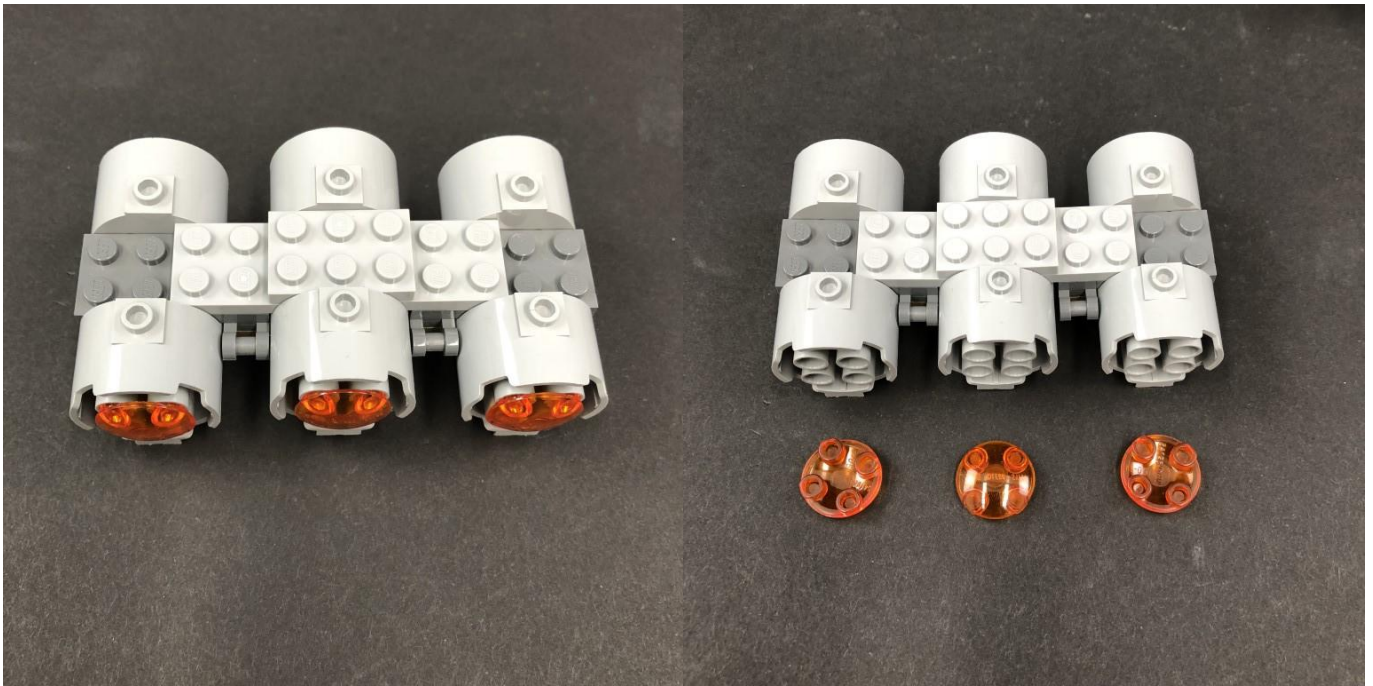
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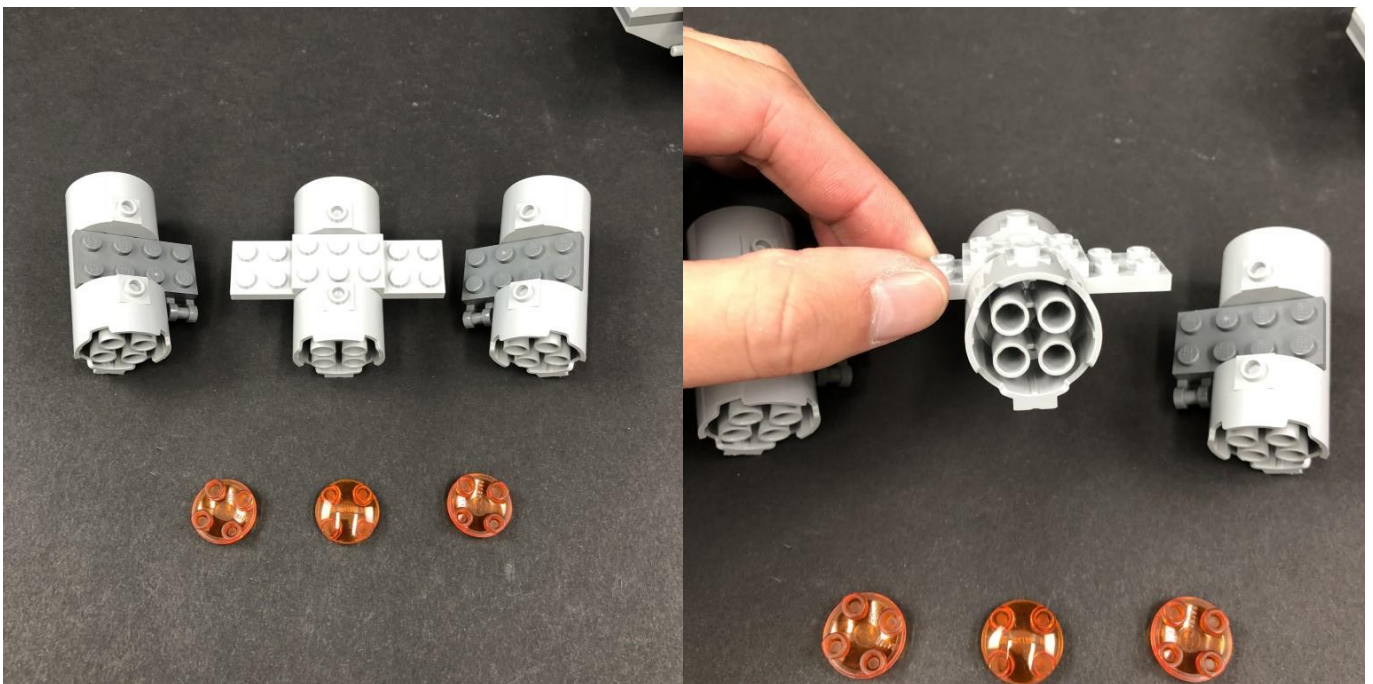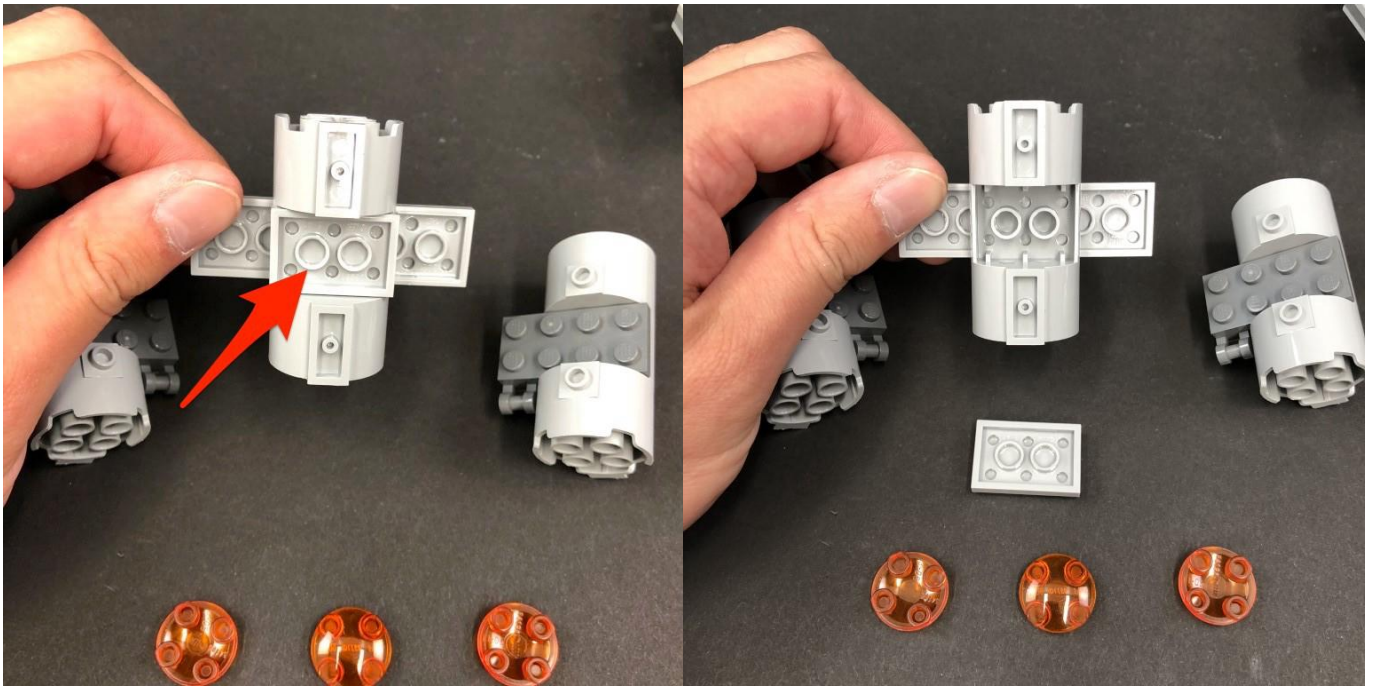
18. Take a the left jet and then turn it over so we can access the back. Take a White 30cm Dot Light and thread it down one of the bottom holes and then out to the right.

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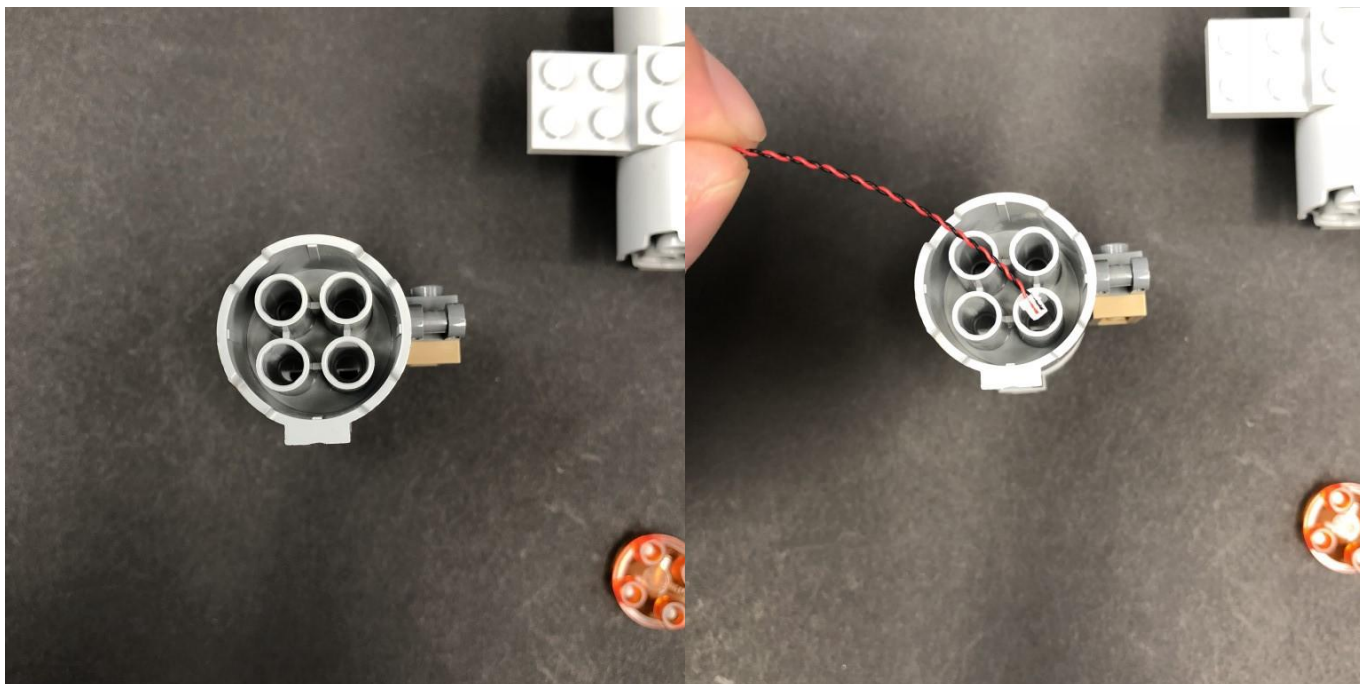
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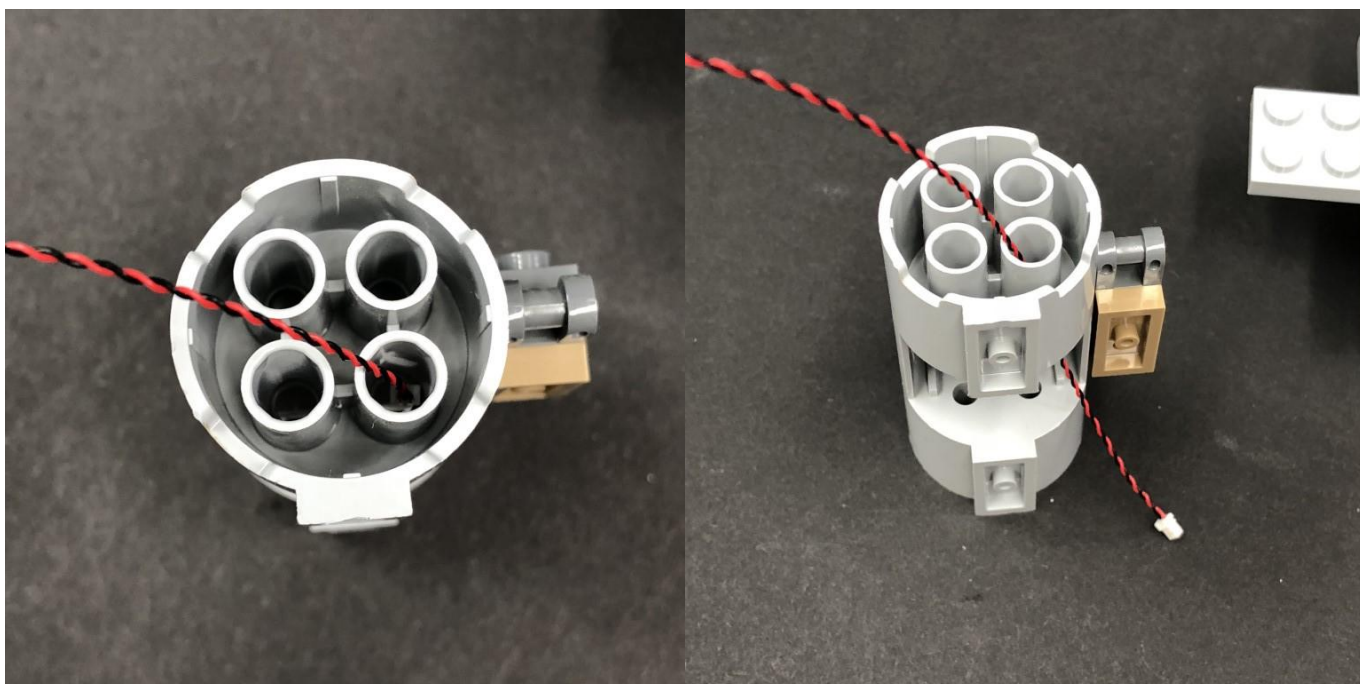
21.Thread the Dot Light all the way through and then bend it slightly toward the centre in between the four holes. Secure the Dot Light in place by reconnecting the trans orange piece over the top.
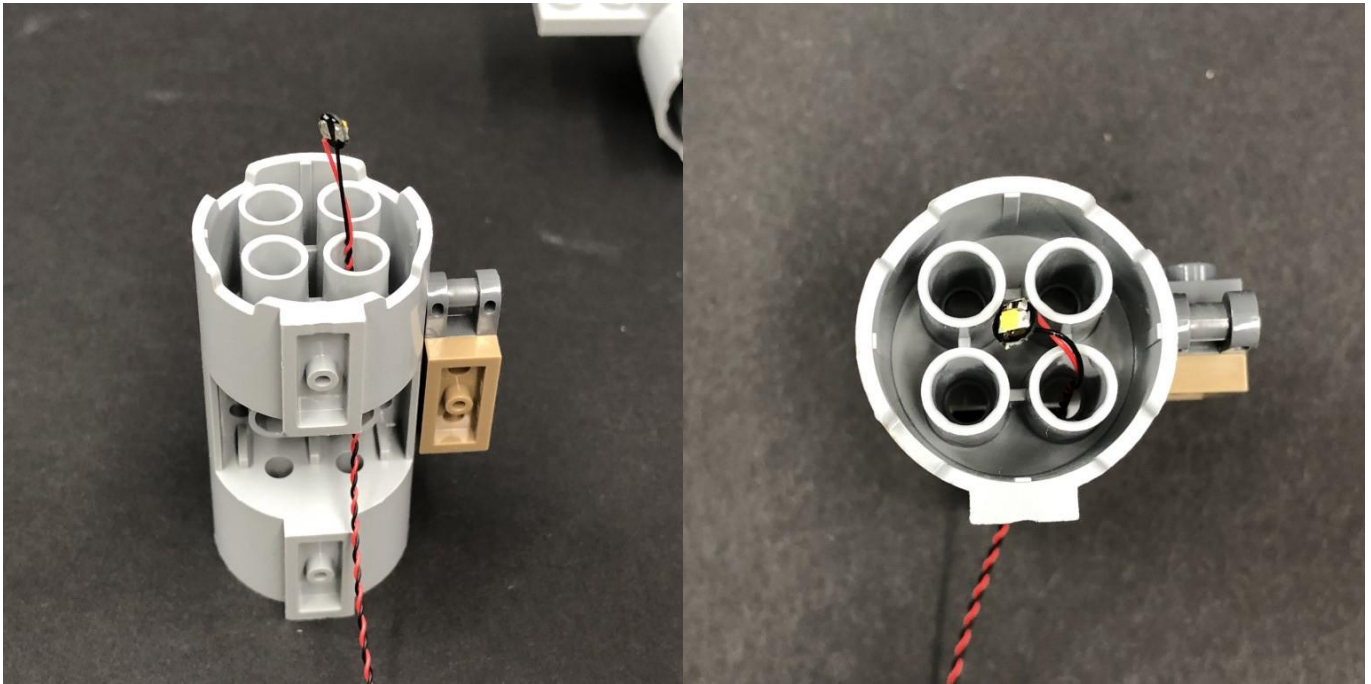
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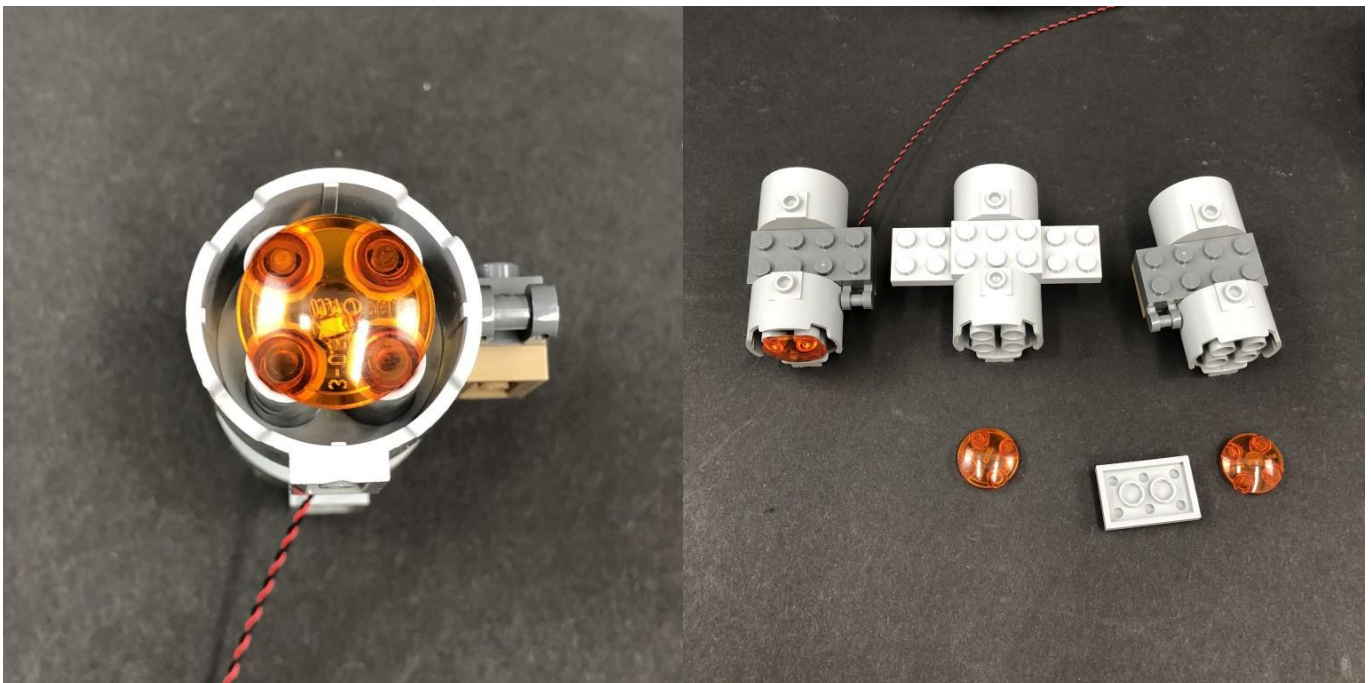
23.Take the right jet and then repeat the same process used for the left jet to install another White 30cm Dot Light to it.
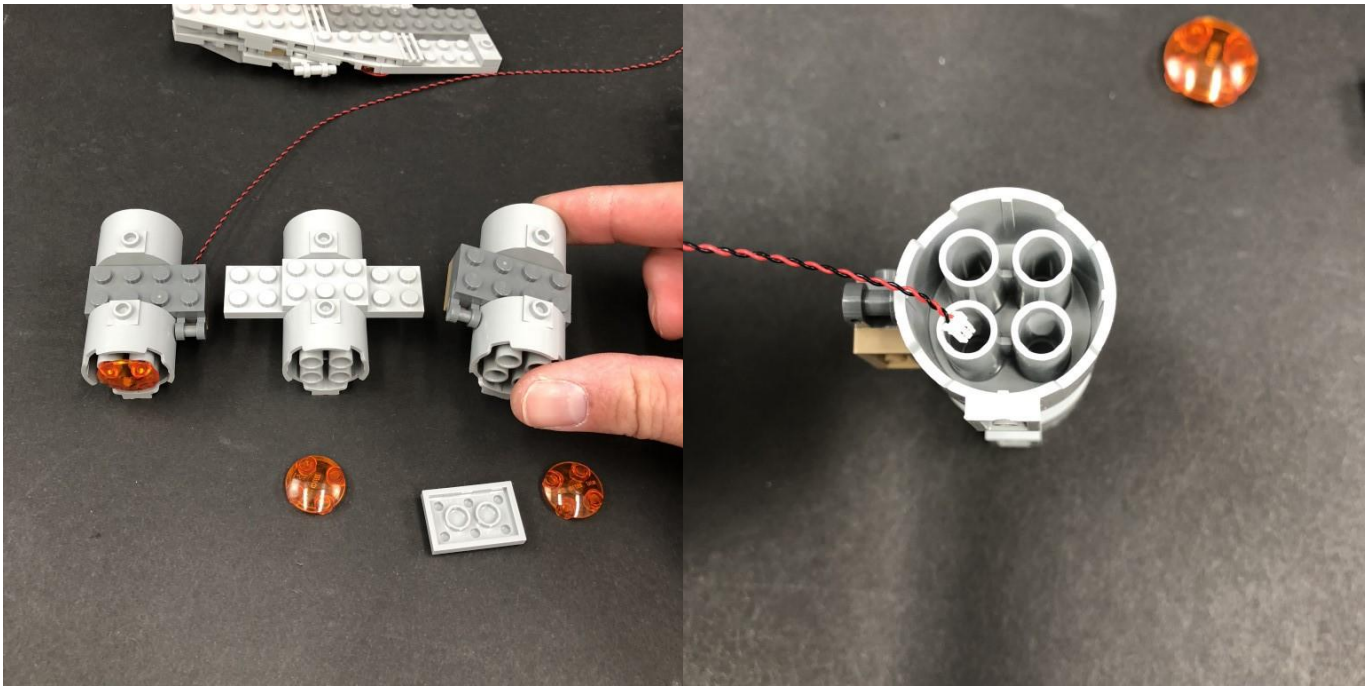
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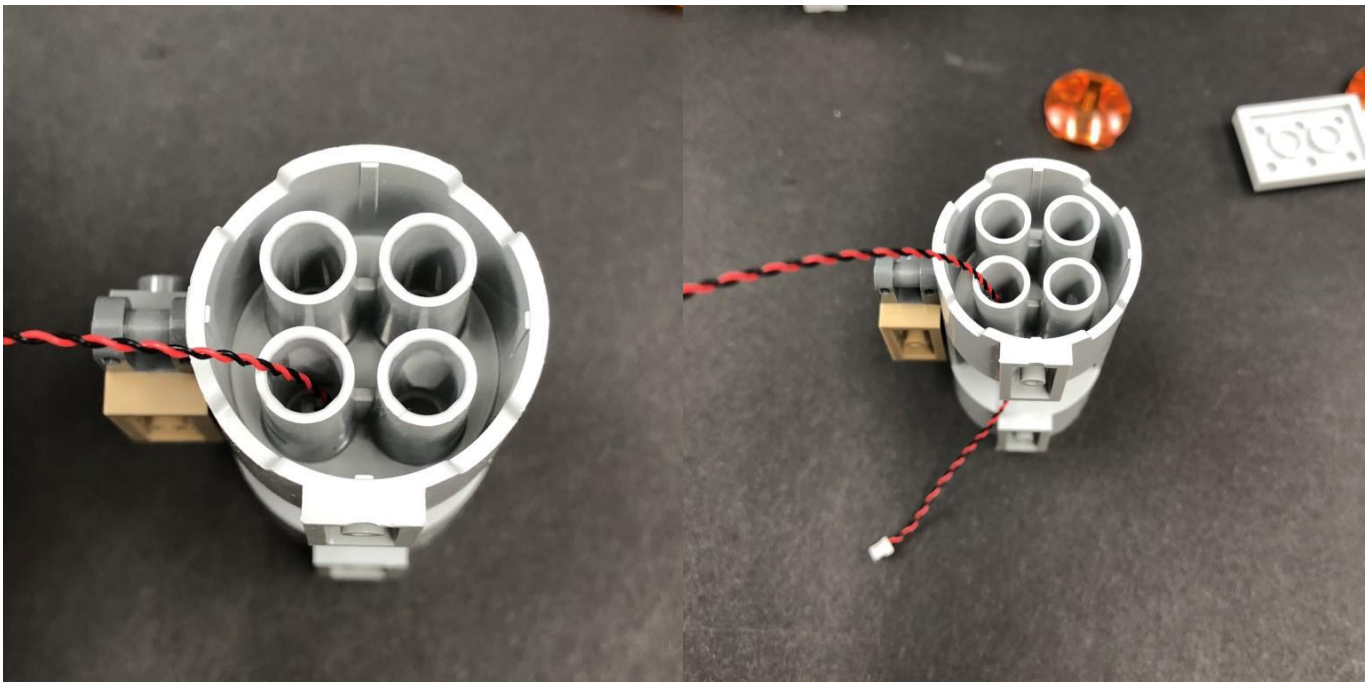
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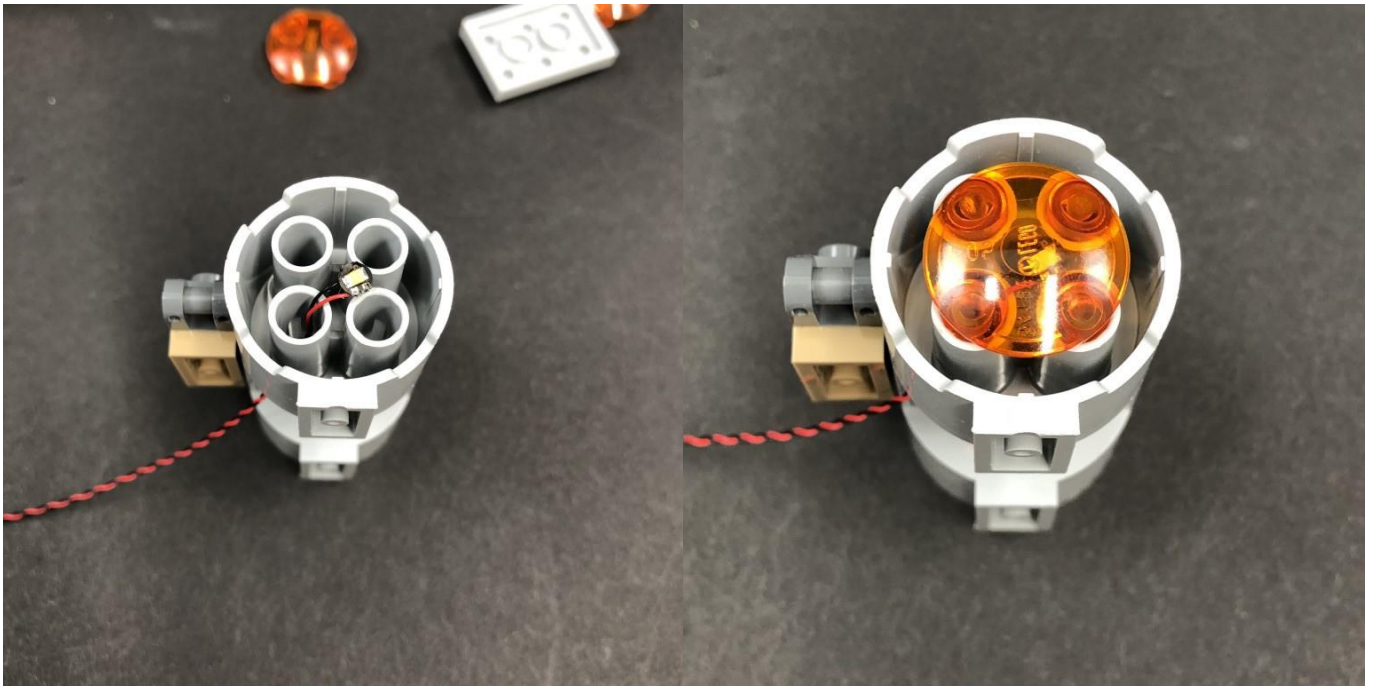
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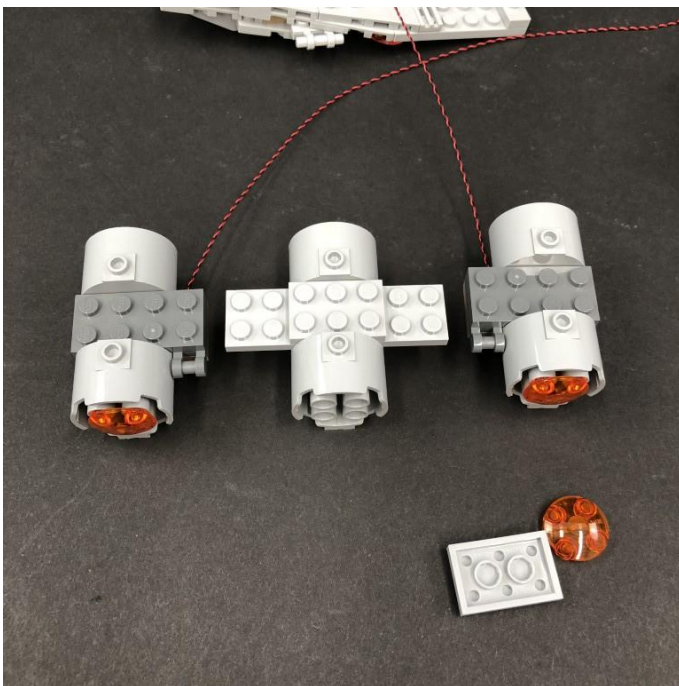
27.Take the centre jet and install another White 30cm Dot Light the same way we did for the left and right jets.
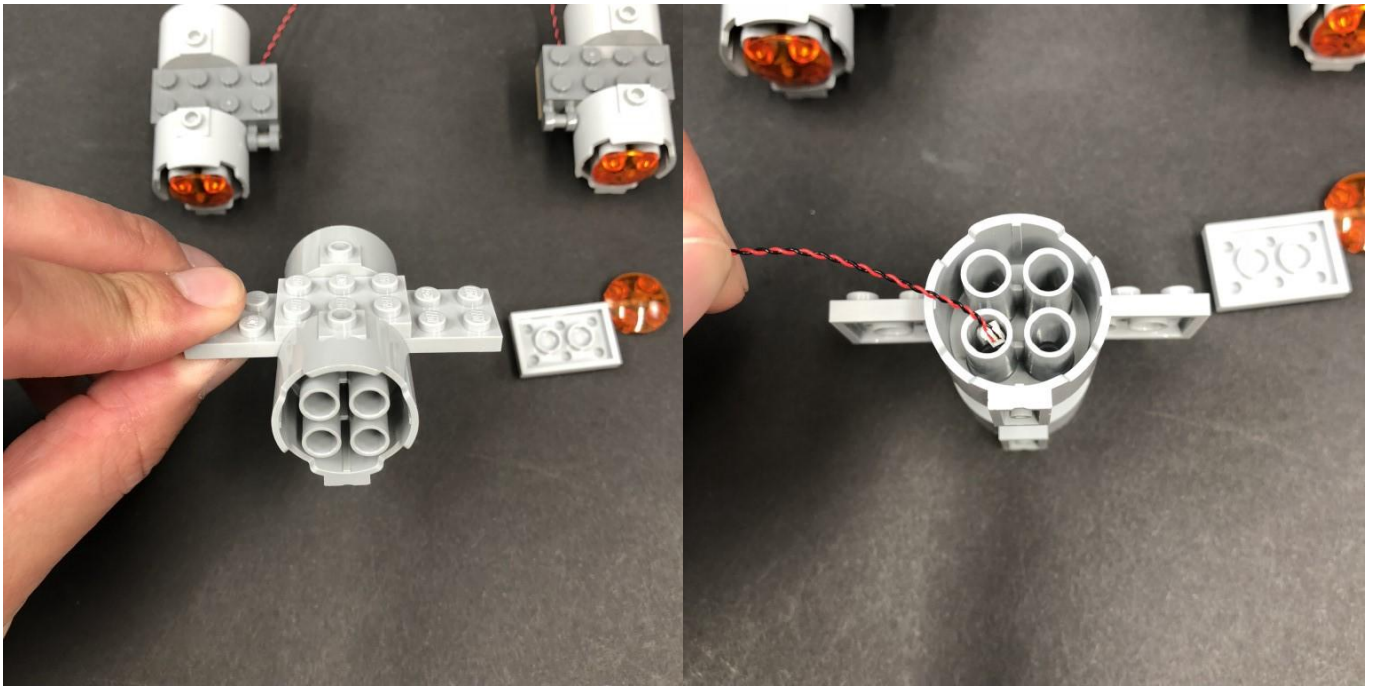
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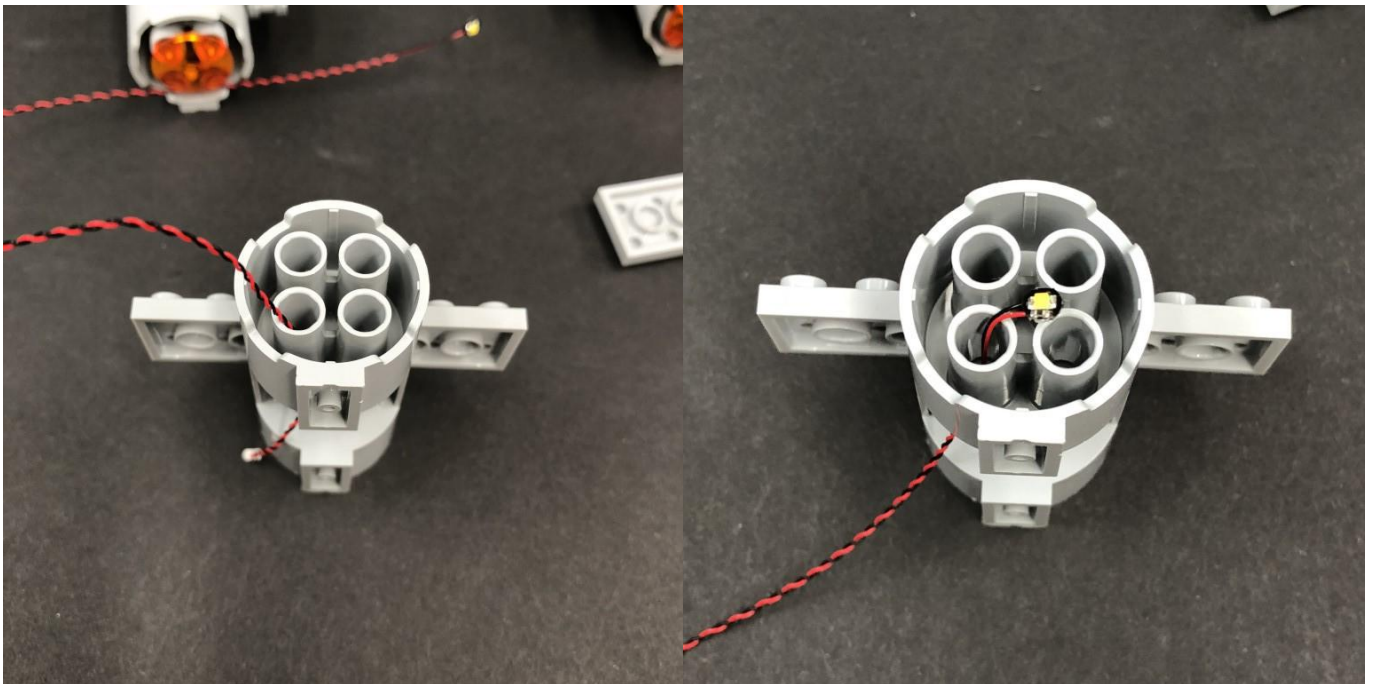
30.Turn the jet over and reconnect the 2x3 plate we removed earlier underneath ensuring the cable is laid in between studs.
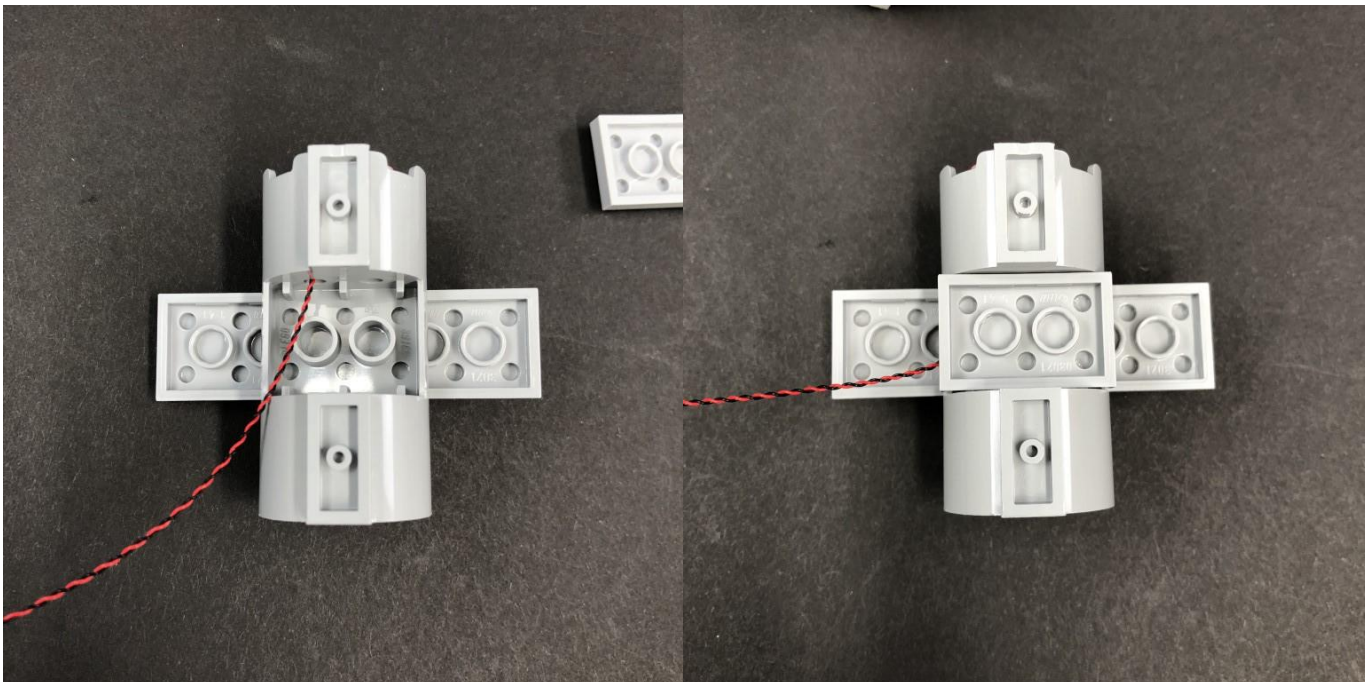
31.Reconnect the three jets together then group the three cables and thread them inside the space behind before reconnecting to the main jet section.
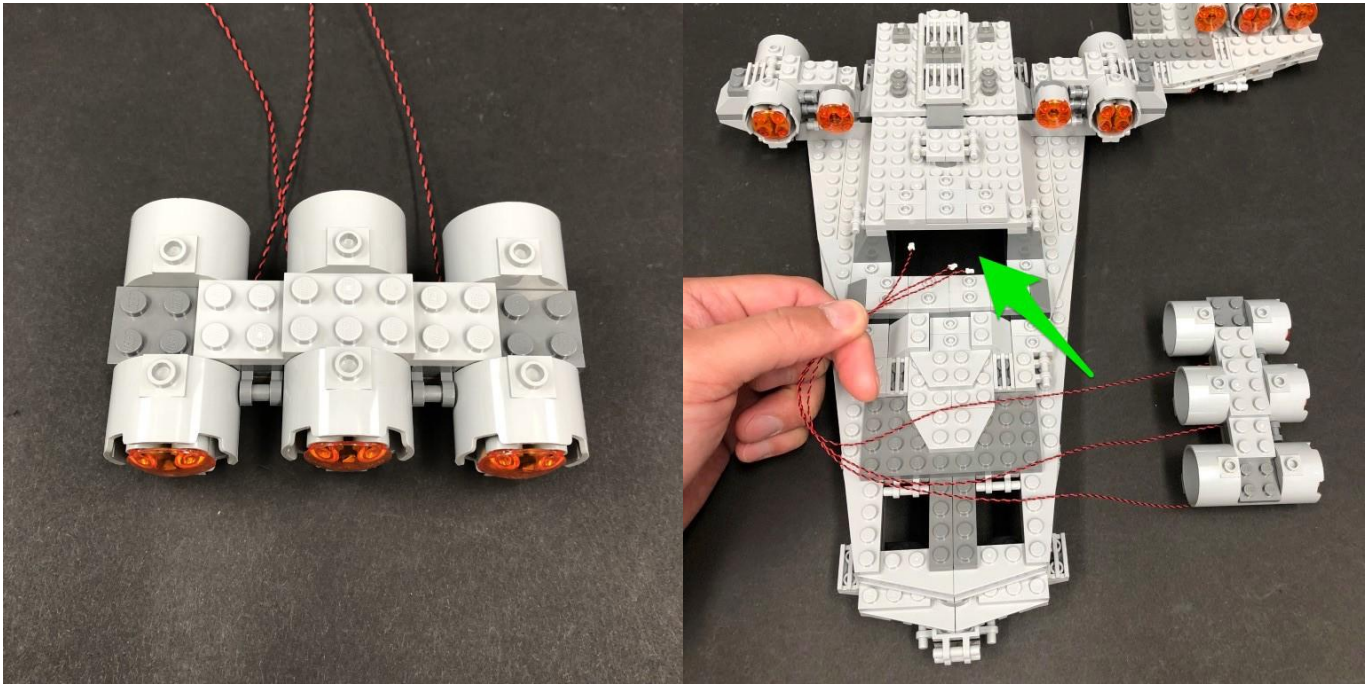
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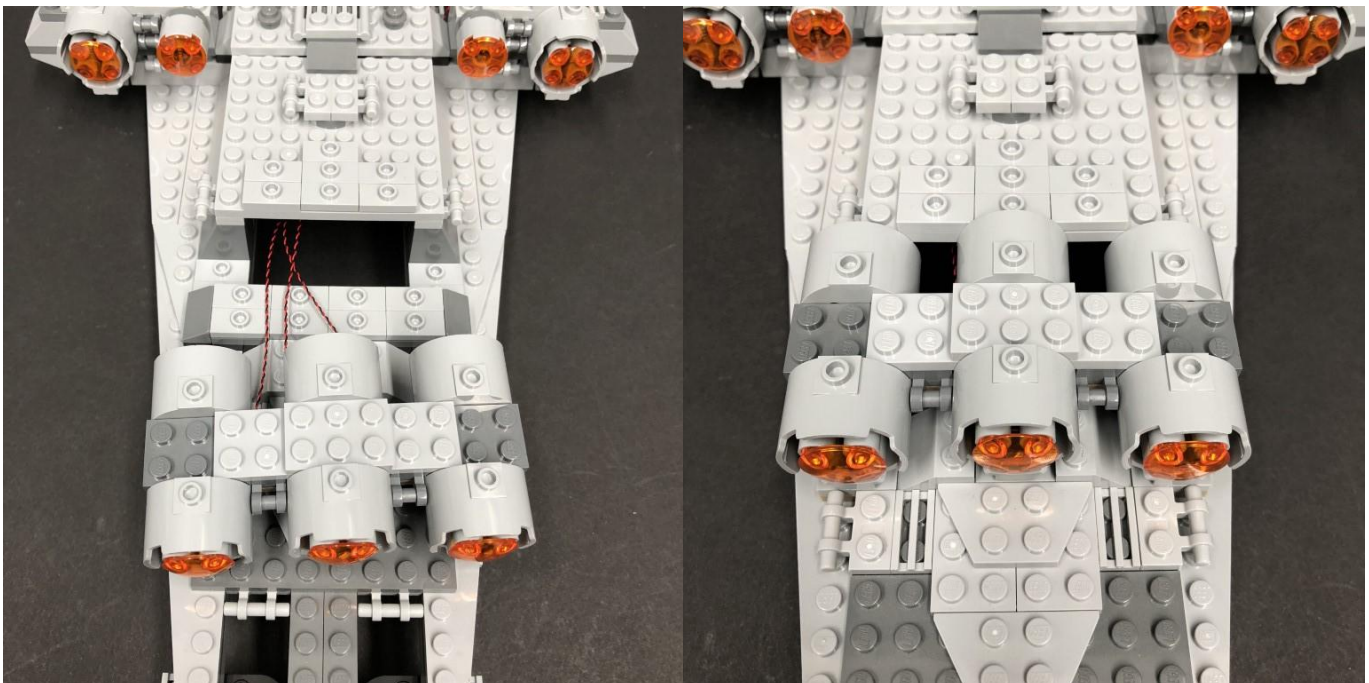
33.Reconnect surrounding pieces which we removed back at step 2.
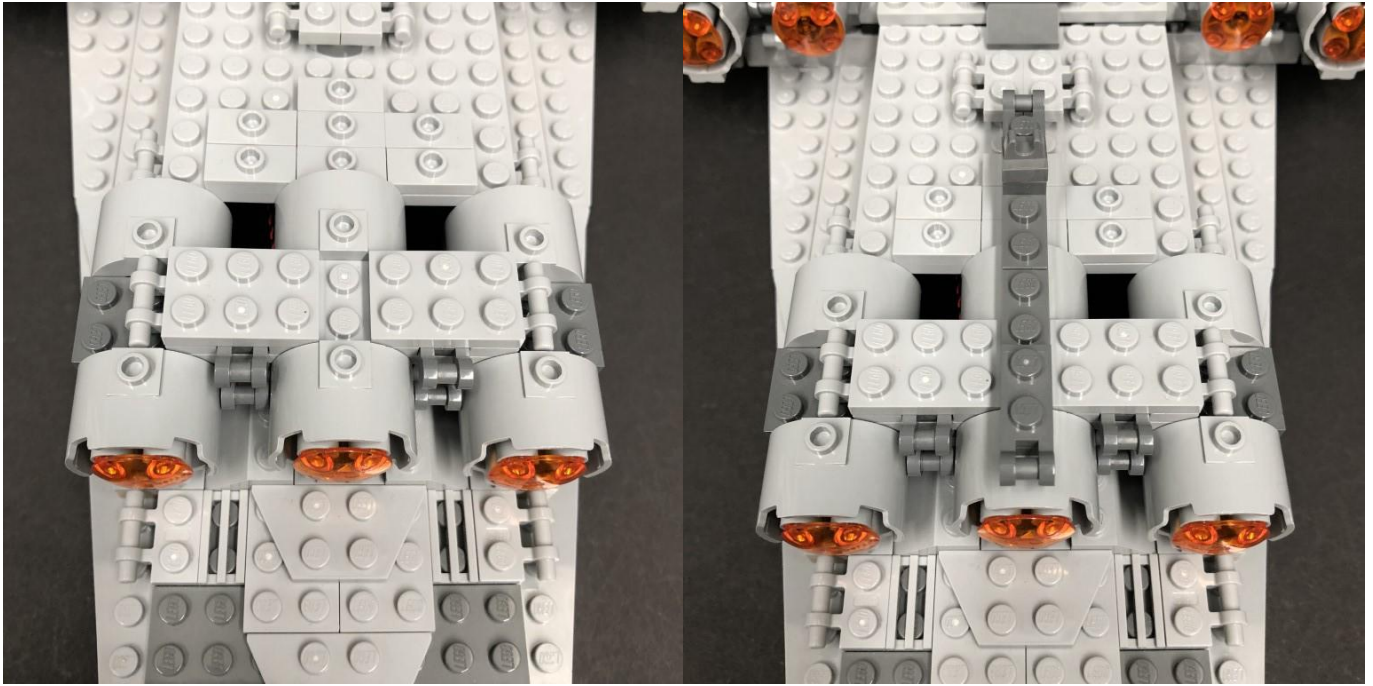
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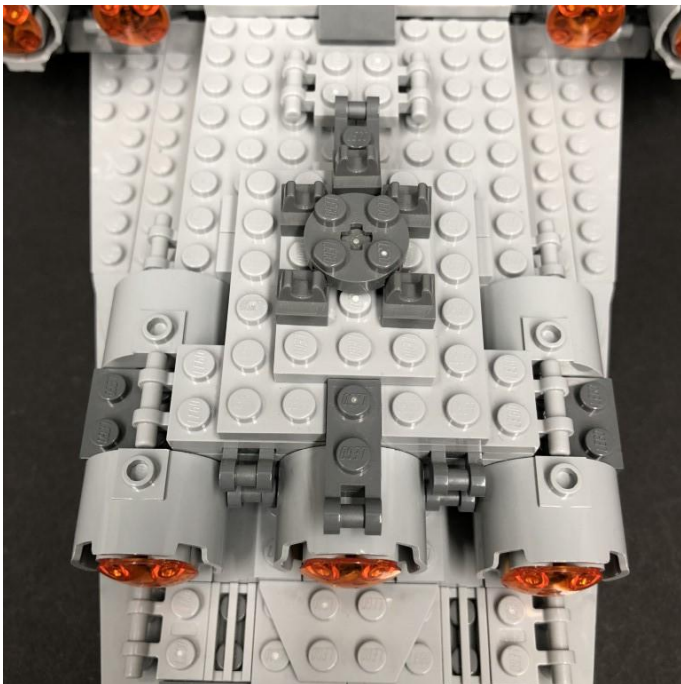
35.Disconnect the left set of jets from the main section and then follow the images below to disassemble it.
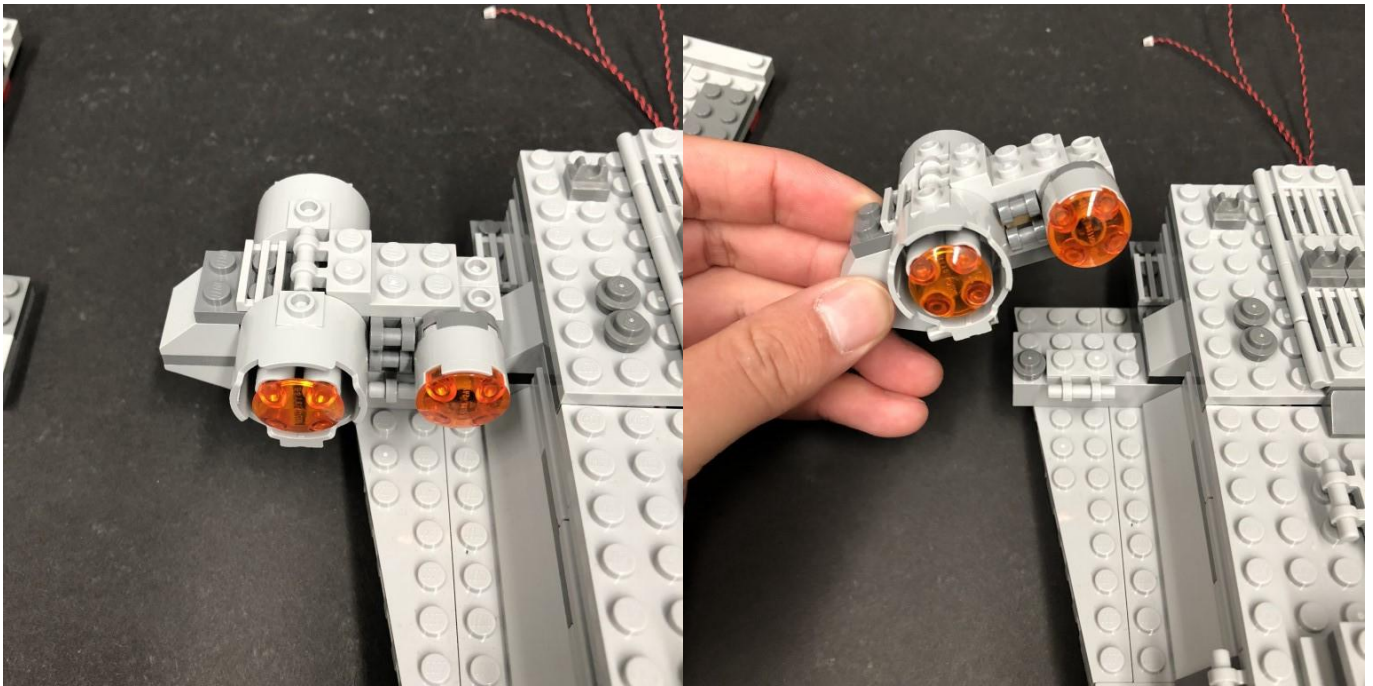
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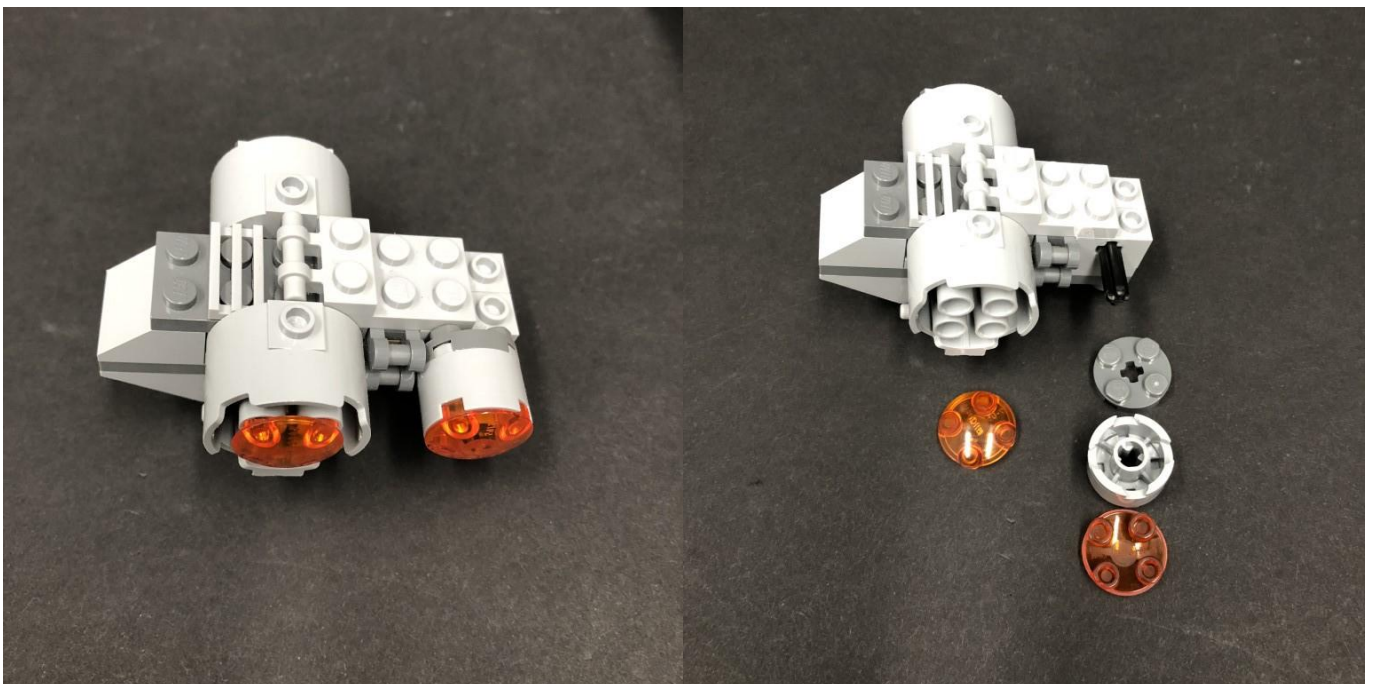
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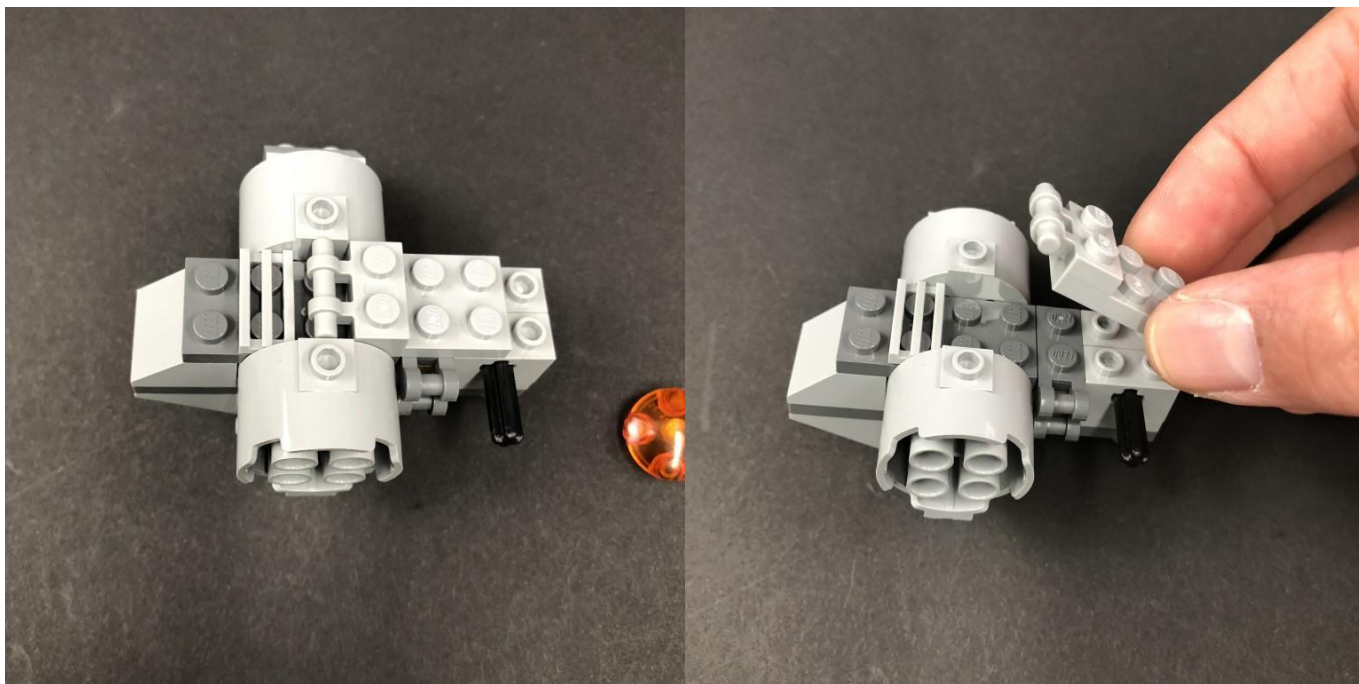
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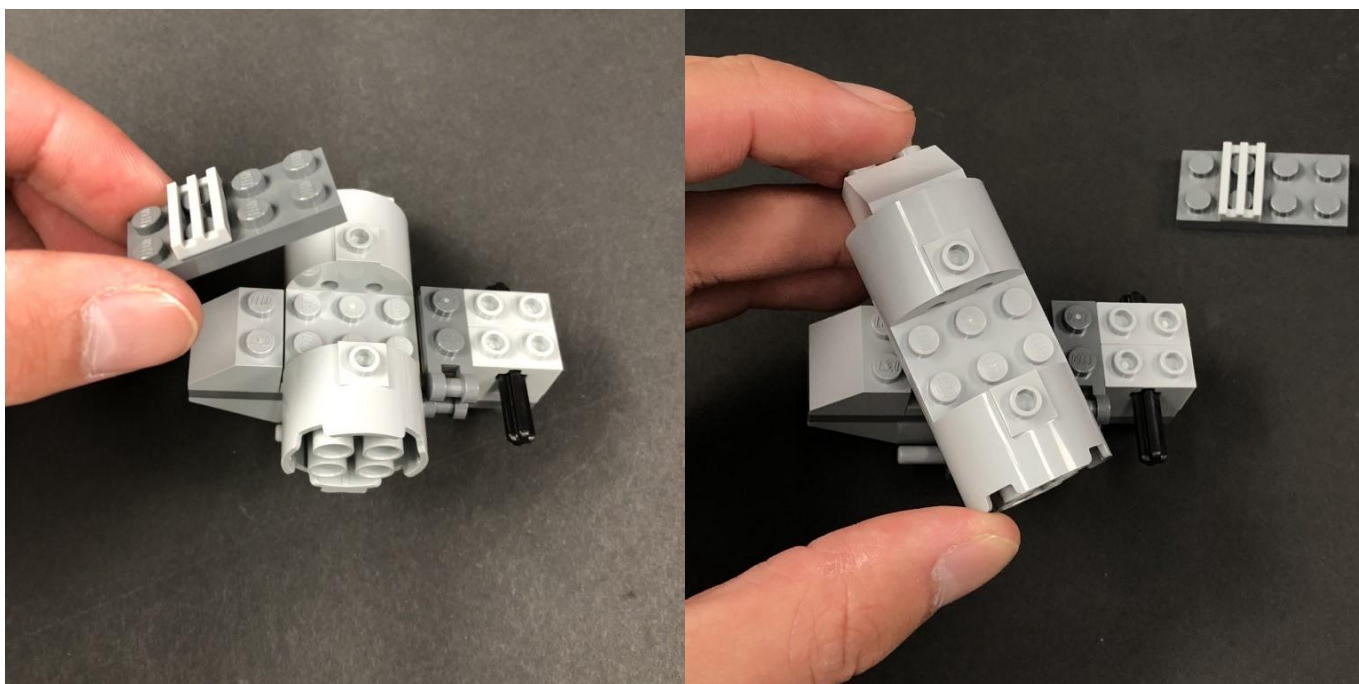
39.Turn the below piece over to access the back then install another White 30cm Dot Light the same way we did for the previous jets.
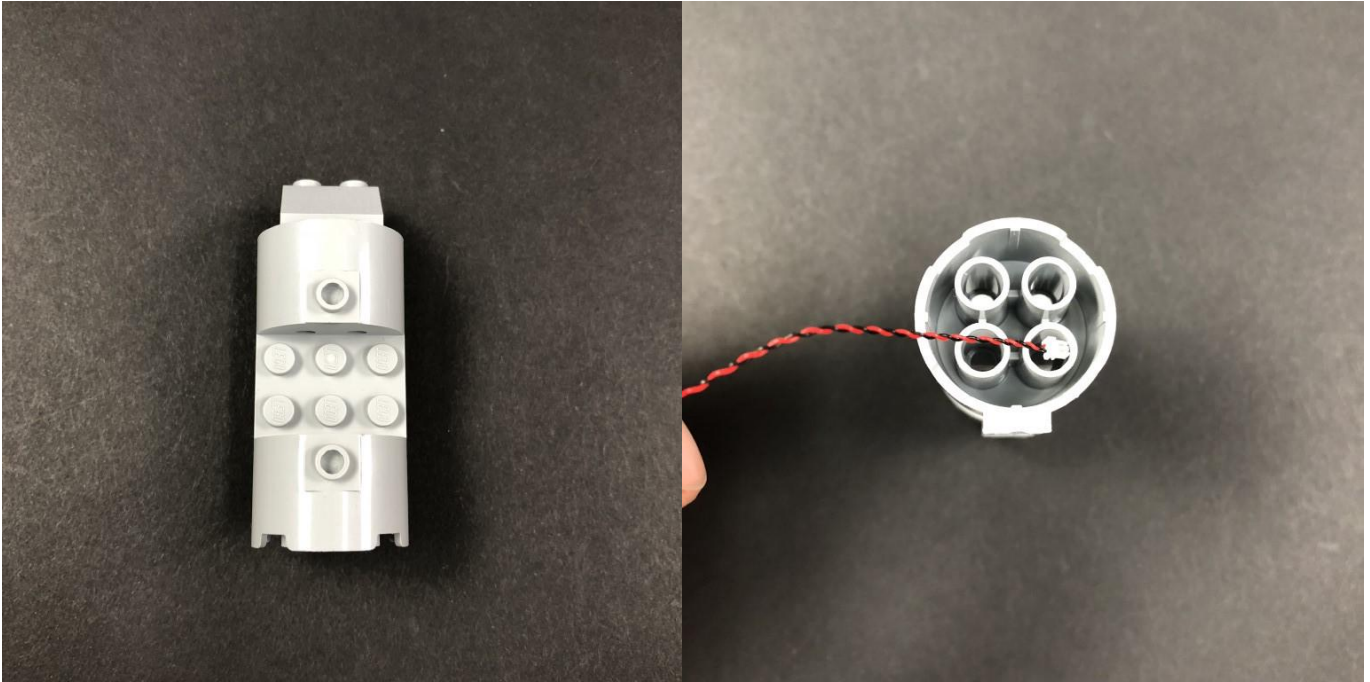
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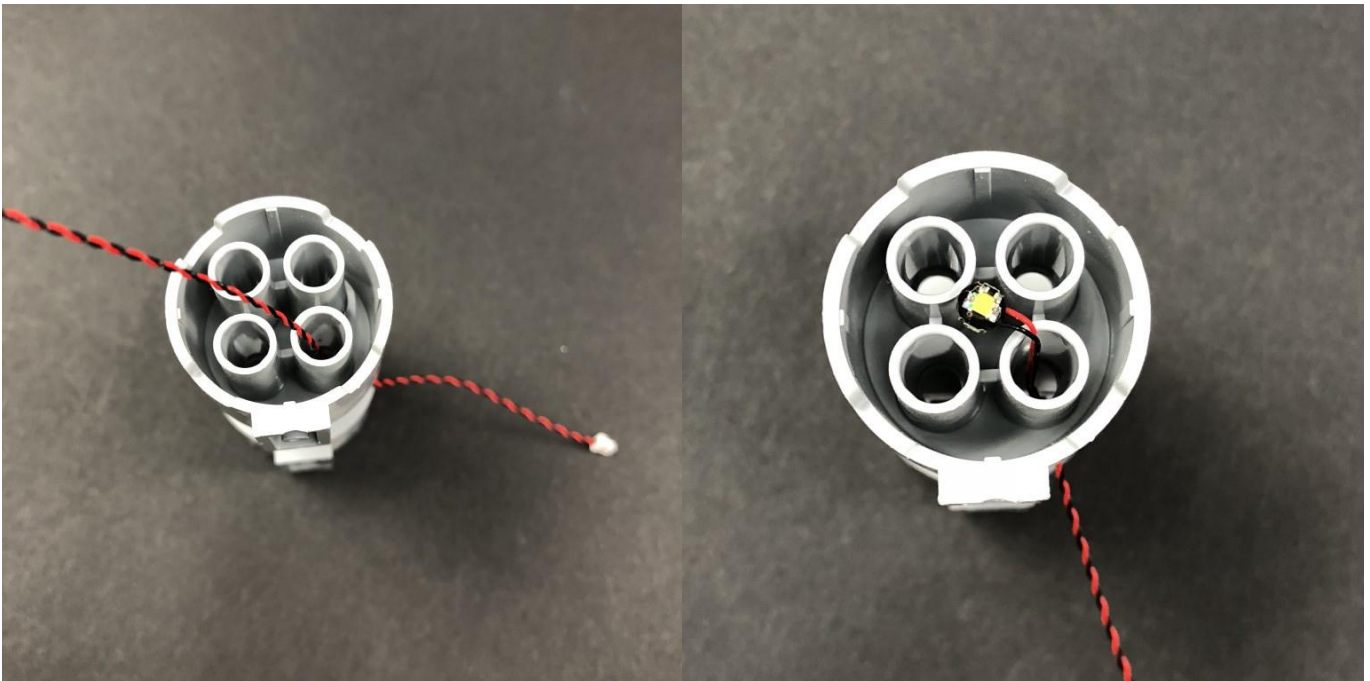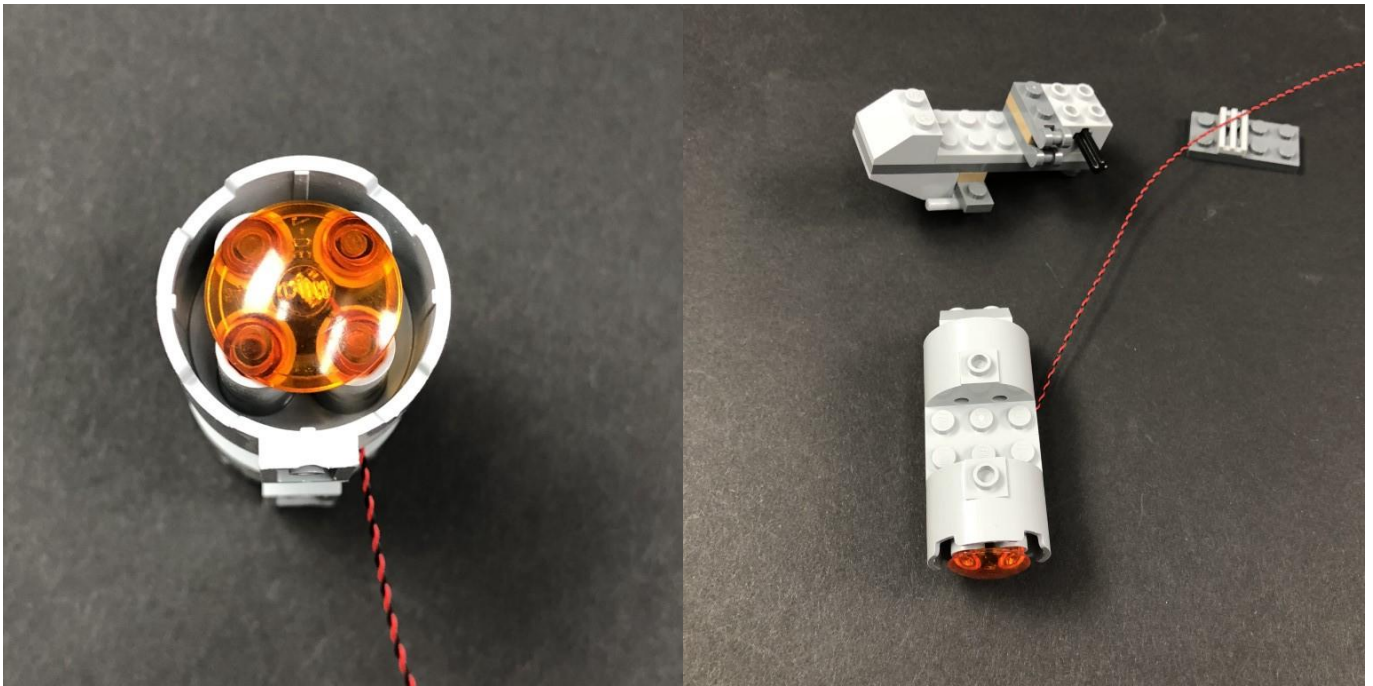
42.Reconnect this piece back to the rest and then reconnect surrounding pieces.
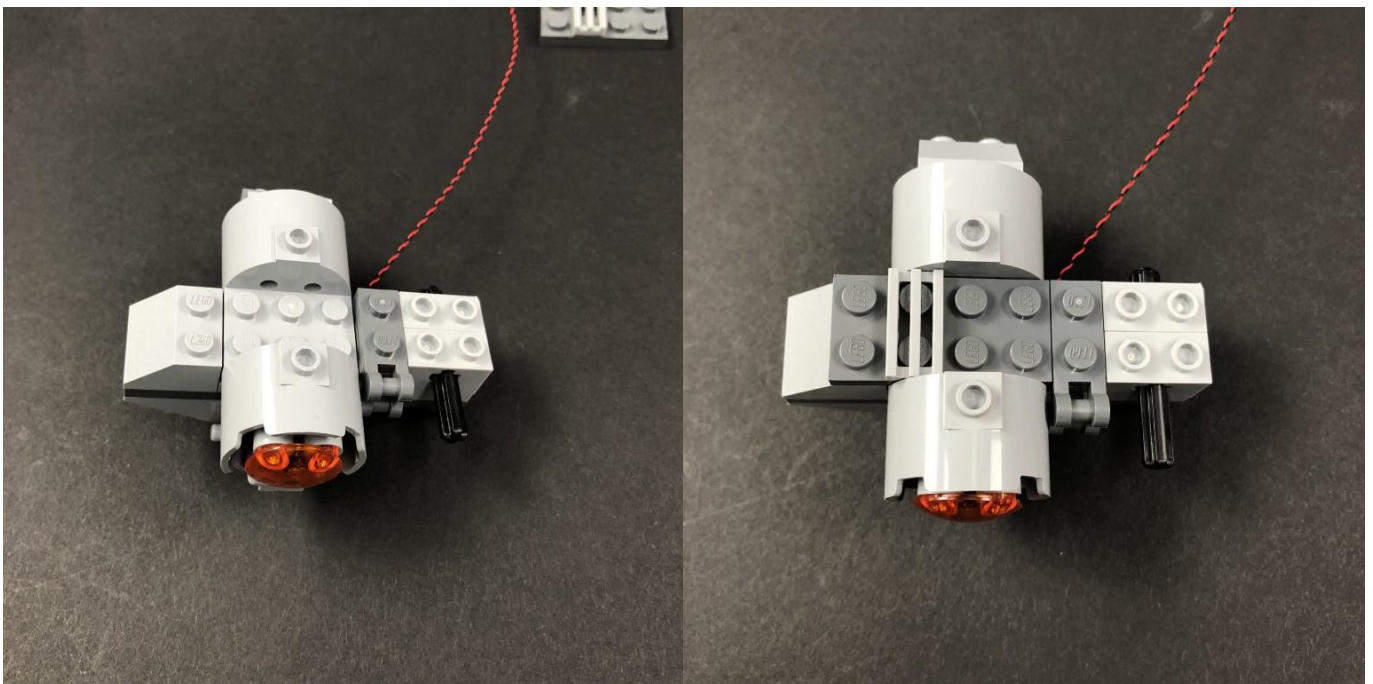
43.Take the following 2x2 round brick and turn it over to access the base of it. Take another White 30cm Dot Light and thread it through the centre hole all the way through.
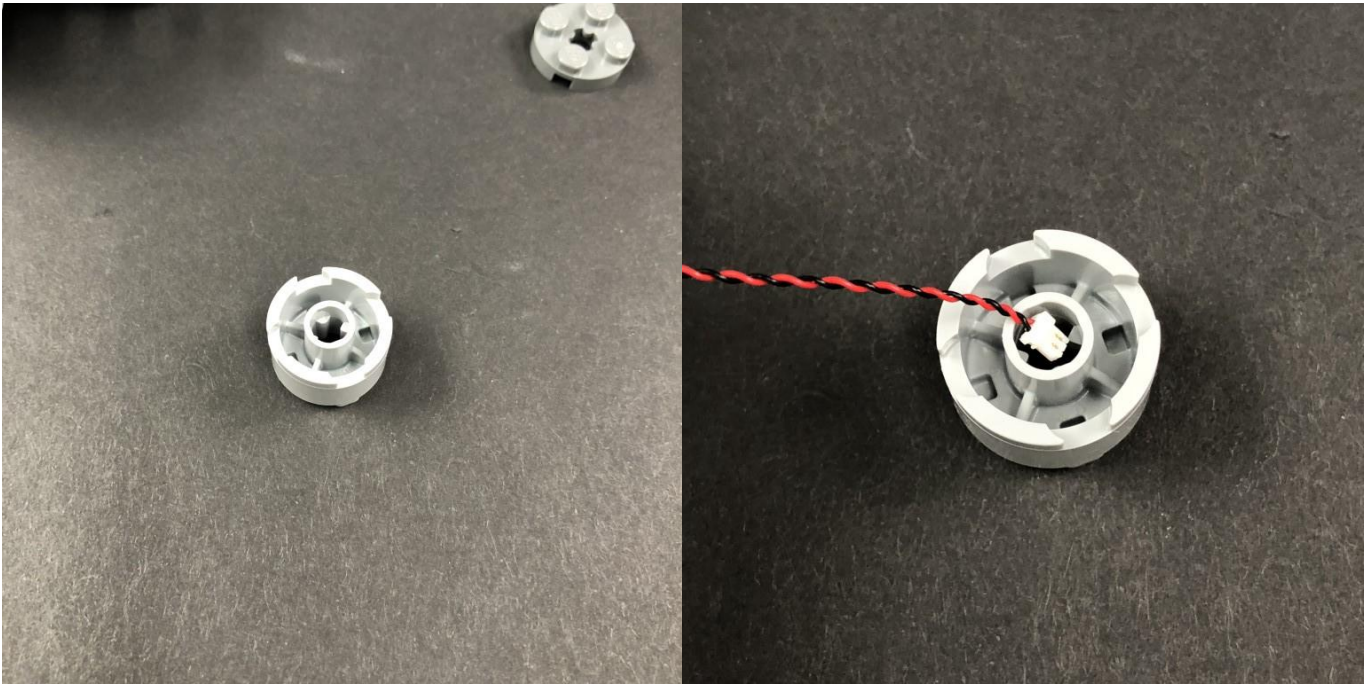
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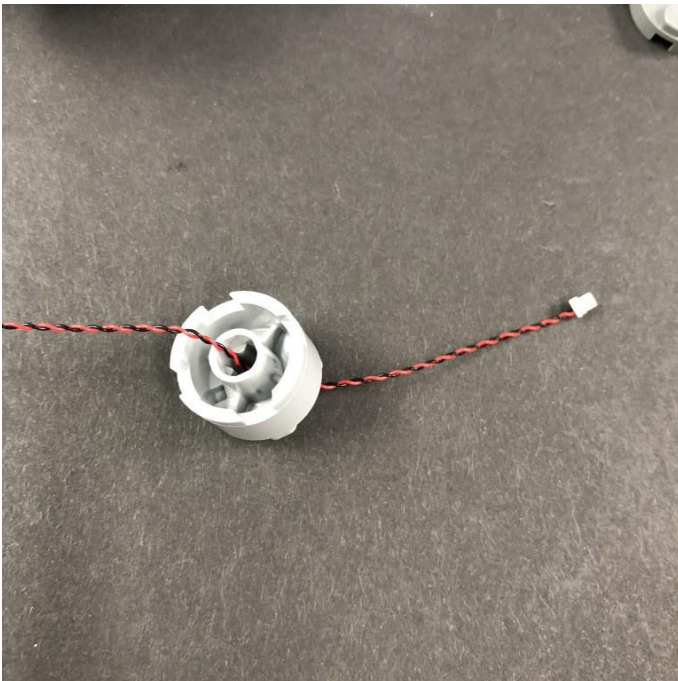
45.Important Note: Allow some excess cable inside the hole of the round brick for the technic bar to push through the back. Do not pull the cable all the way through to the end otherwise the cable may break when inserting back onto the technic bar.
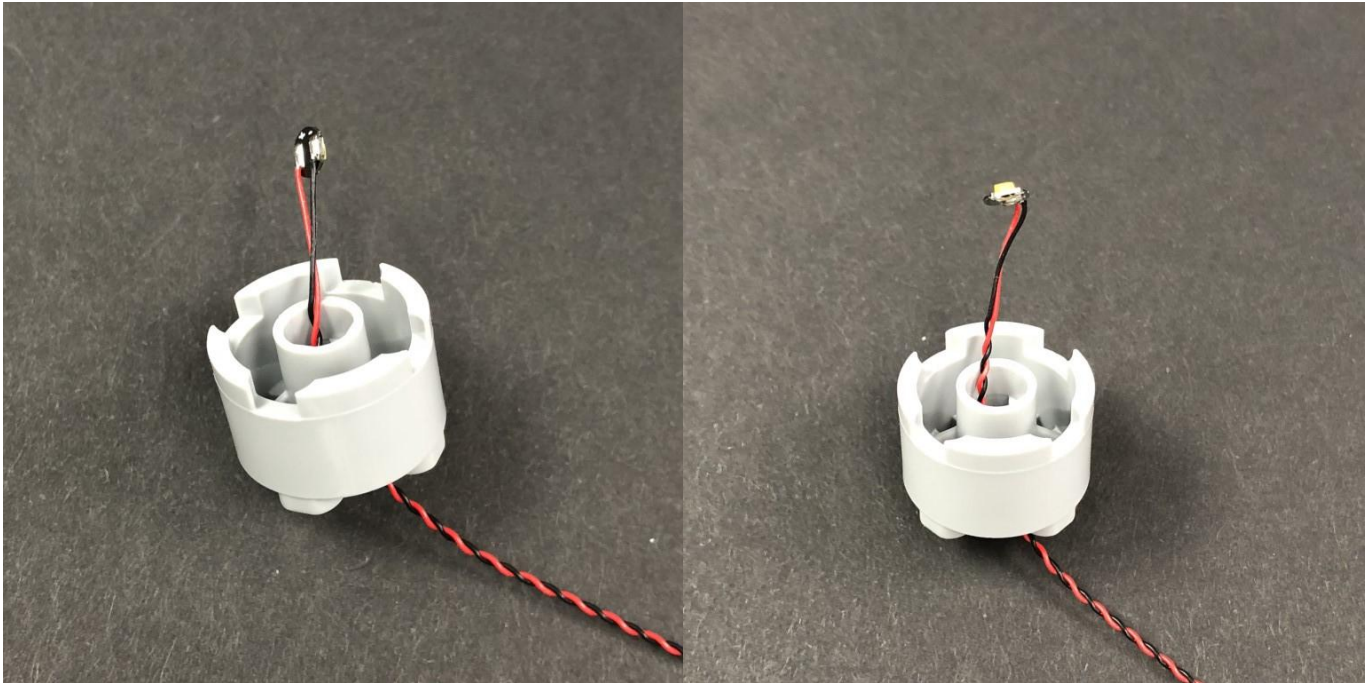
46

47.Turn the piece over and reconnect the dark grey round plate ensuring the cable is laid in between the studs.
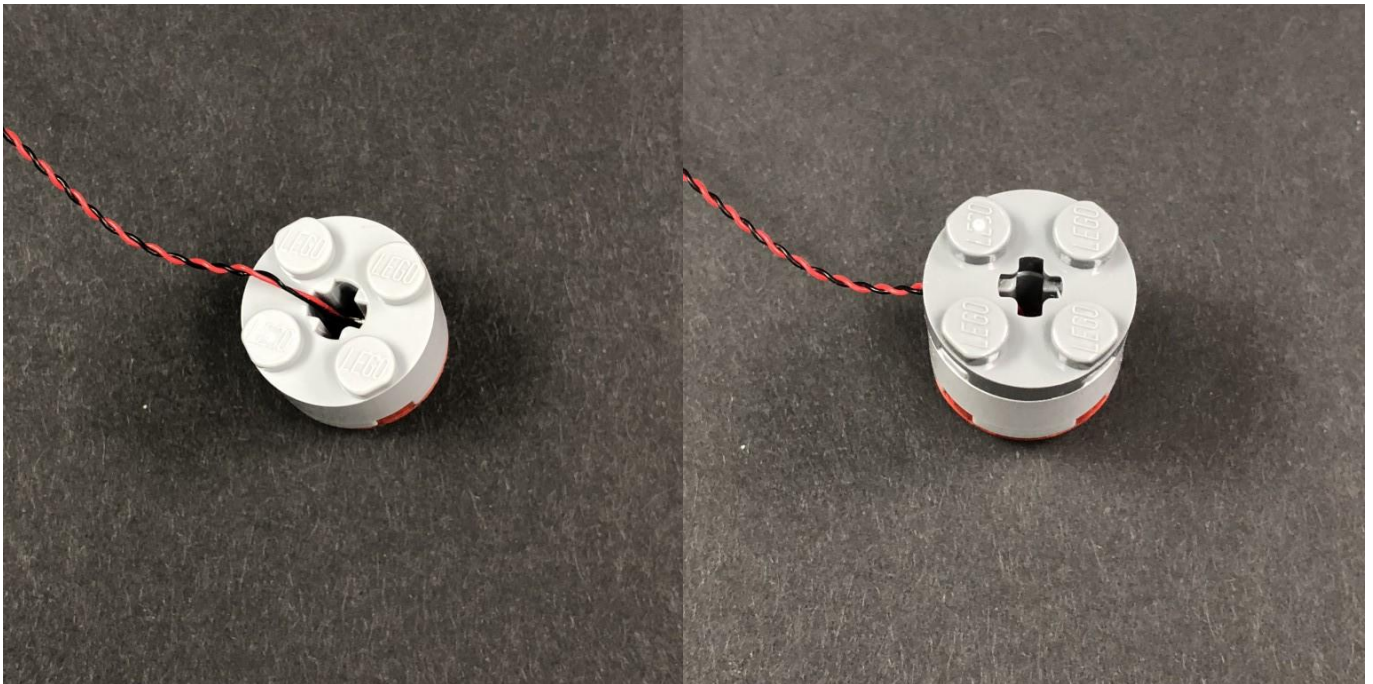
48.Reconnect this piece by pushing it back onto the technic bar. Do this very carefully to ensure the cable does not break. Reconnect surrounding pieces we removed earlier
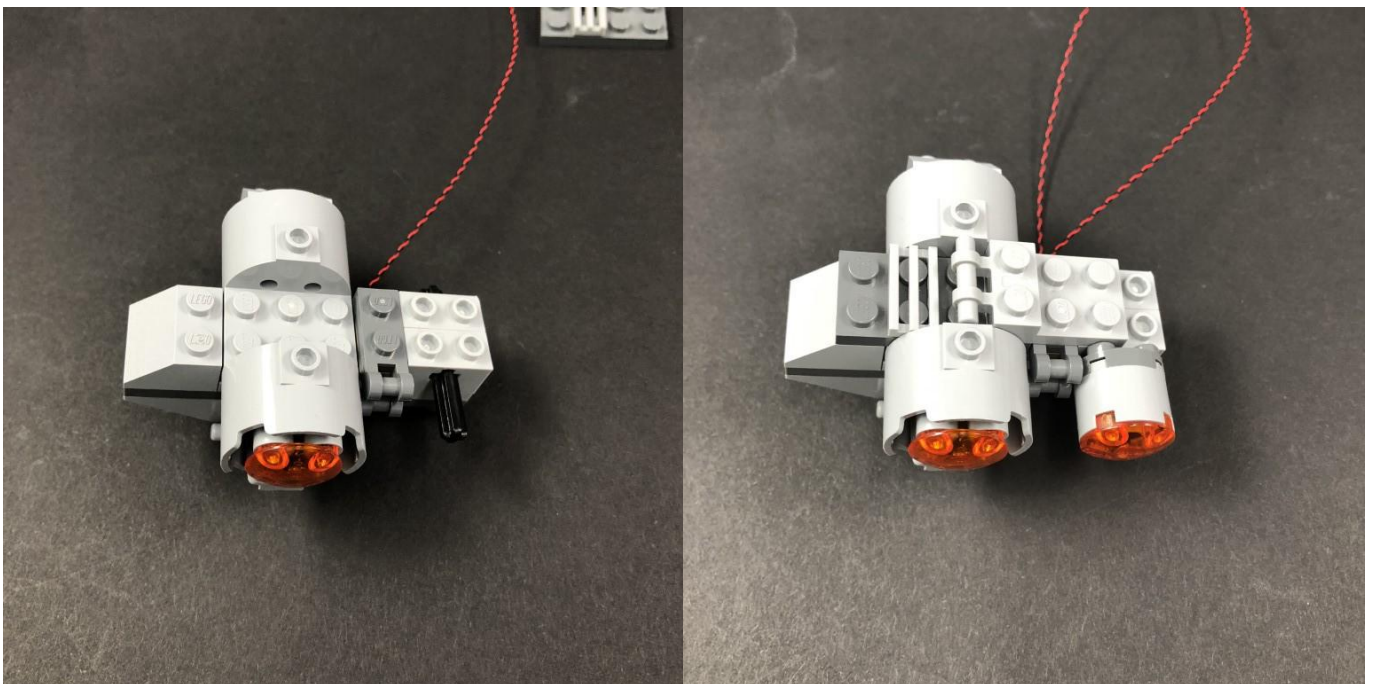
49.Turn this section over and then lay the cable underneath the 1x4 plate as per below then reconnect this section back to the main centre section.
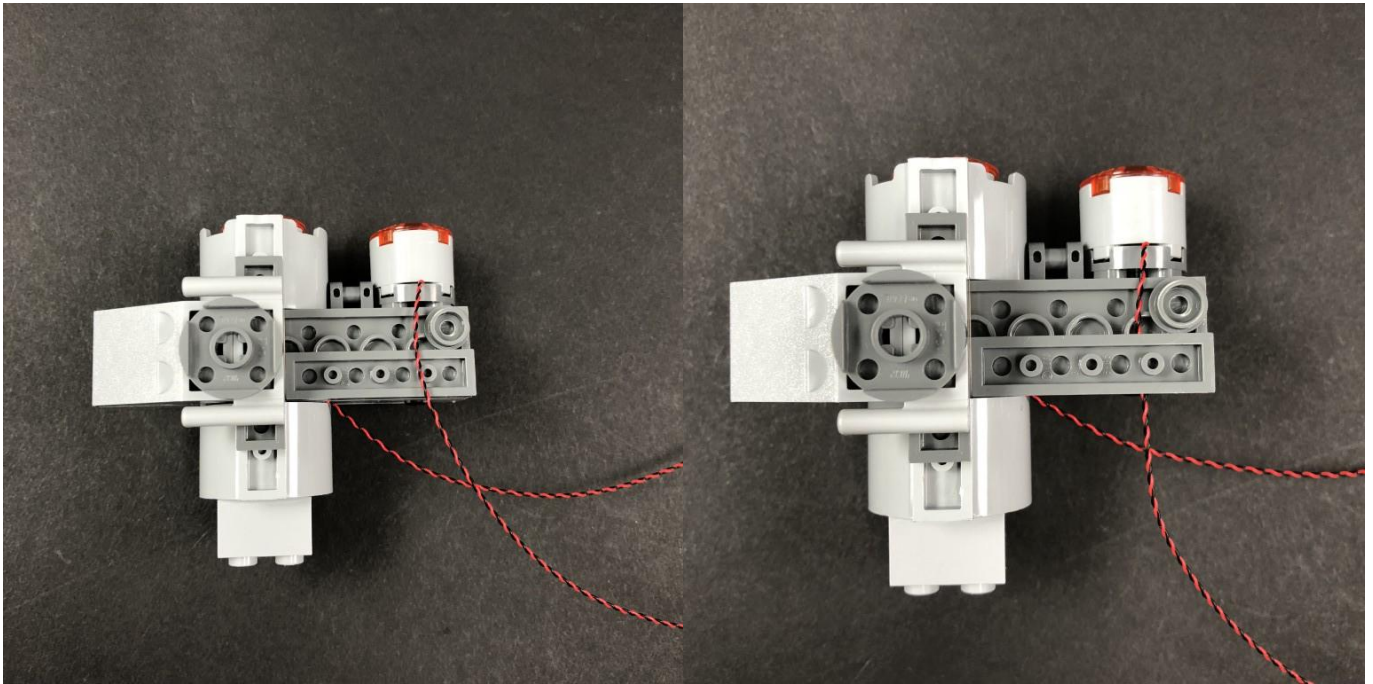
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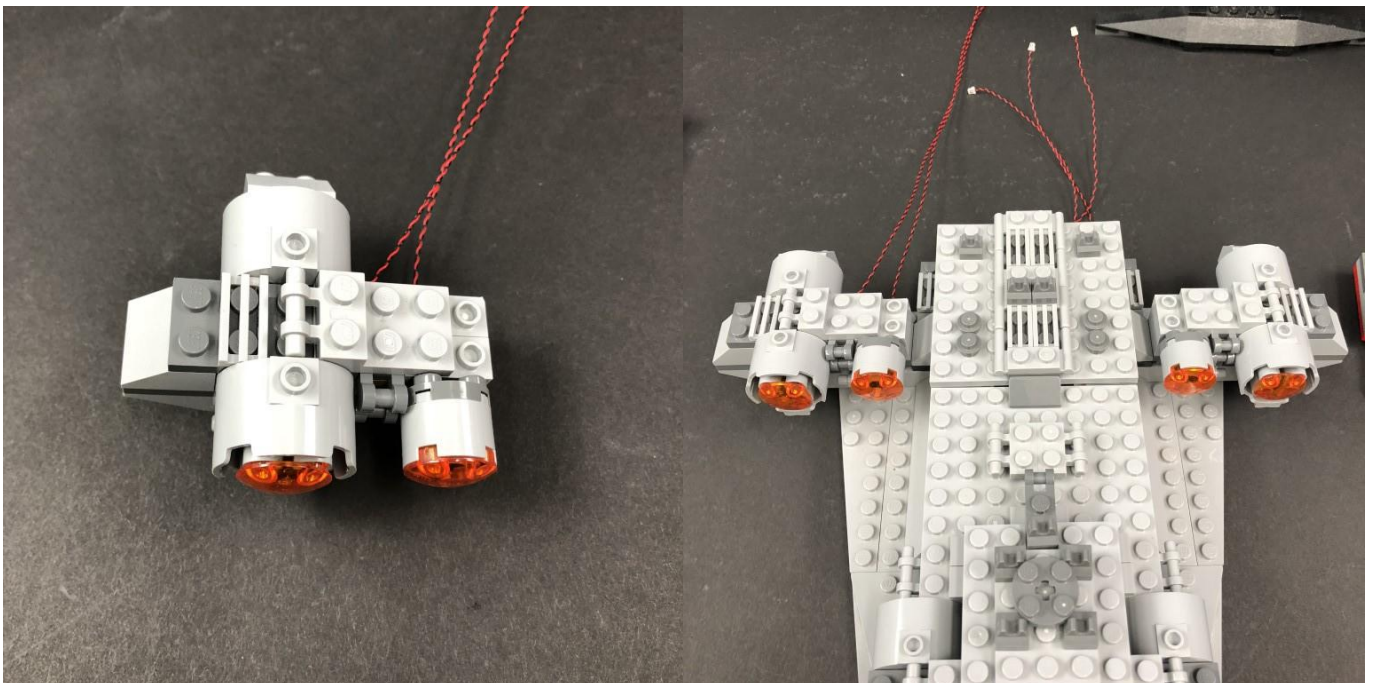
51.Disconnect the right set of jets and then install another 2x White 30cm Dot Lights to it the same way we did for the left set of jets (Step 8–9)
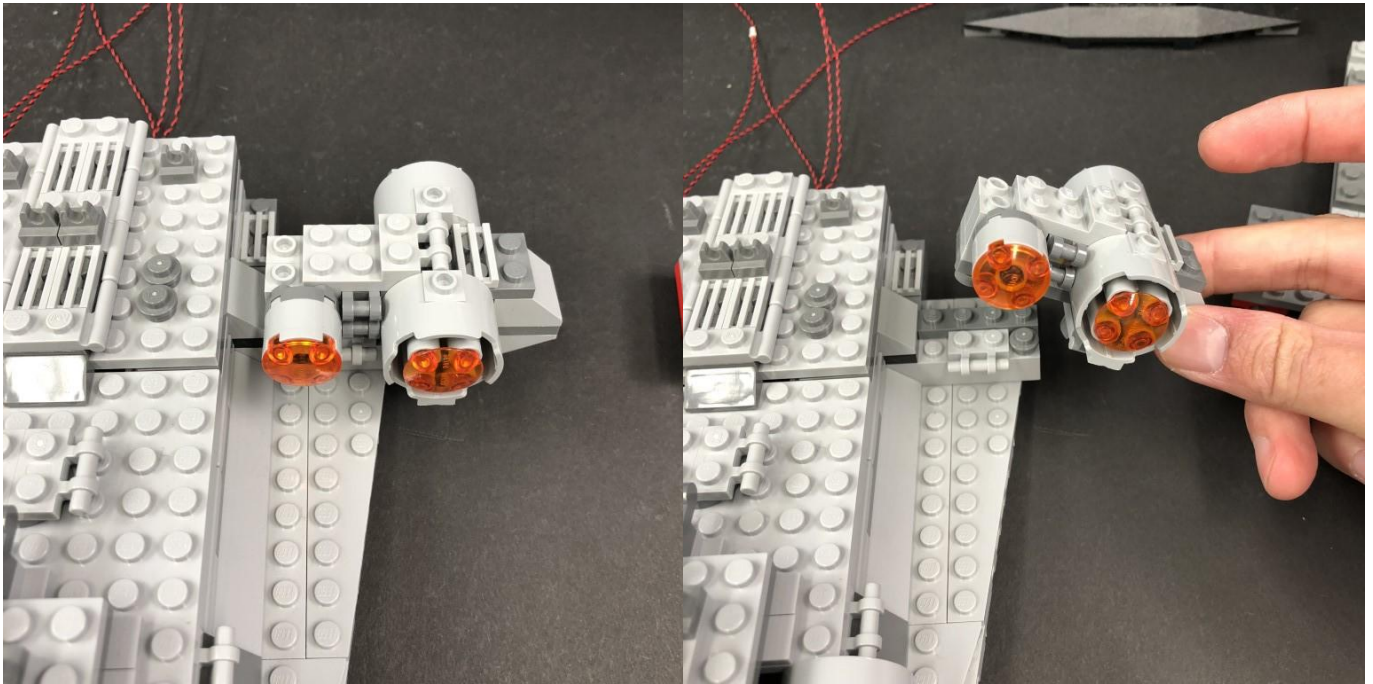
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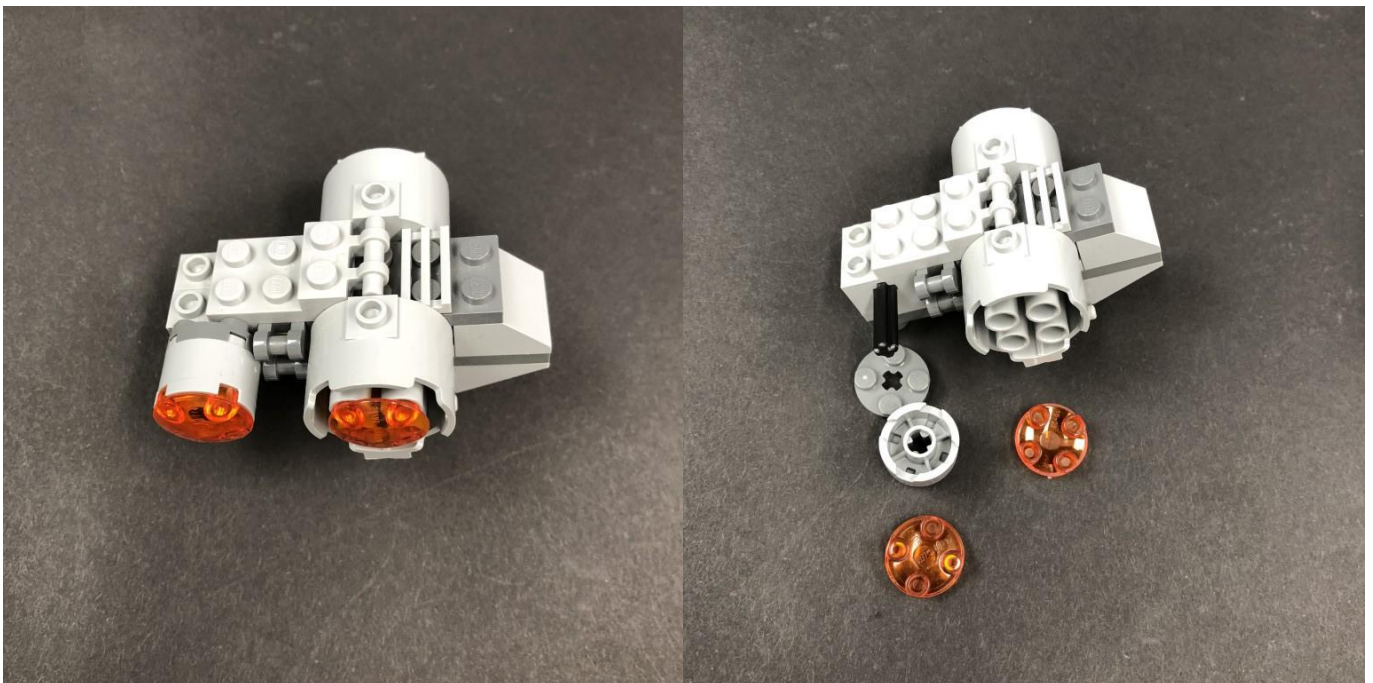
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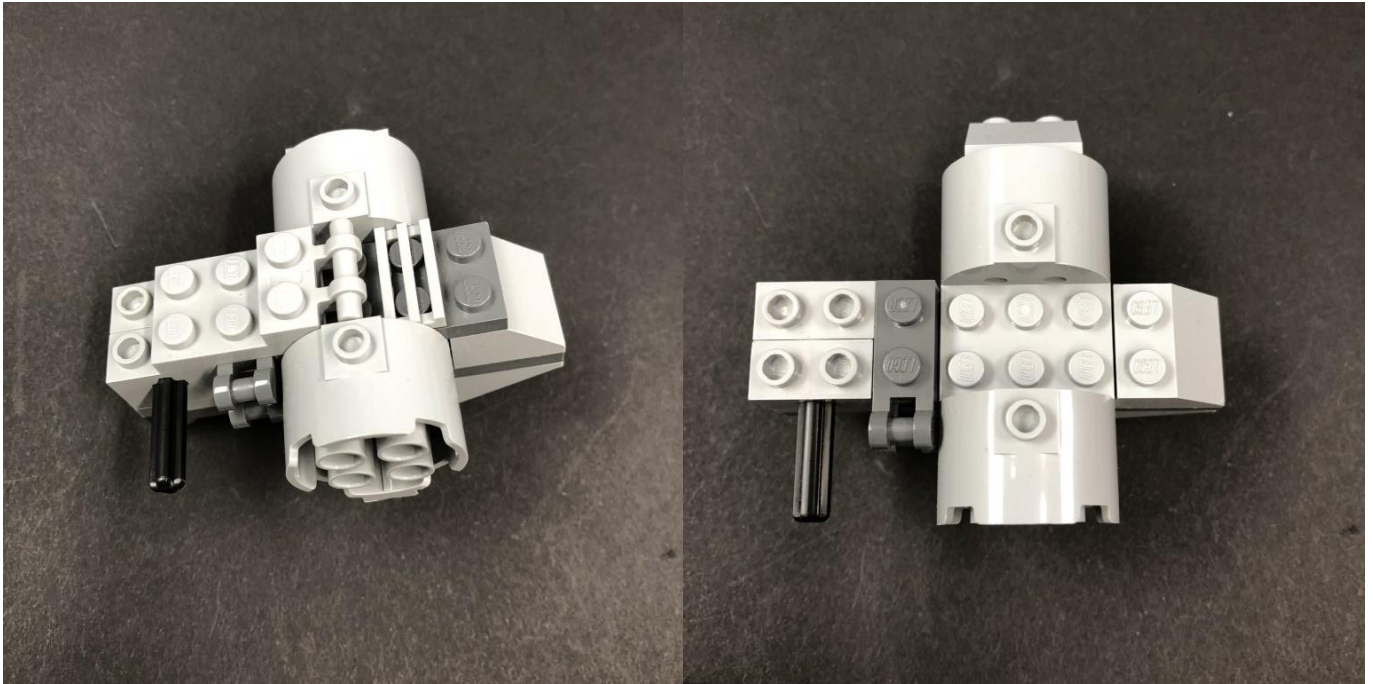
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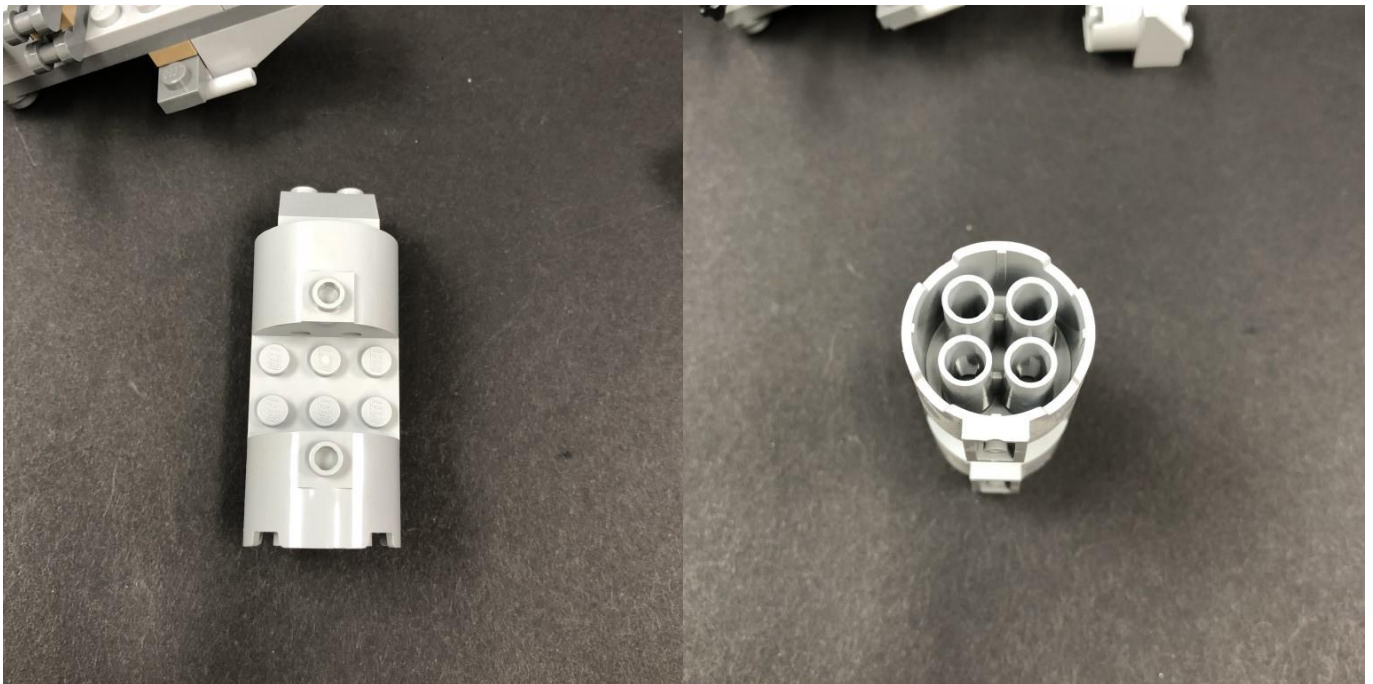
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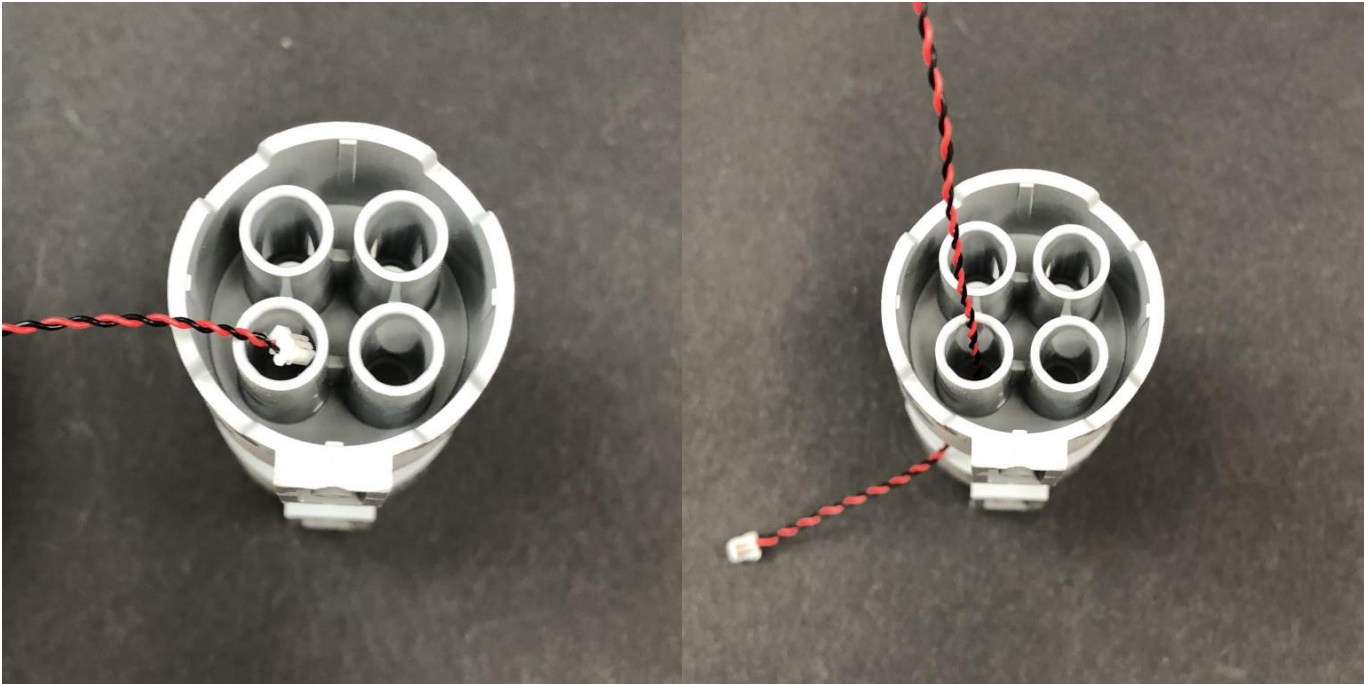
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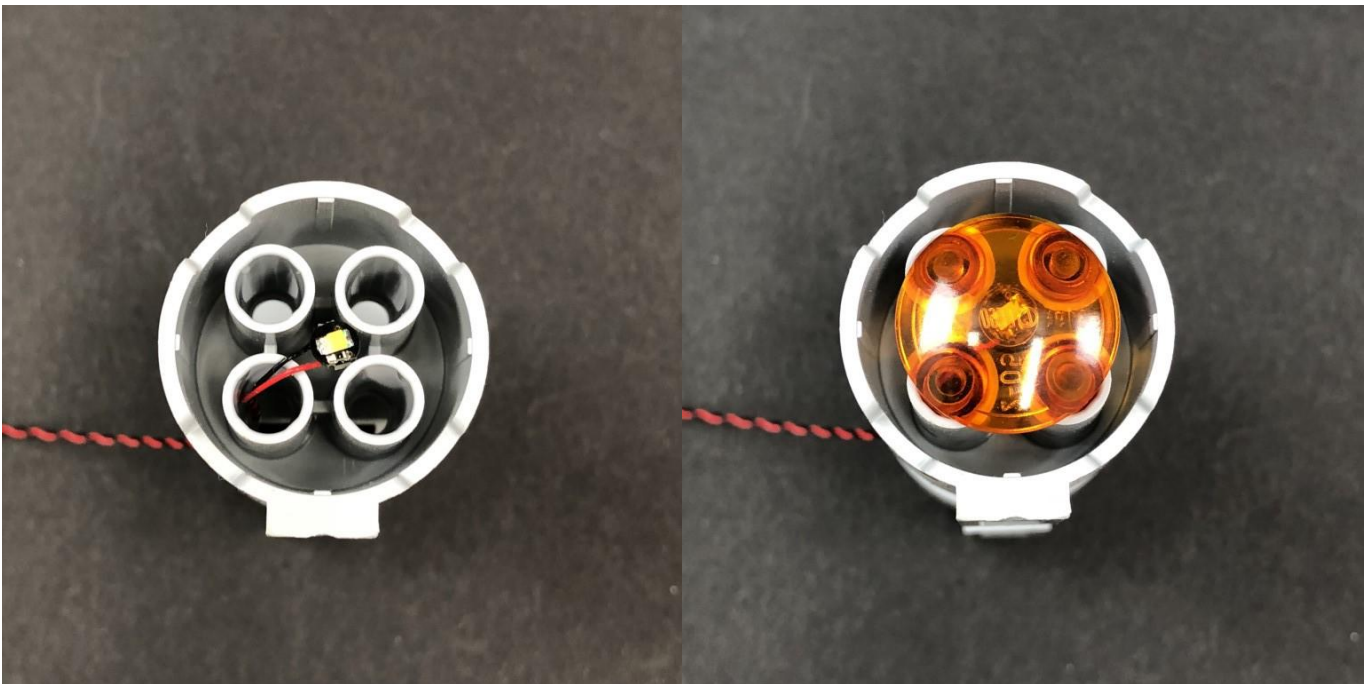
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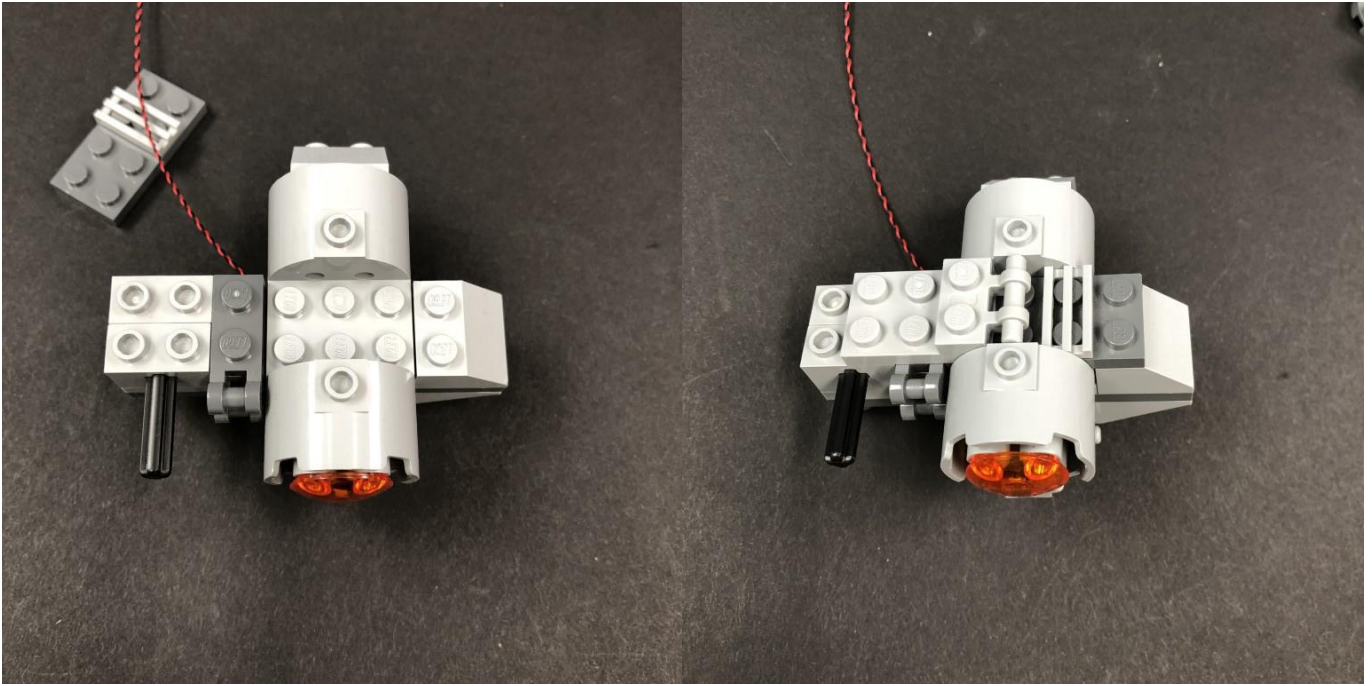
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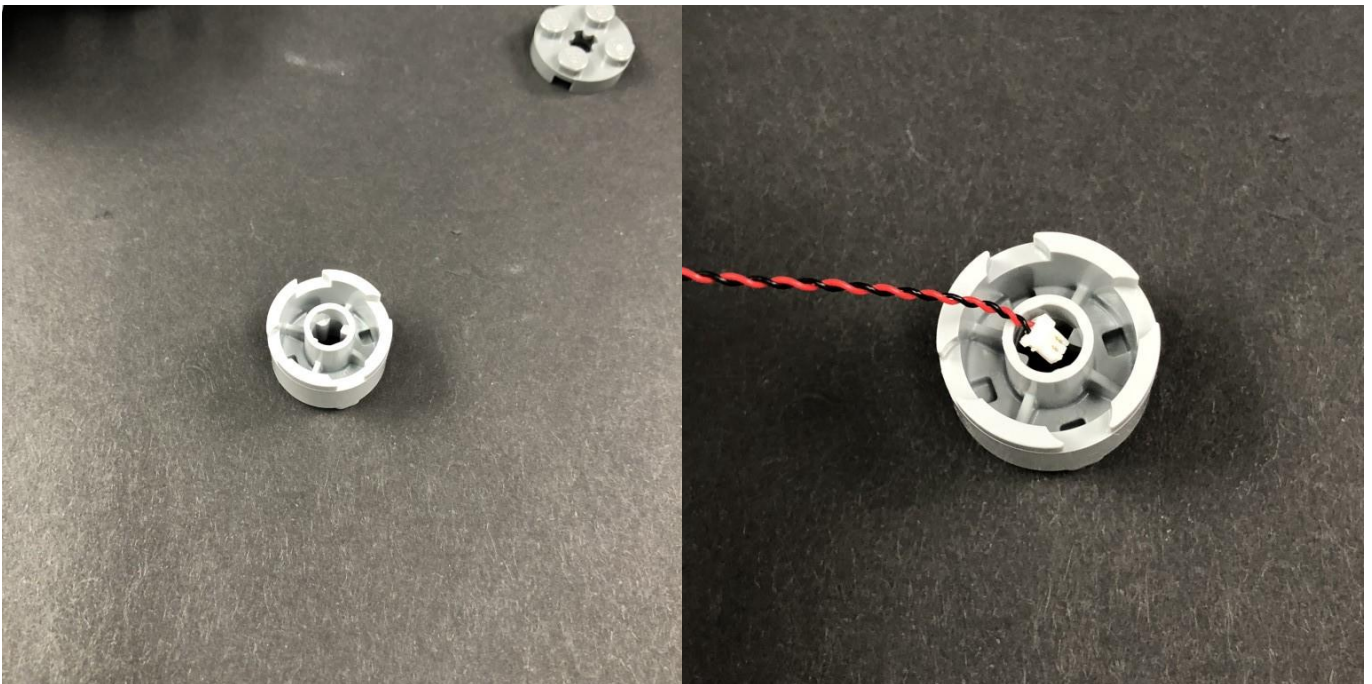
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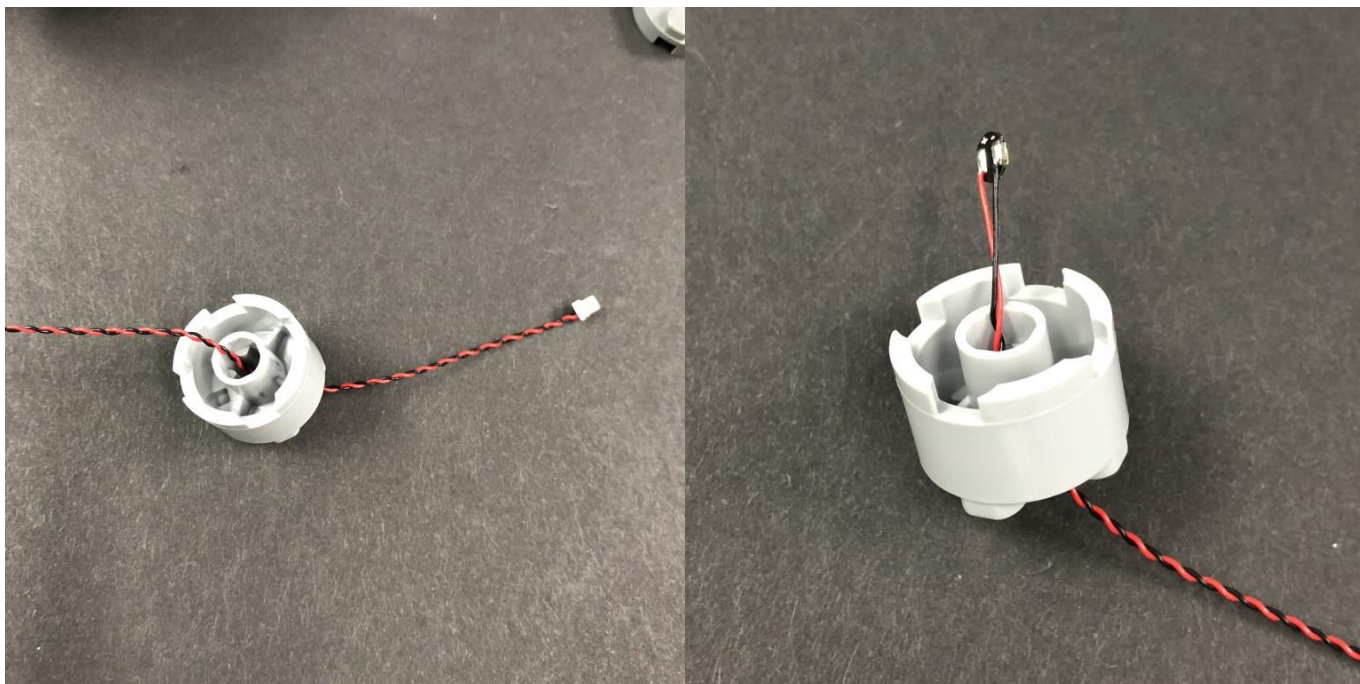
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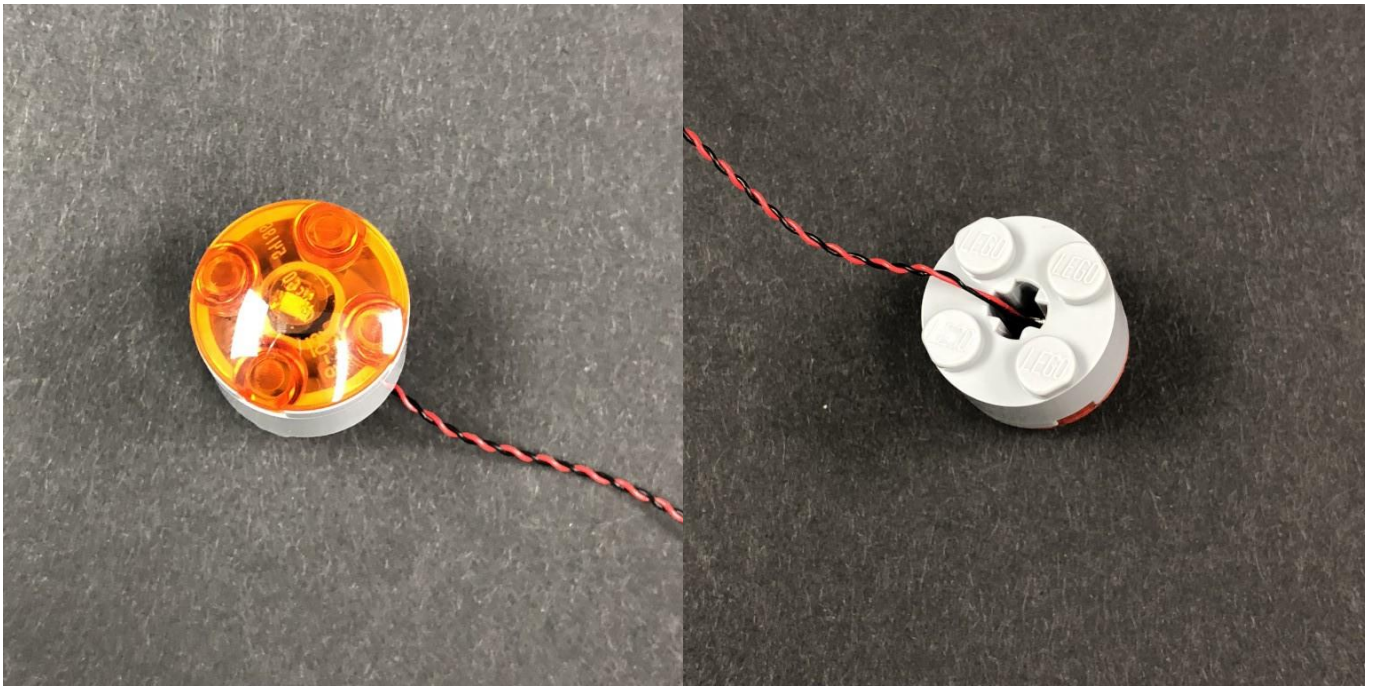
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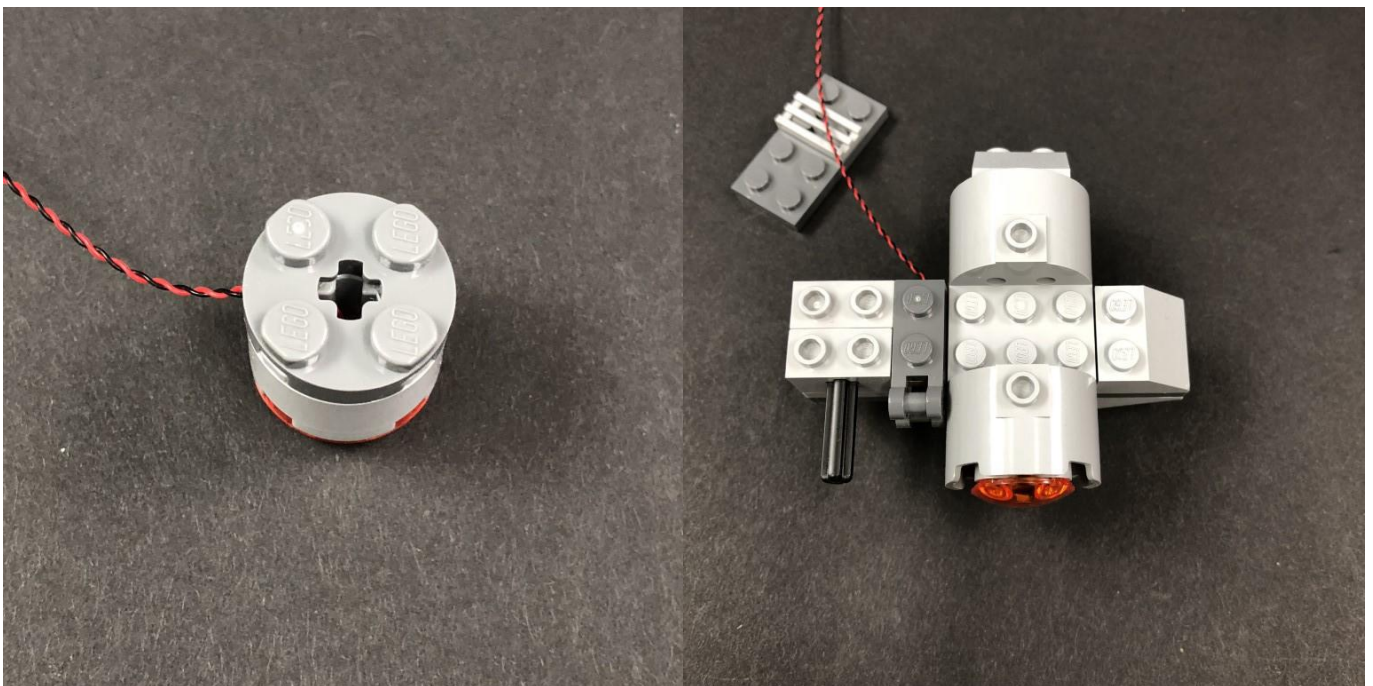
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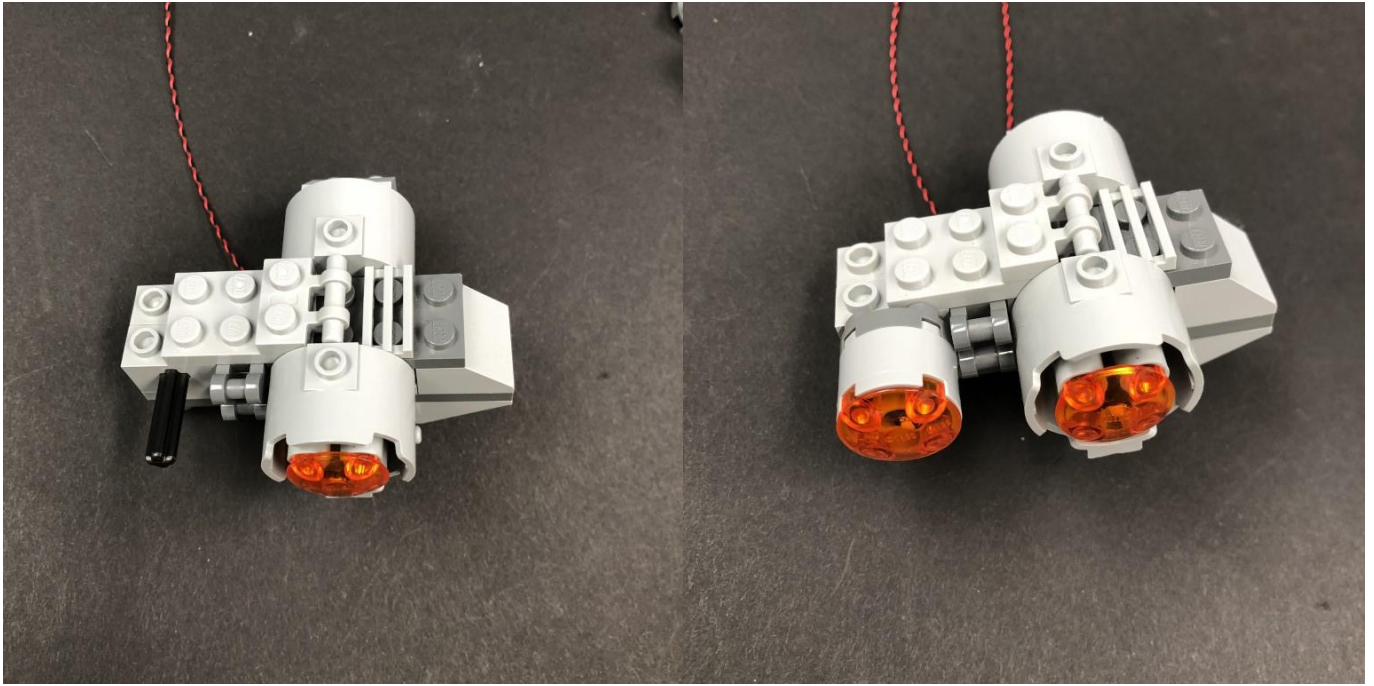
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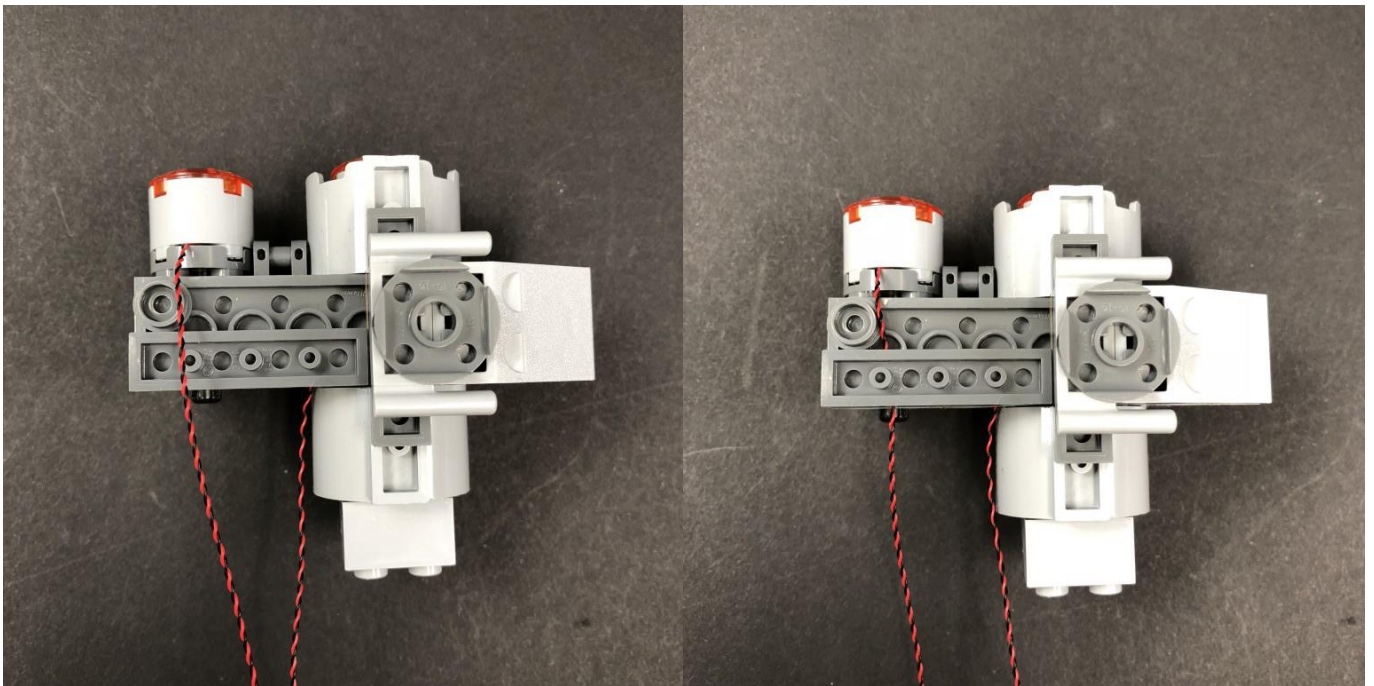
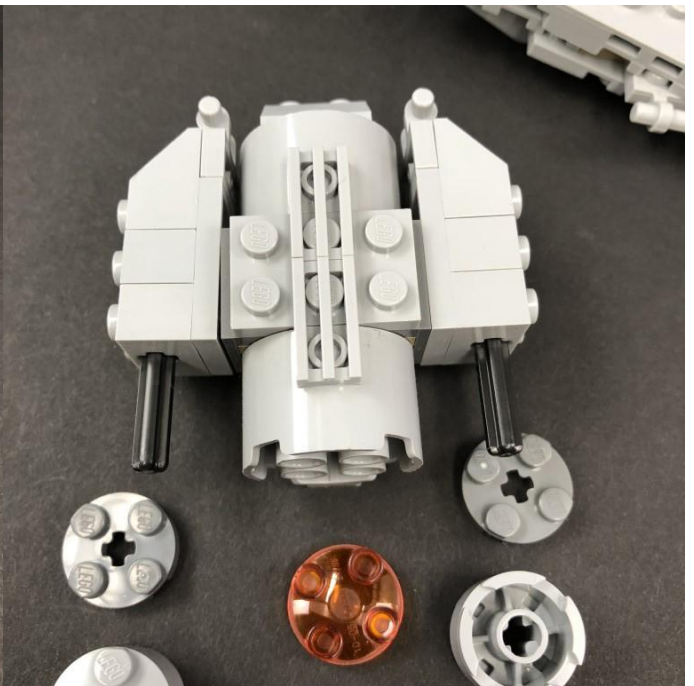**65.Reconnect the right jets back to the main centre jet section.**
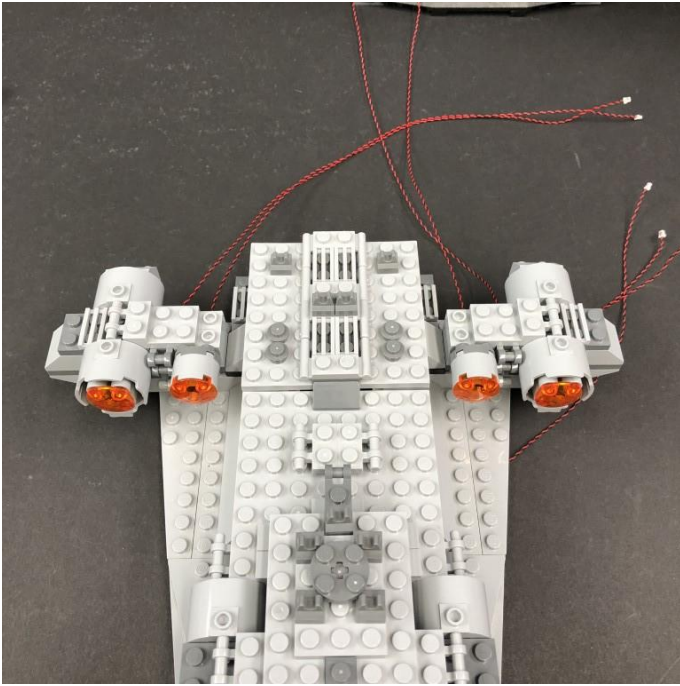
66. We will now move onto installing lights to the left jet section. Take this section and disconnect and disassemble the jets as per below images.
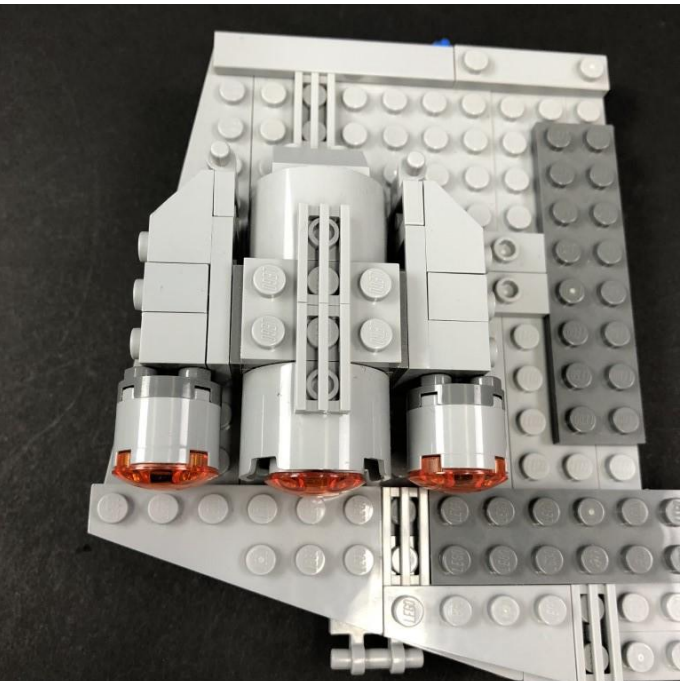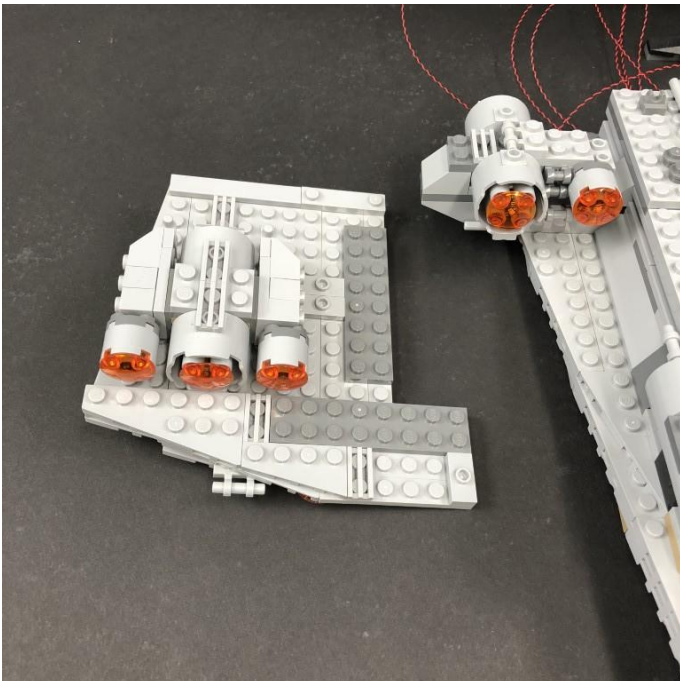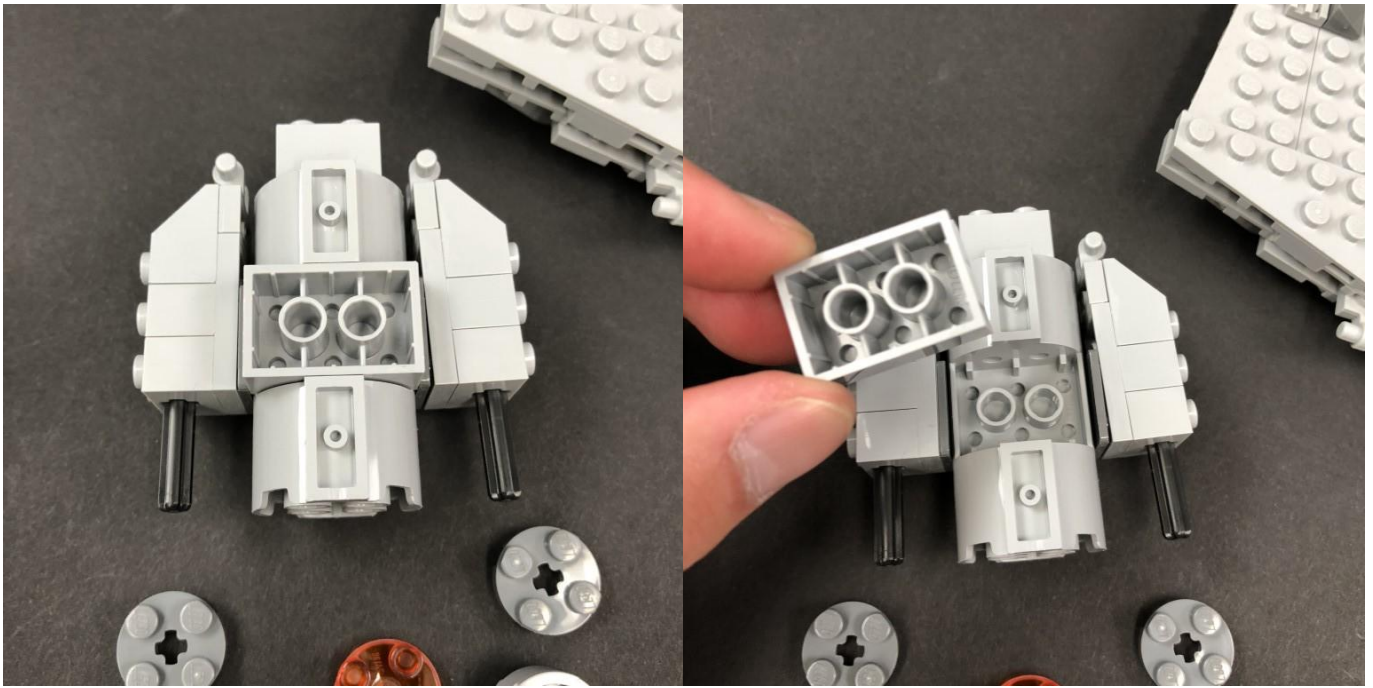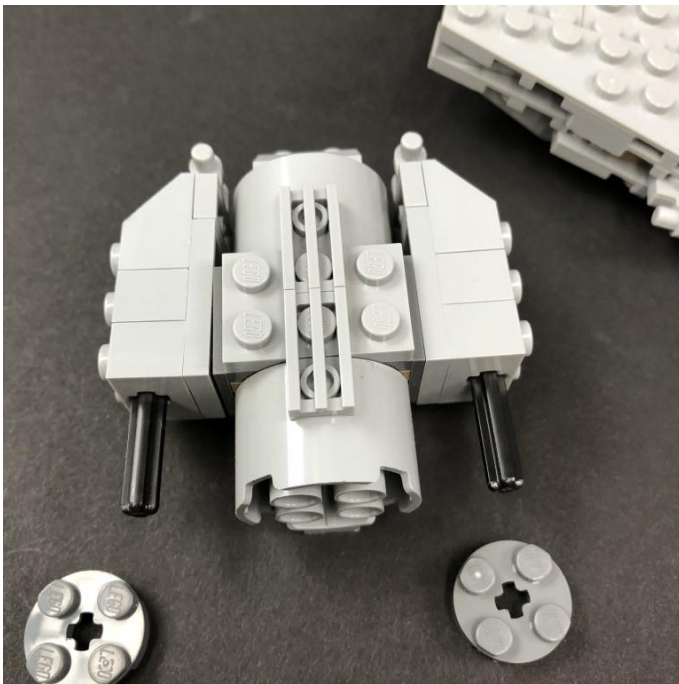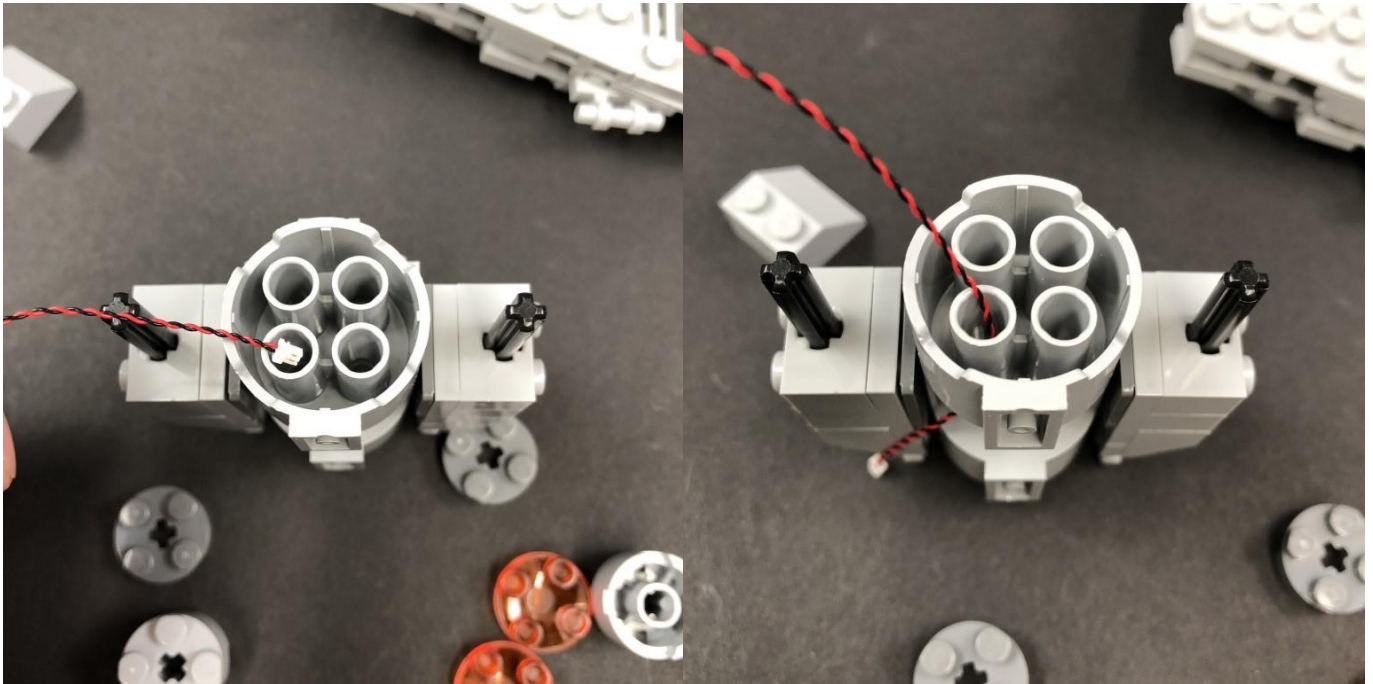
67
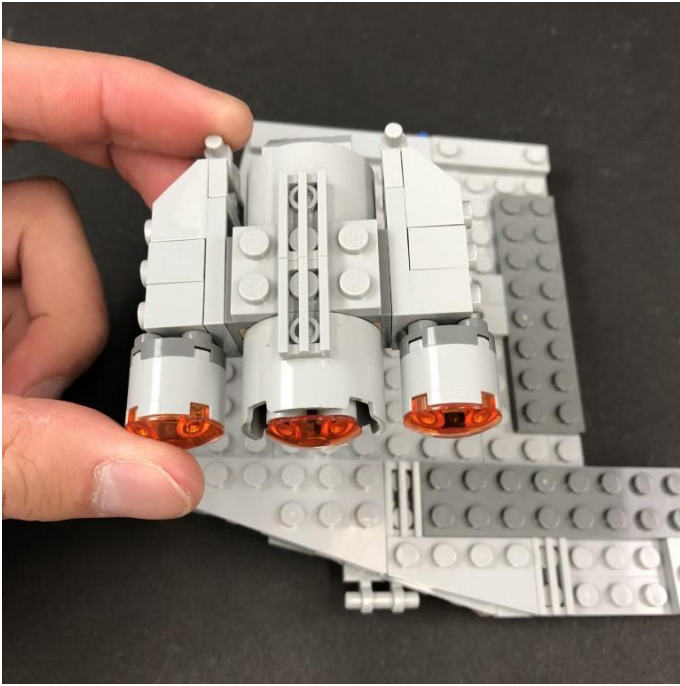
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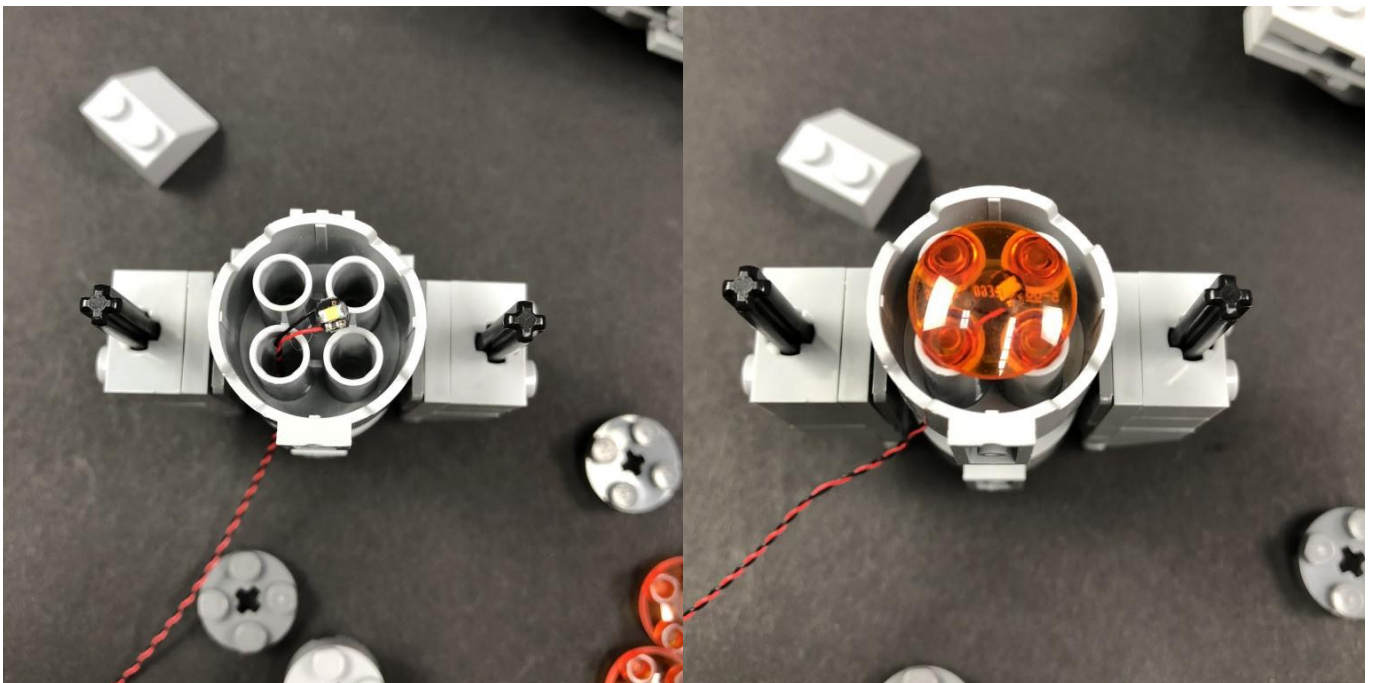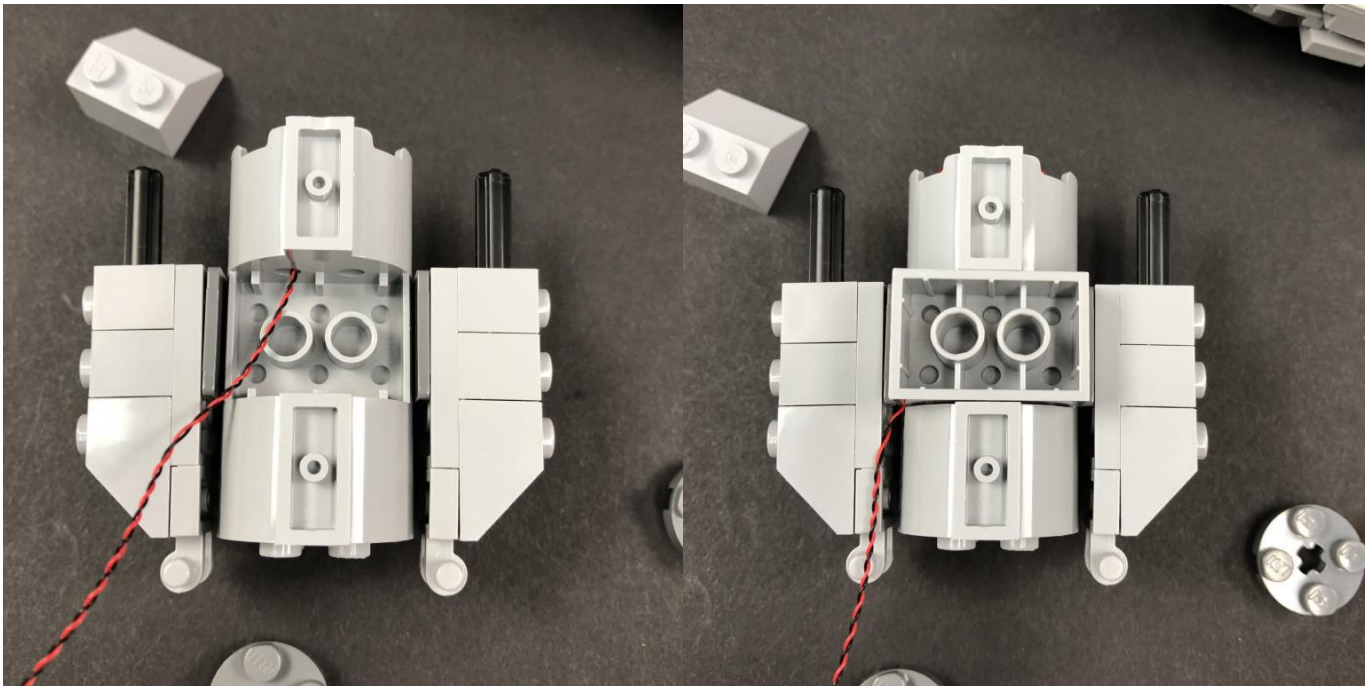## 69.Turn this section over and remove the 2x3 brick from underneath.

70

71.Install a White 30cm Dot Light by threading it through the bottom hole of the main section and securing it by reconnecting the trans orange piece over the top as per below:
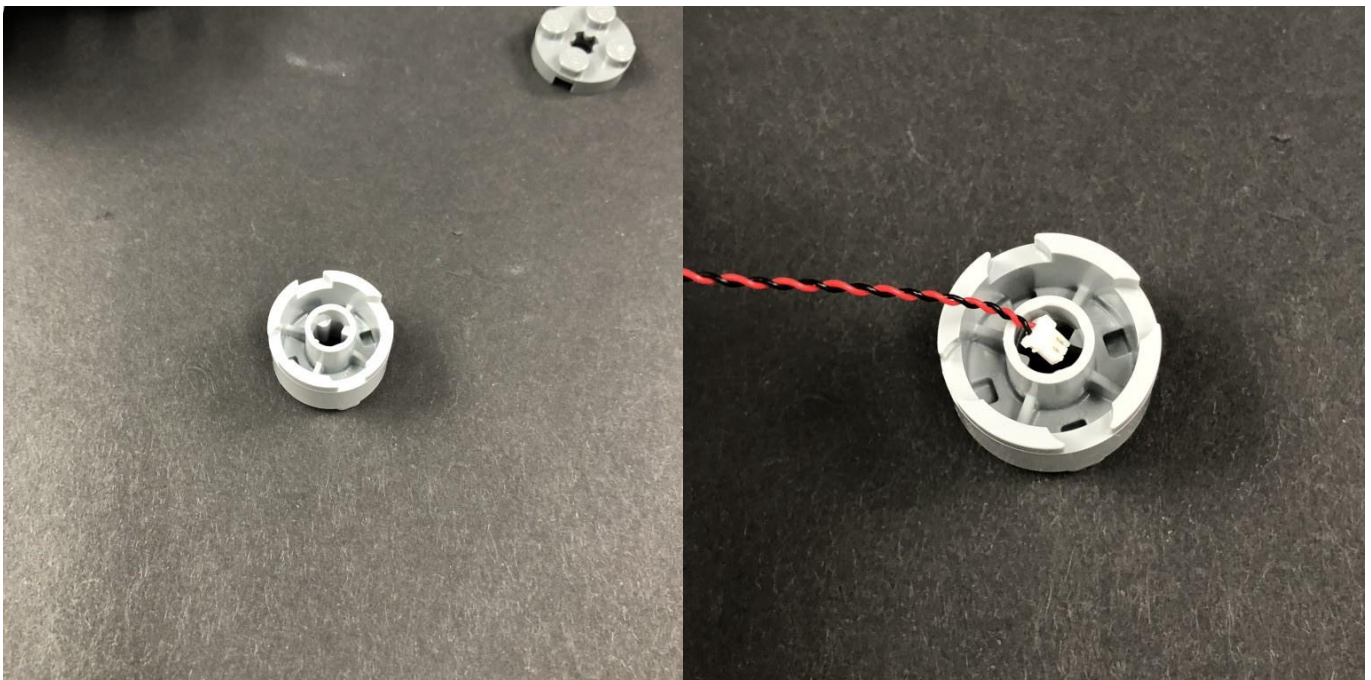

72

73.Turn this section over and reconnect the 2x3 brick underneath ensuring the cable is placed in between studs


74.Install another 2x White 30cm Dot Lights to the remaining jets in this section following the same method used for the jets in step 9.
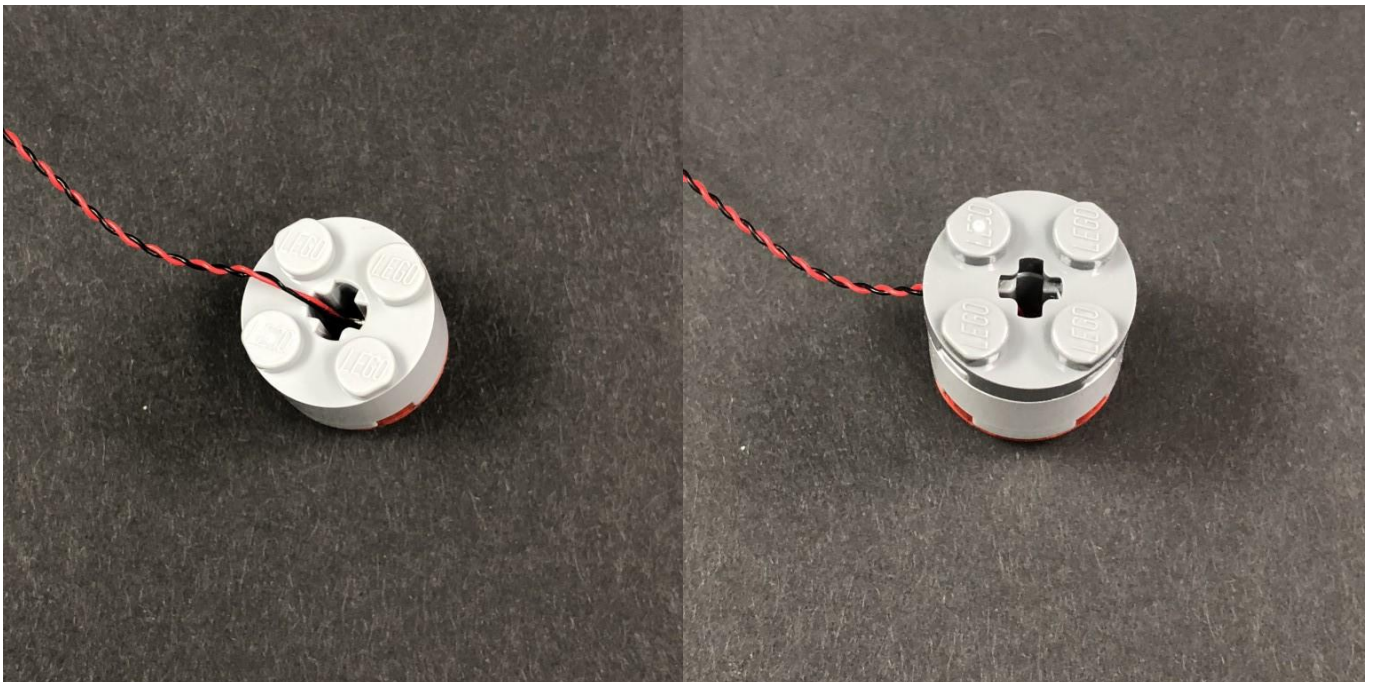
76.Important Note: Allow some excess cable inside the hole of the round brick for the technic bar to push through the back. Do not pull the cable all the way through to the end otherwise the cable may break when inserting back onto the technic bar.
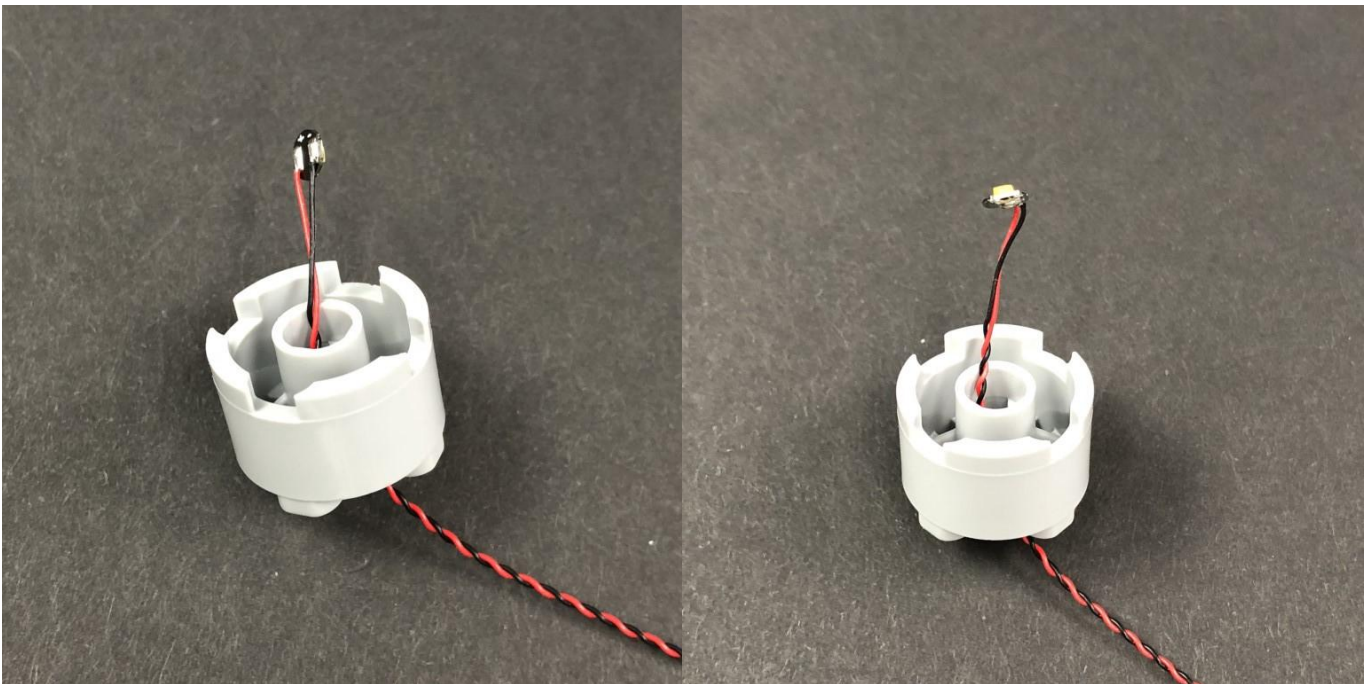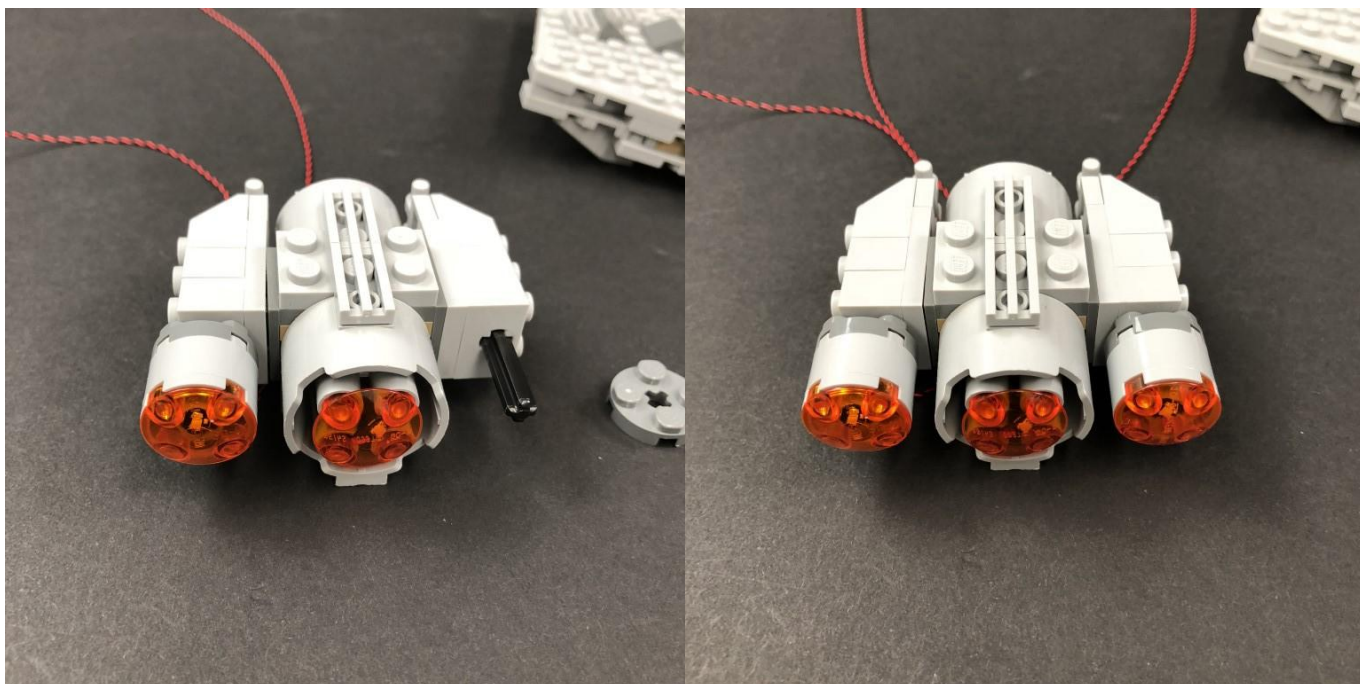
78.Turn the piece over and reconnect the dark grey round plate ensuring the cable is laid in between the studs.

79.Reconnect each jet section by pushing each one back onto the technic bar behind. Do this very carefully to ensure the cable does not break.
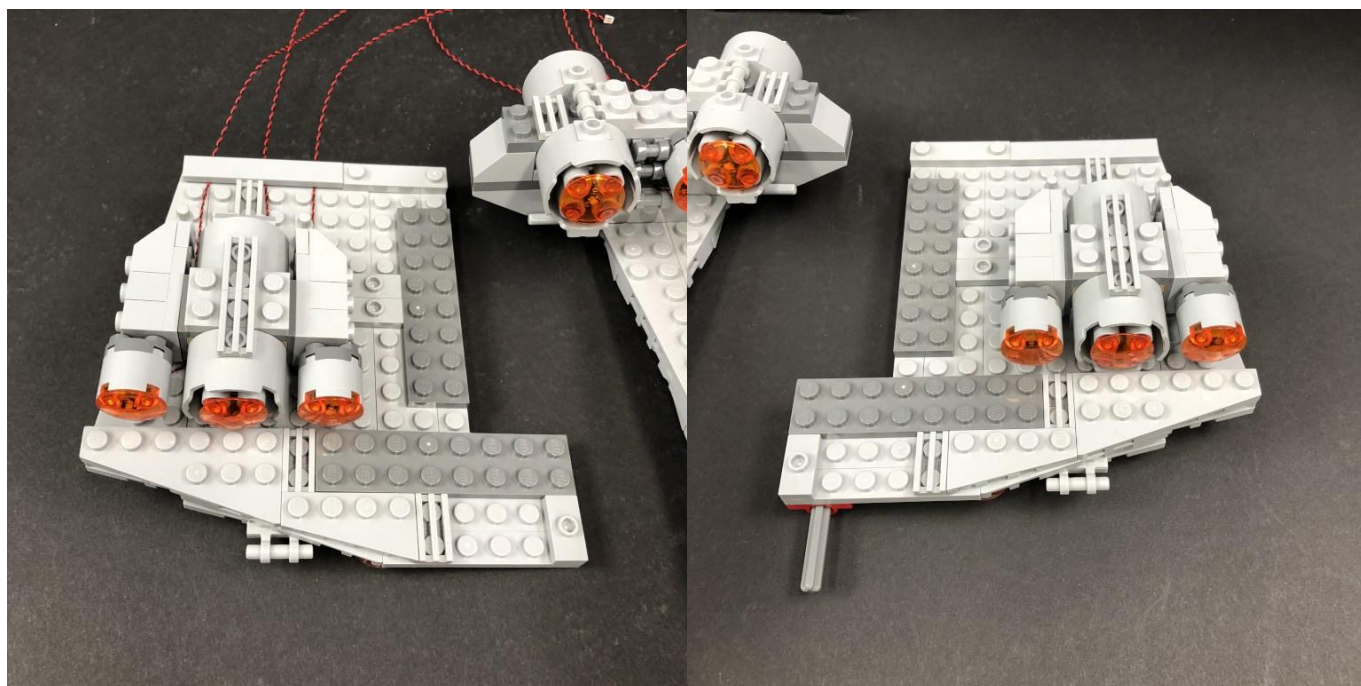

80.Reconnect the jets back to the left section and then turn it over and lay the three cables underneath the 1x6 tile along the back. Ensure the cables are laid in between studs.
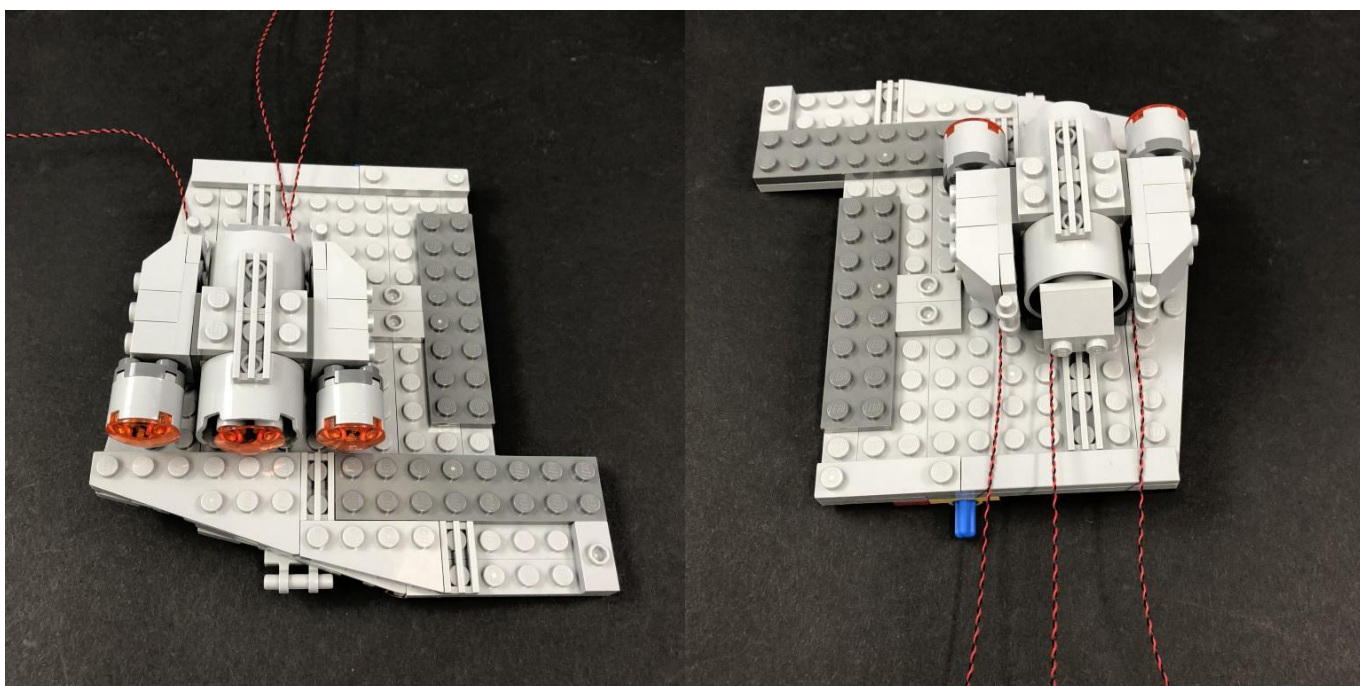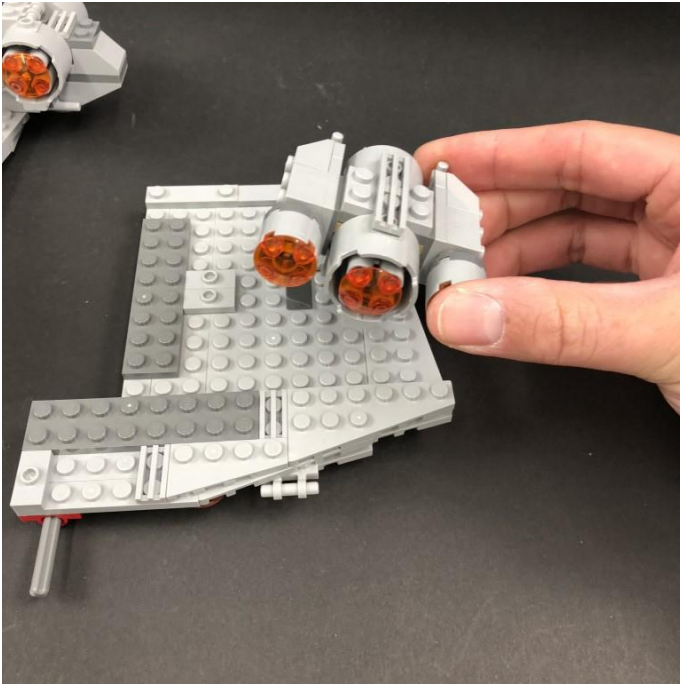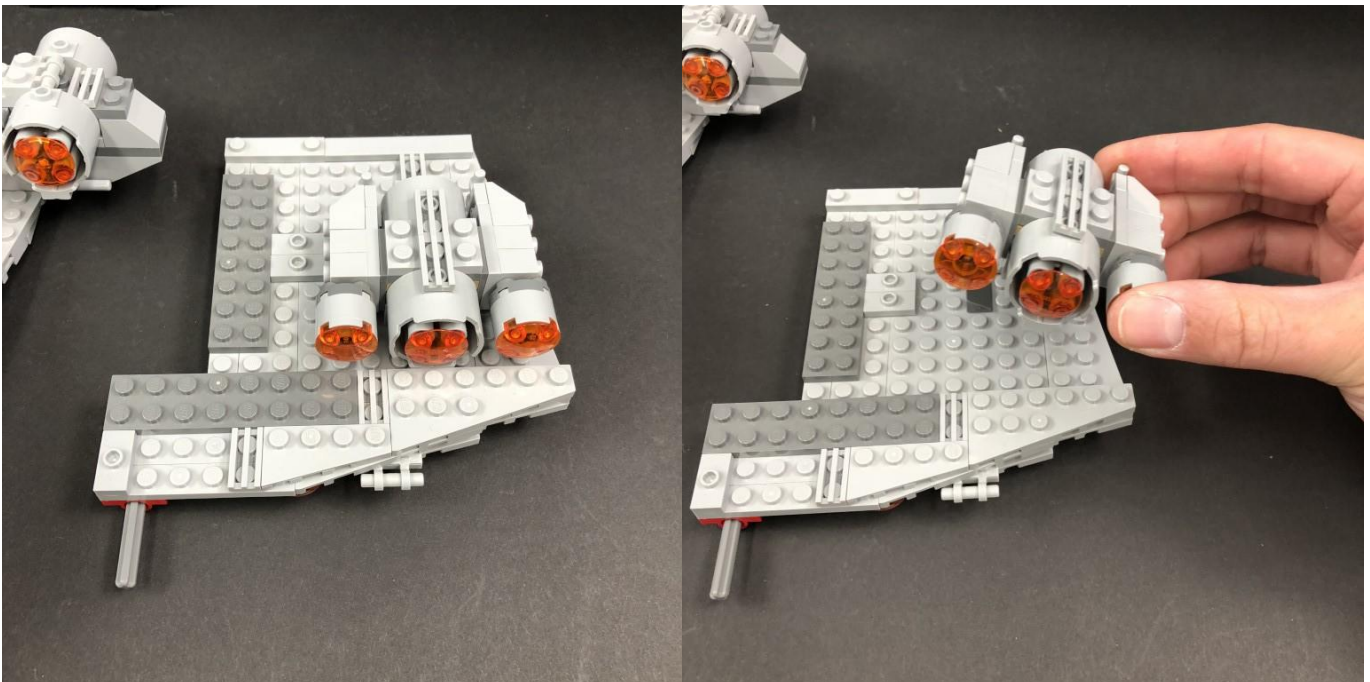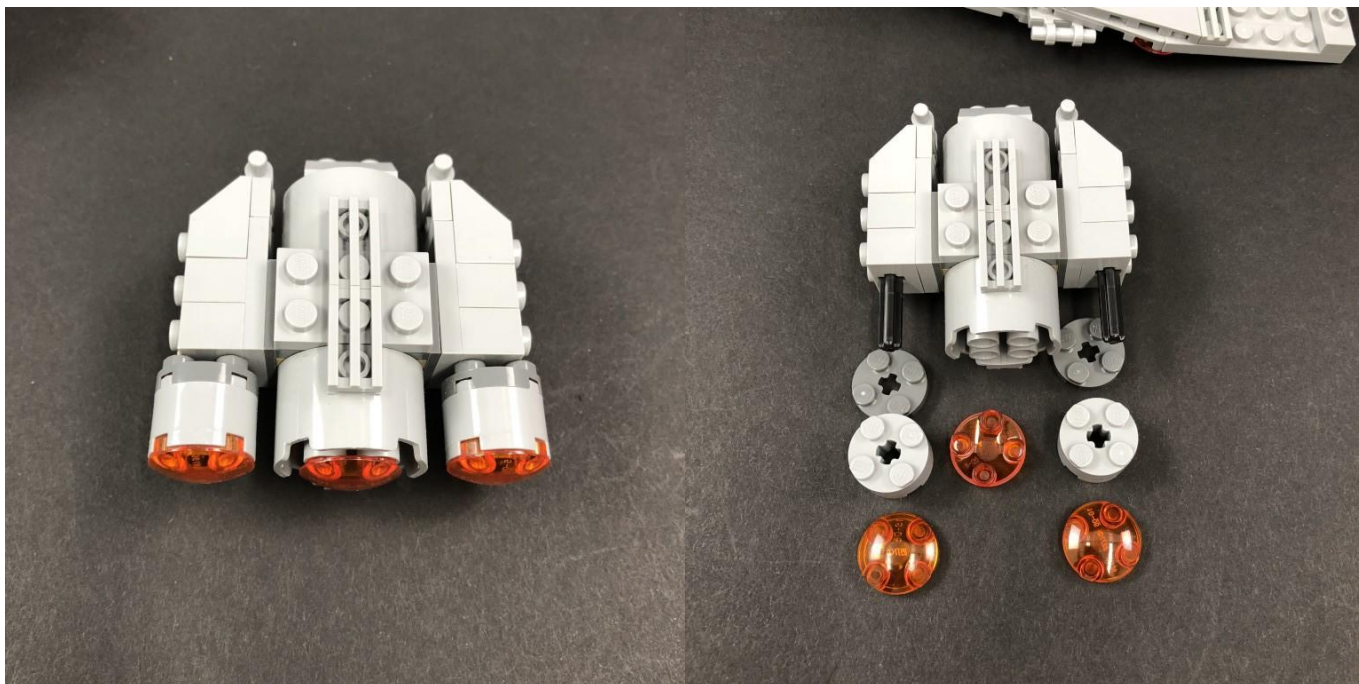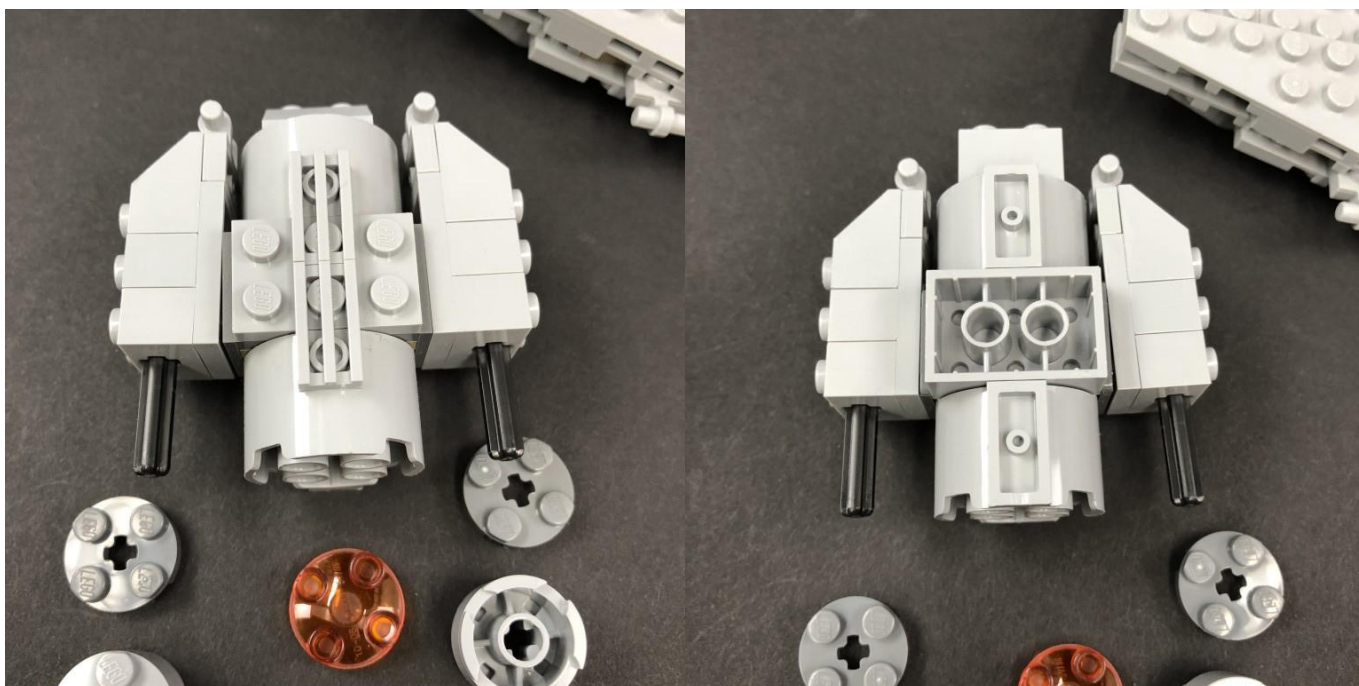
81
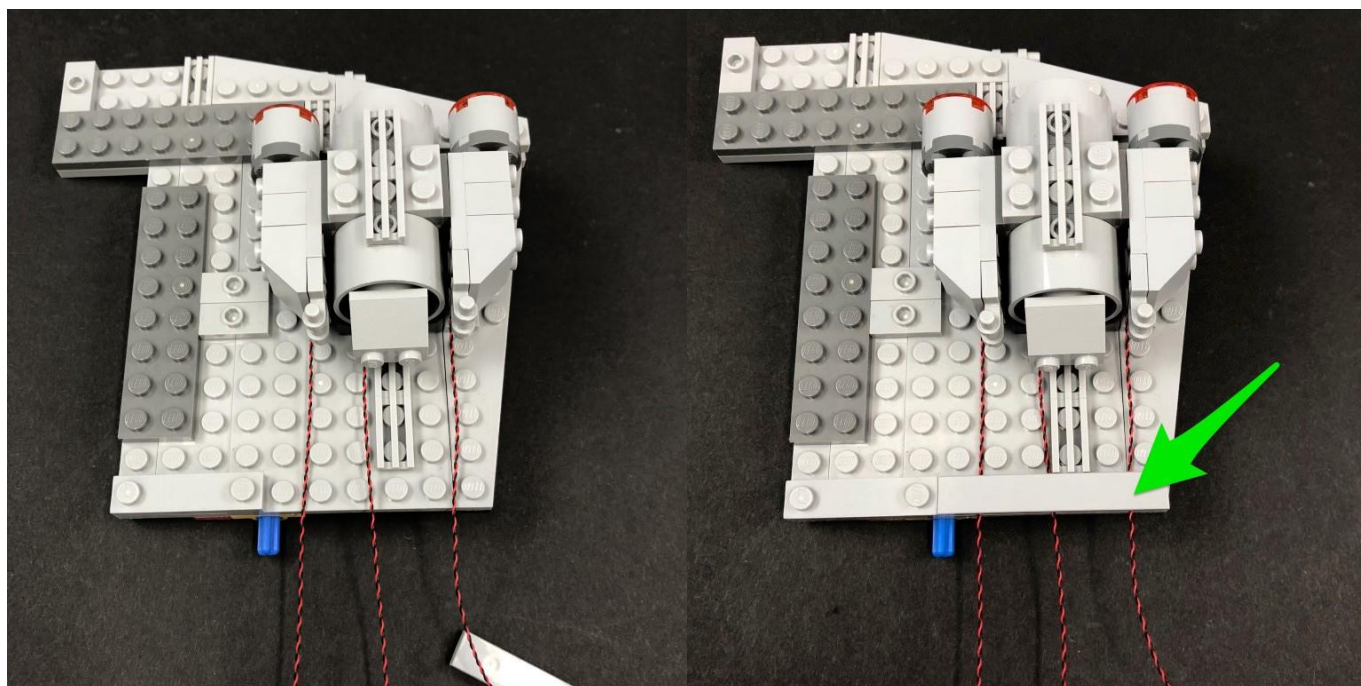
82

84.Repeat previous steps 11–14 to install another 3x White 30cm Dot Lights to the jets on the right section.

85

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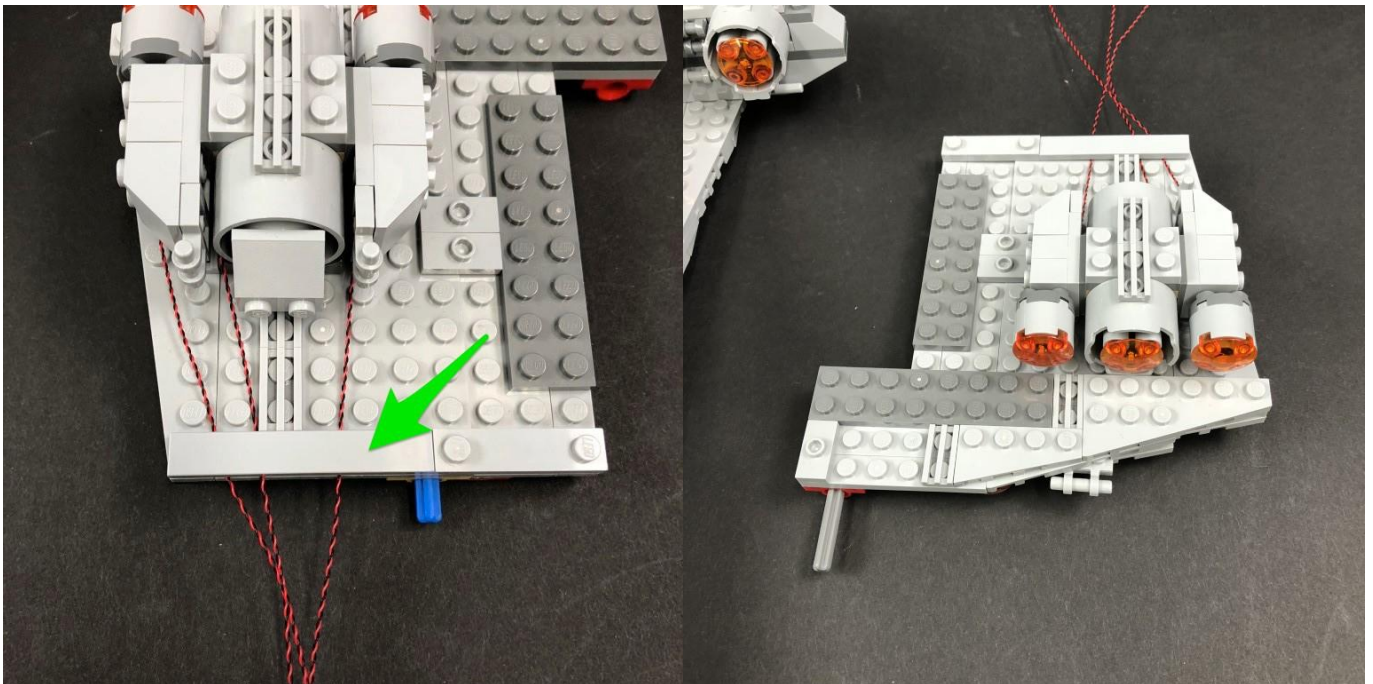**87**
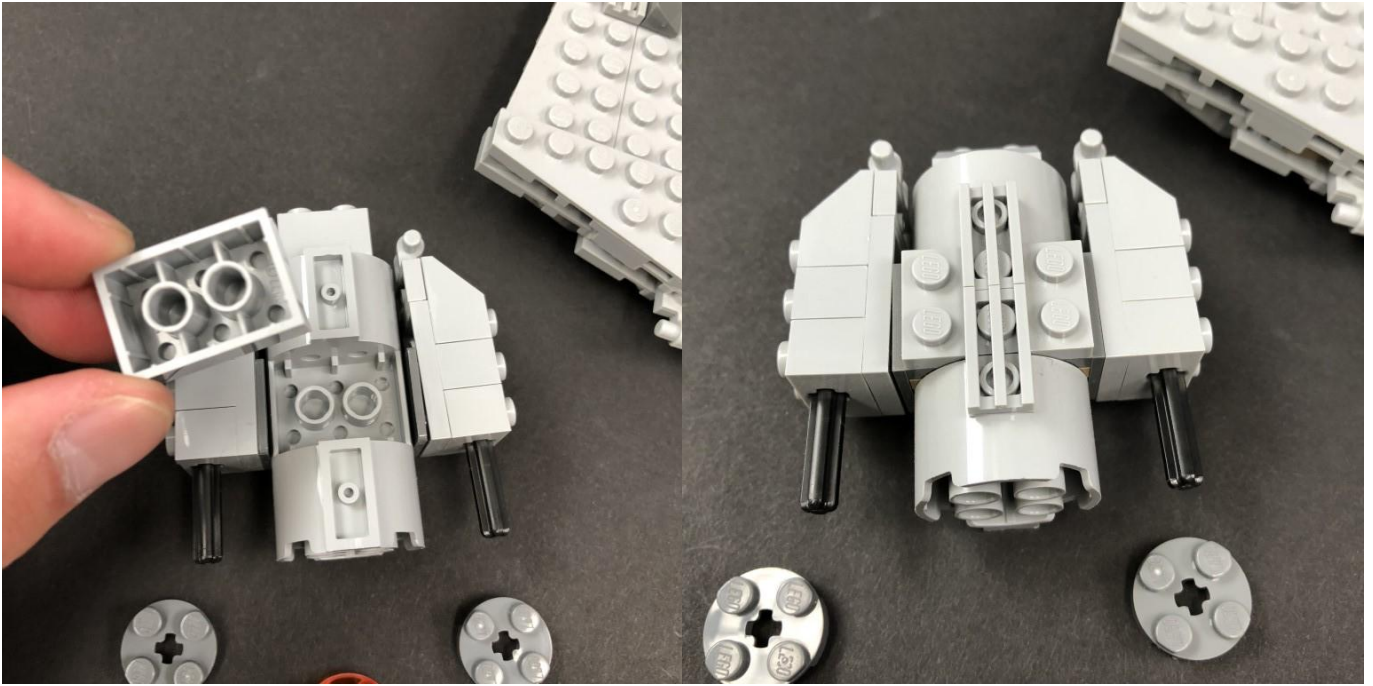
88
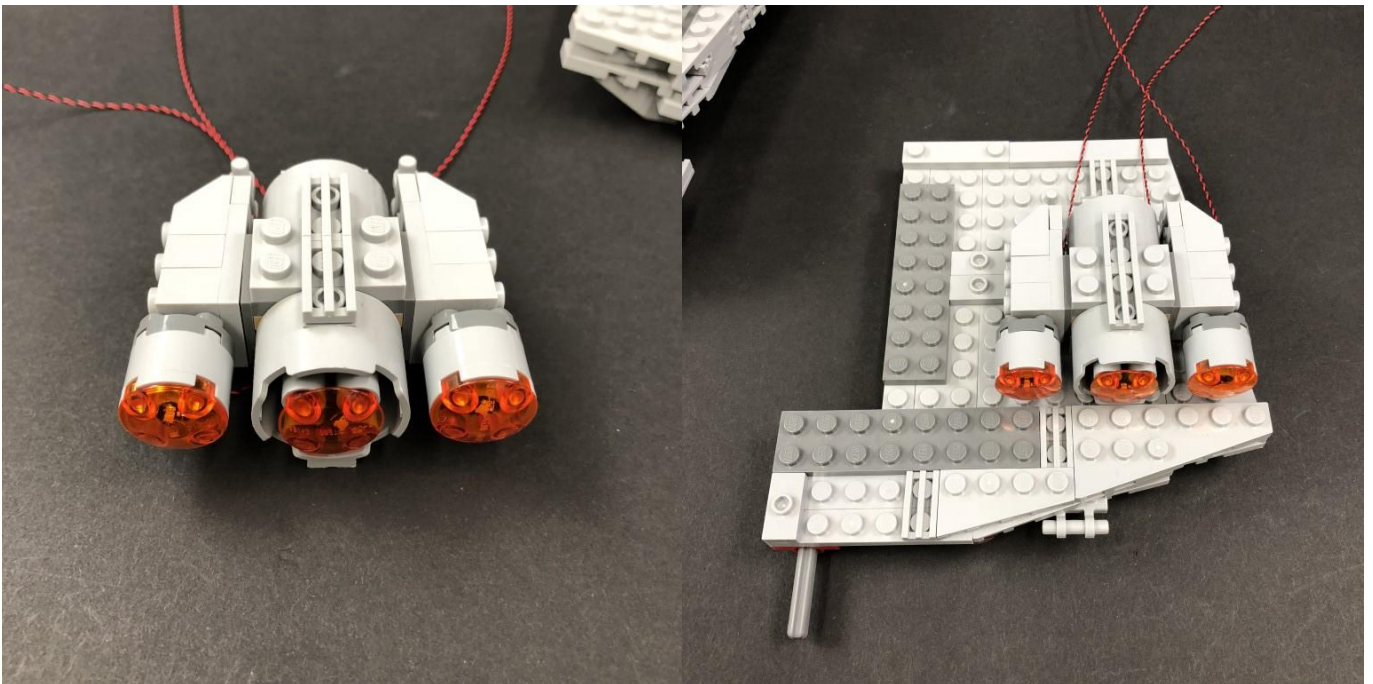
89
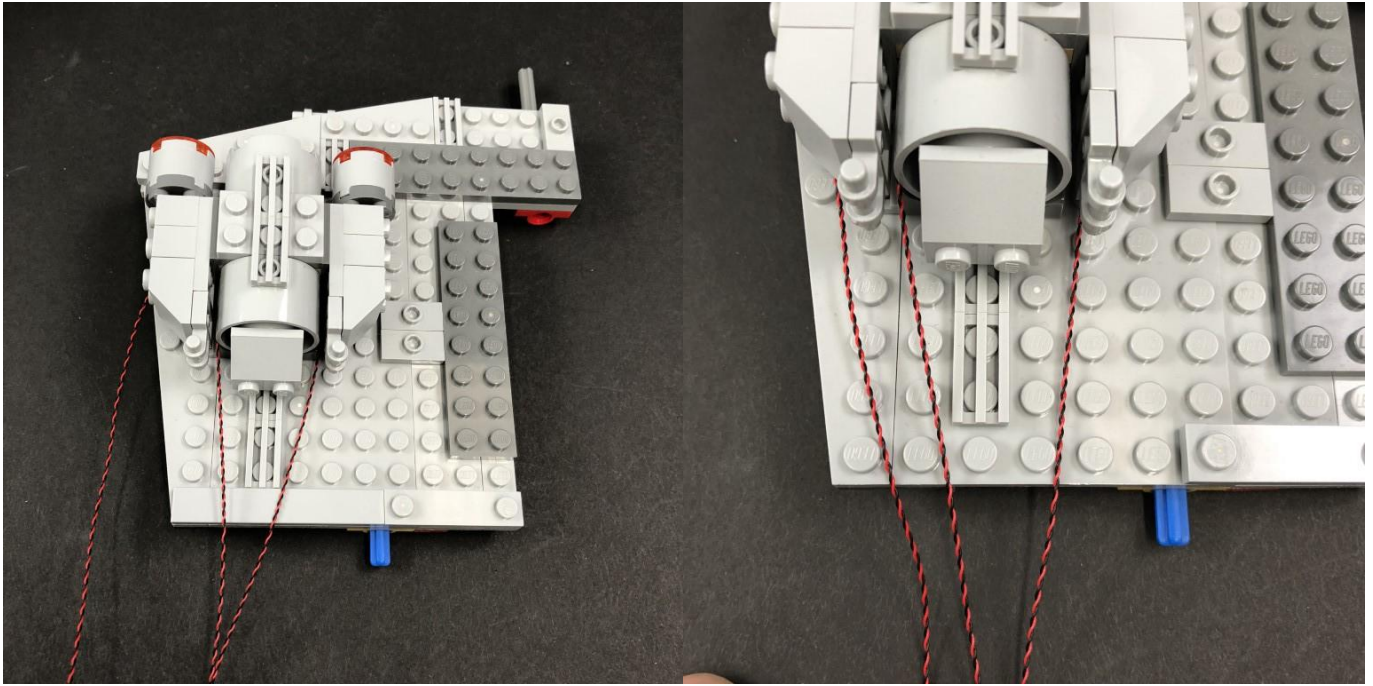
90

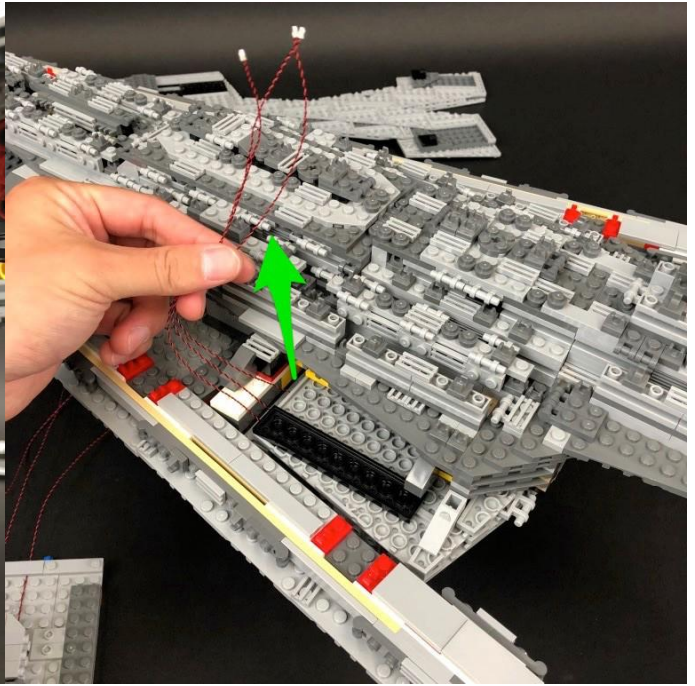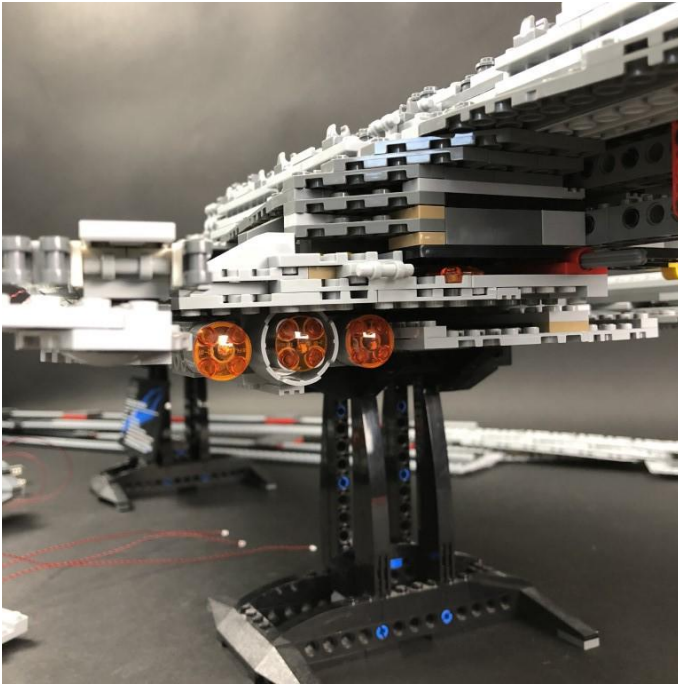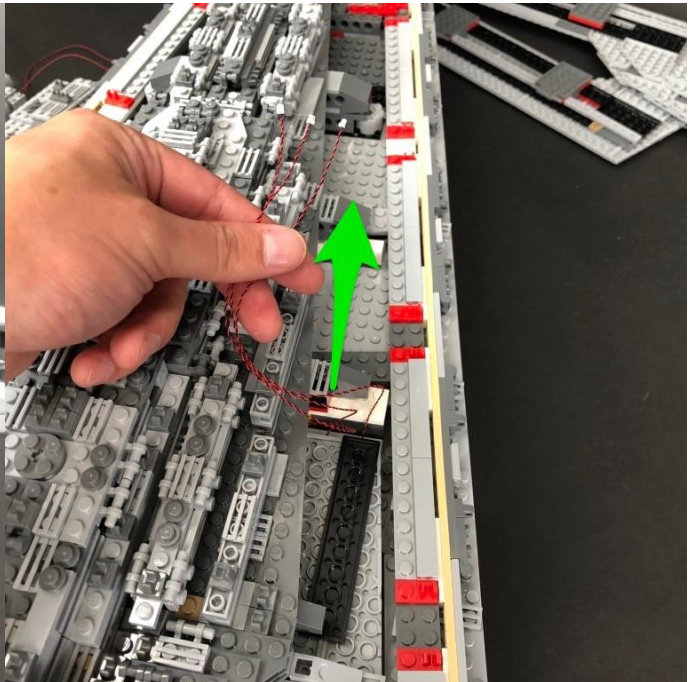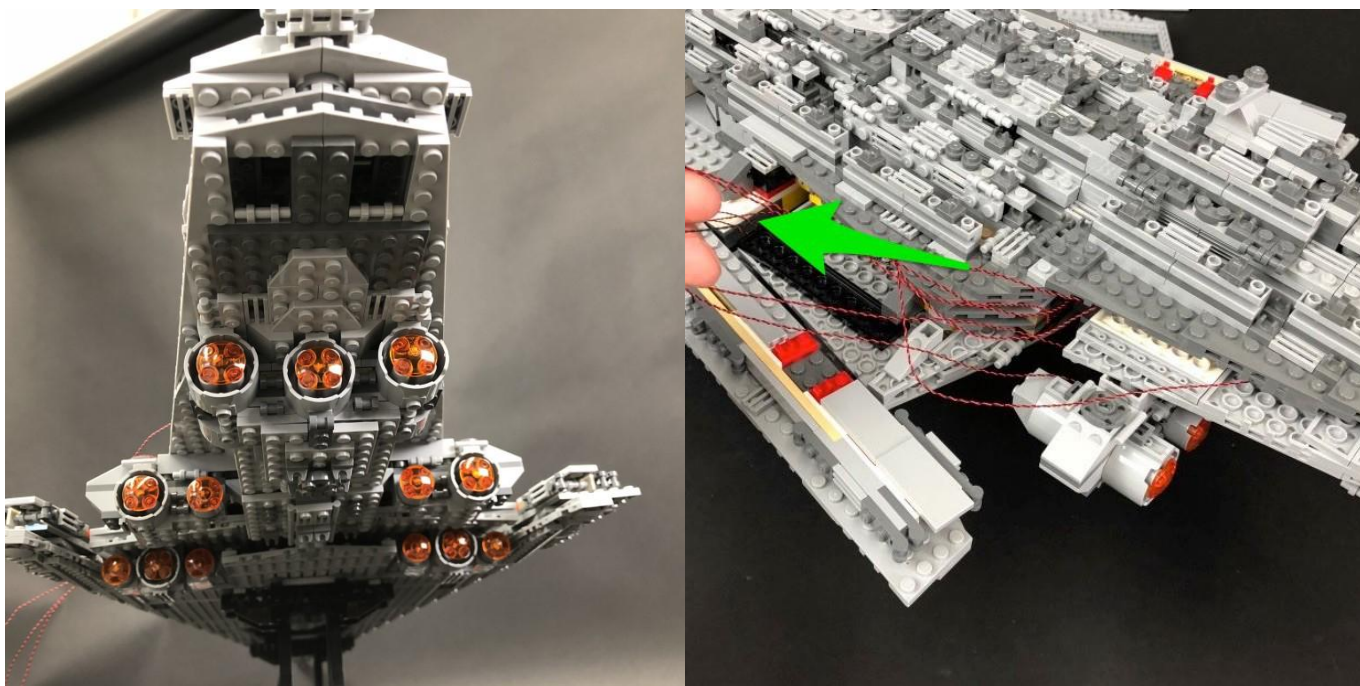**91.Reconnect the left and right jet sections and then pull out the three cables from each side at the front as per below.**
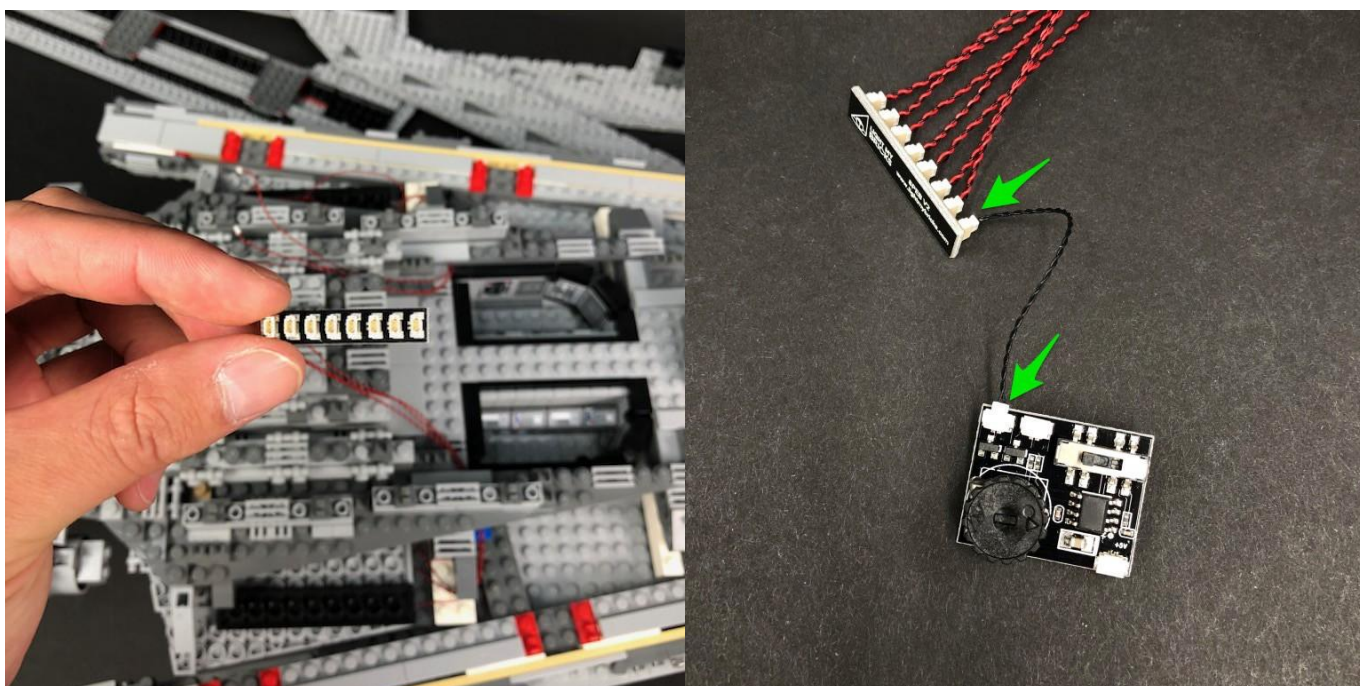

92

93.Reconnect the main centre jet section and bring the cables out to the left side.


94.Take the seven cables from the centre jet section and connect them to an 8-Port Expansion Board. Take a 5cm Connecting Cable and connect one end to the remaining port on the expansion board and the other end to one of the OUT ports on the Multi Effects Board (side with 2 ports)
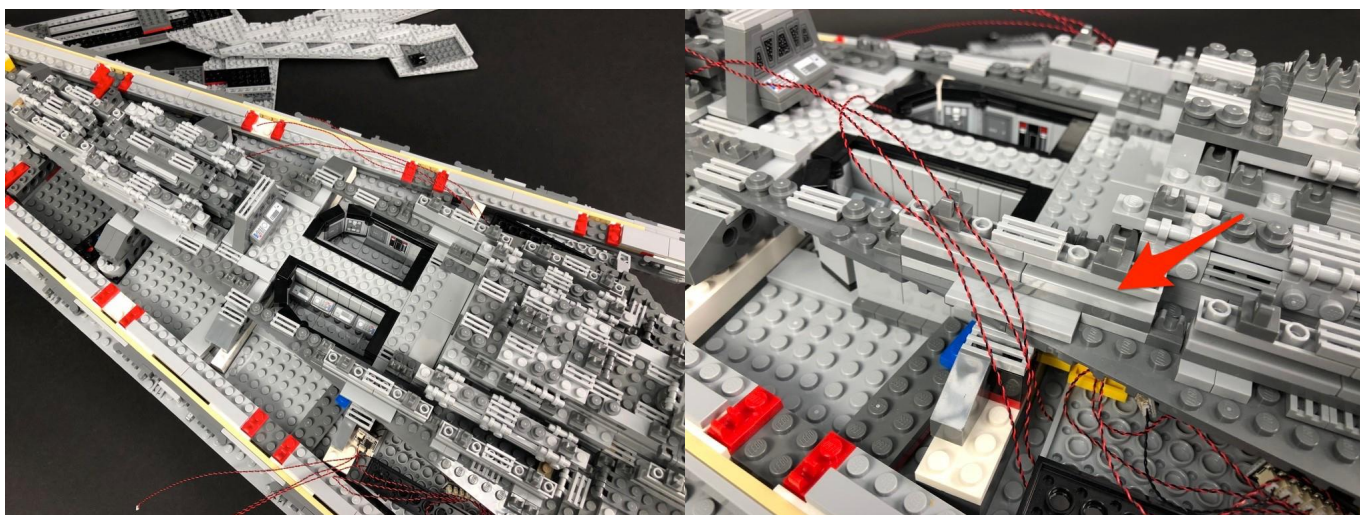
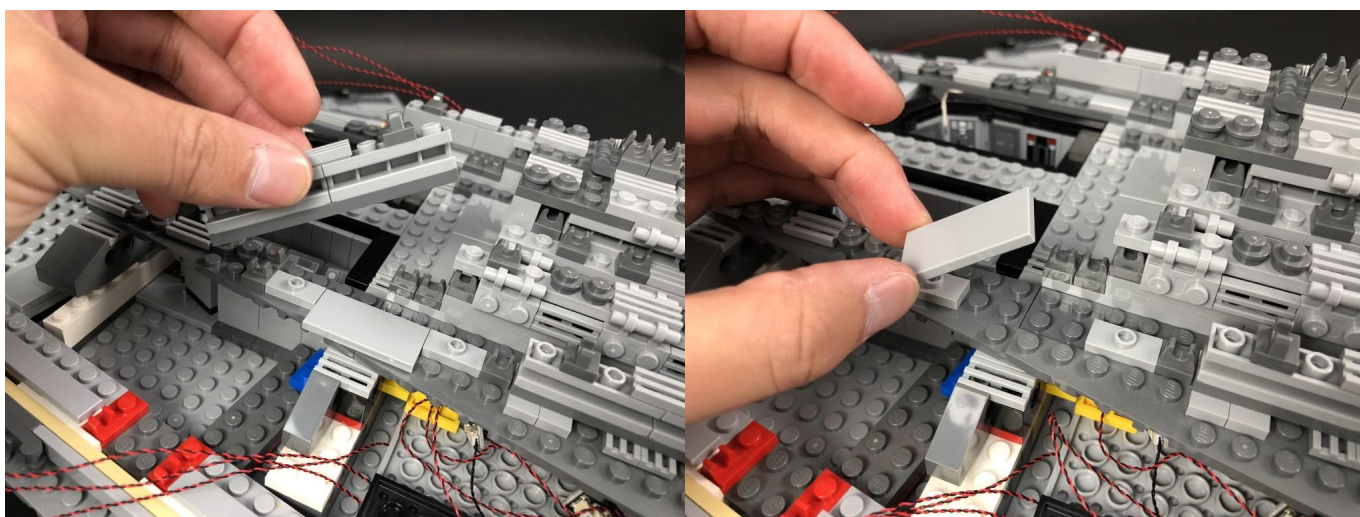**95.Tuck the expansion board and seven cables neatly inside the left side of the ship as per below.**
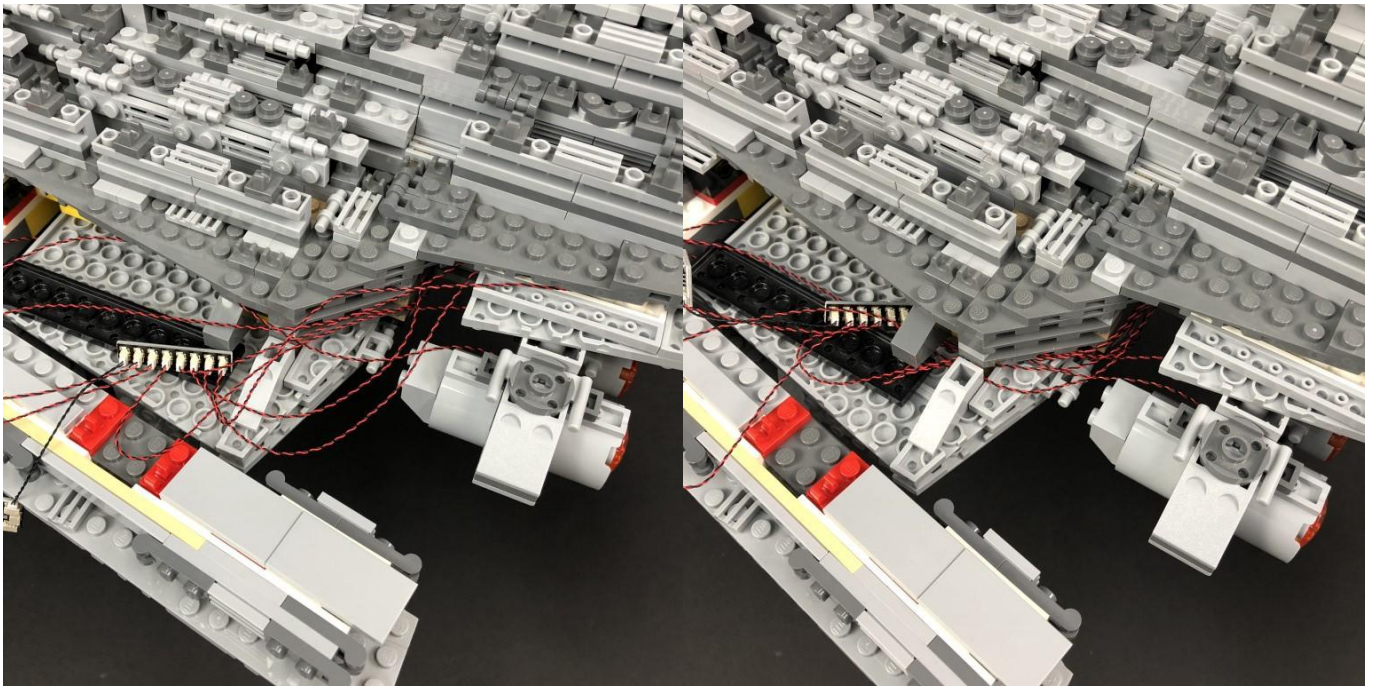
96.Remove the top section that covers the control room area then disconnect the following sections along the left side.
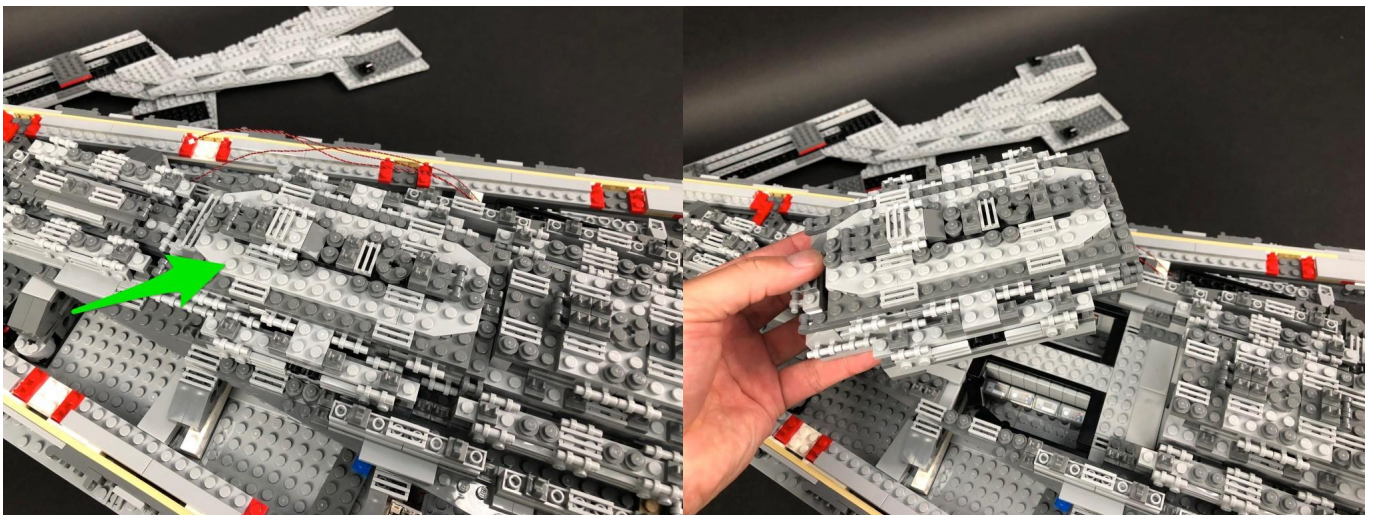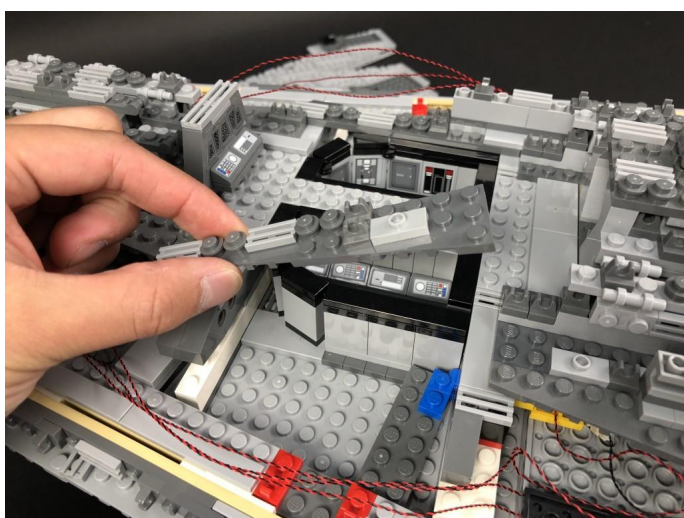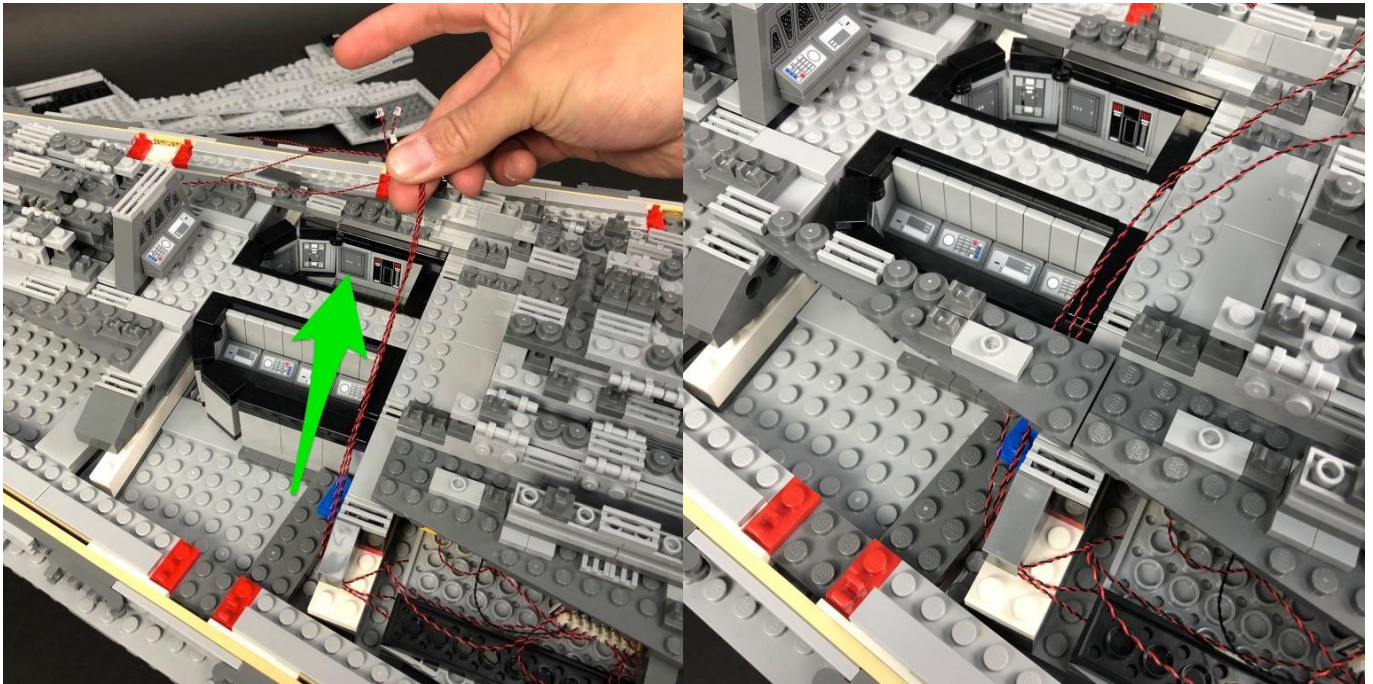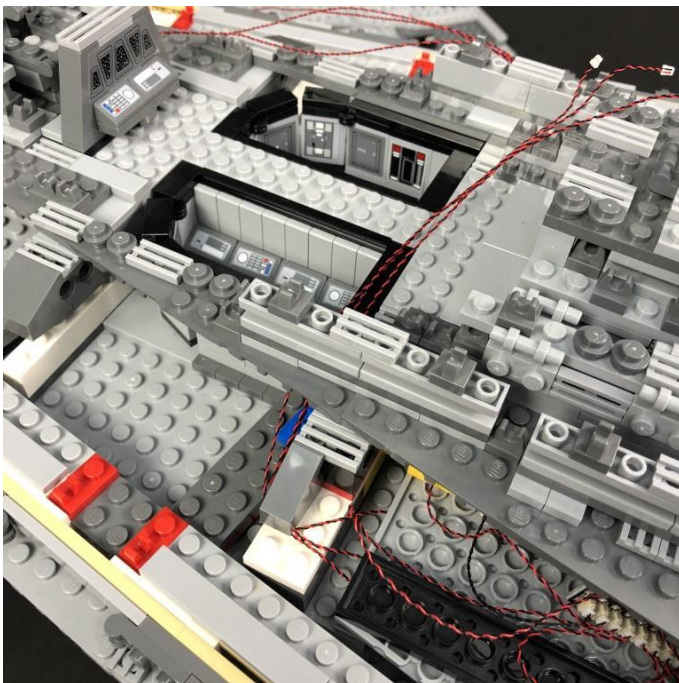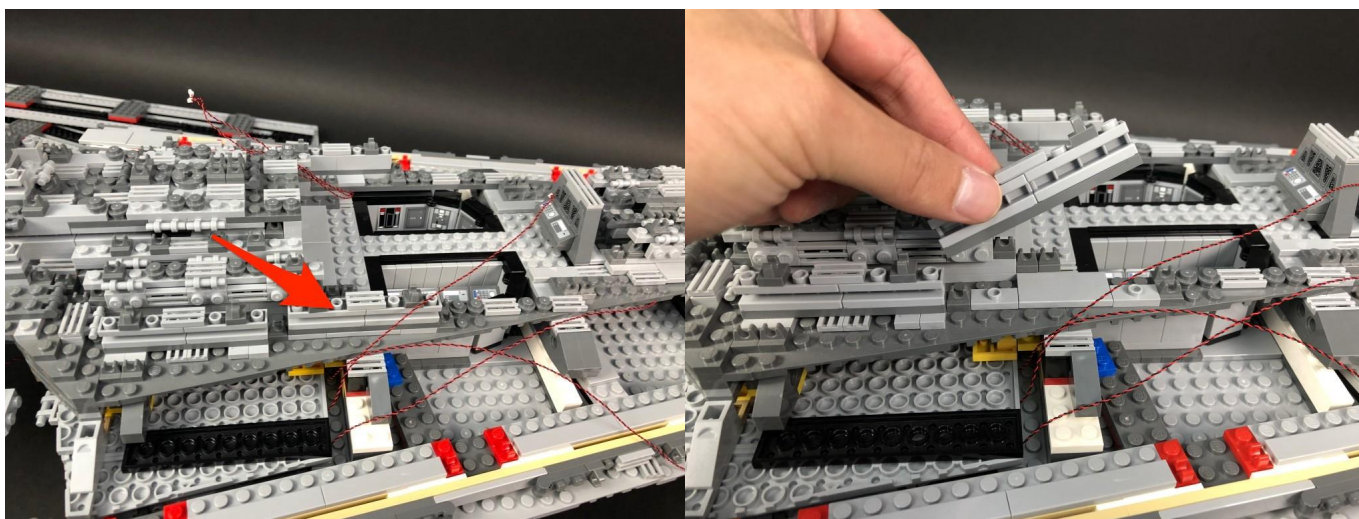
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100.Bring the three cables from the left jet section together and pull them up along the back across the control room. Reconnect sections we removed earlier over the top.
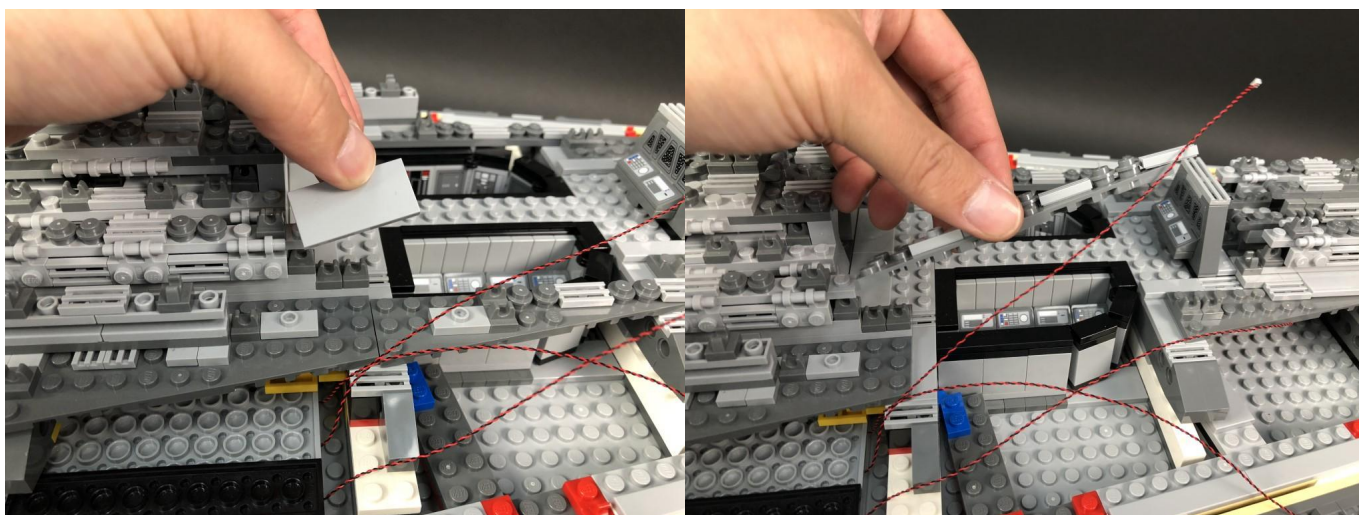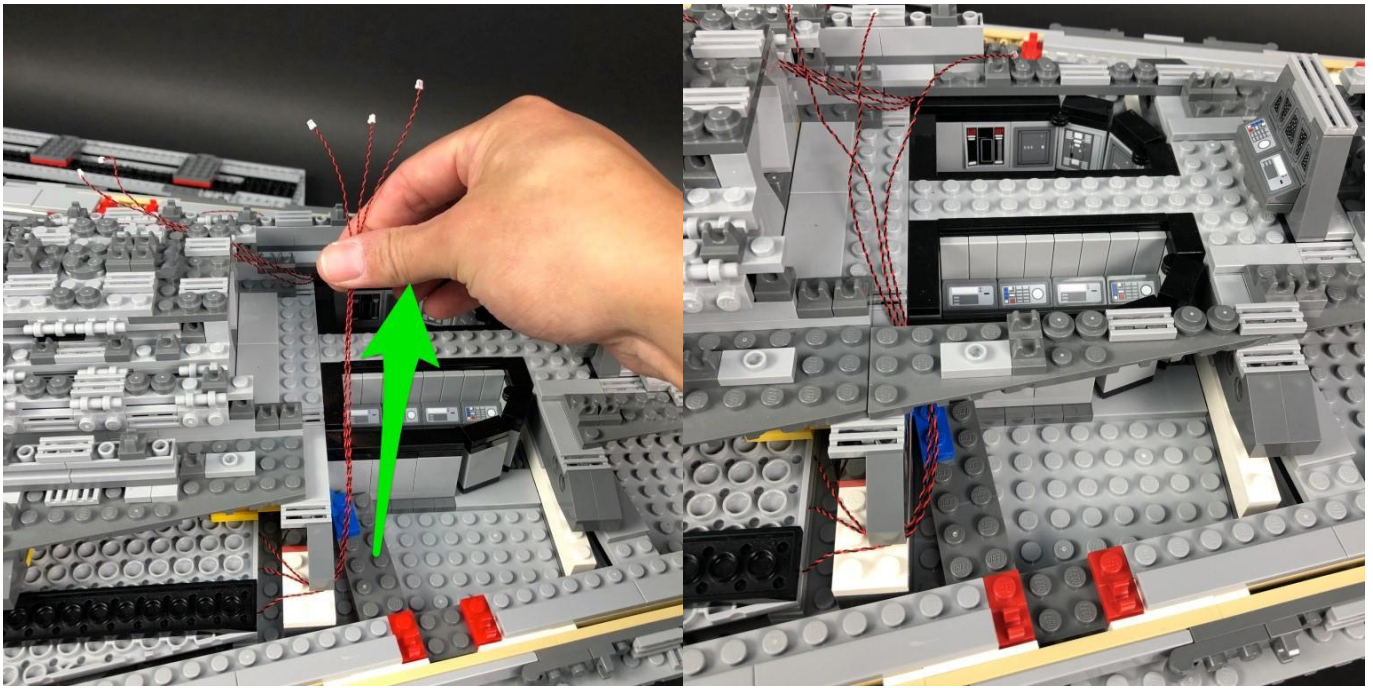

101

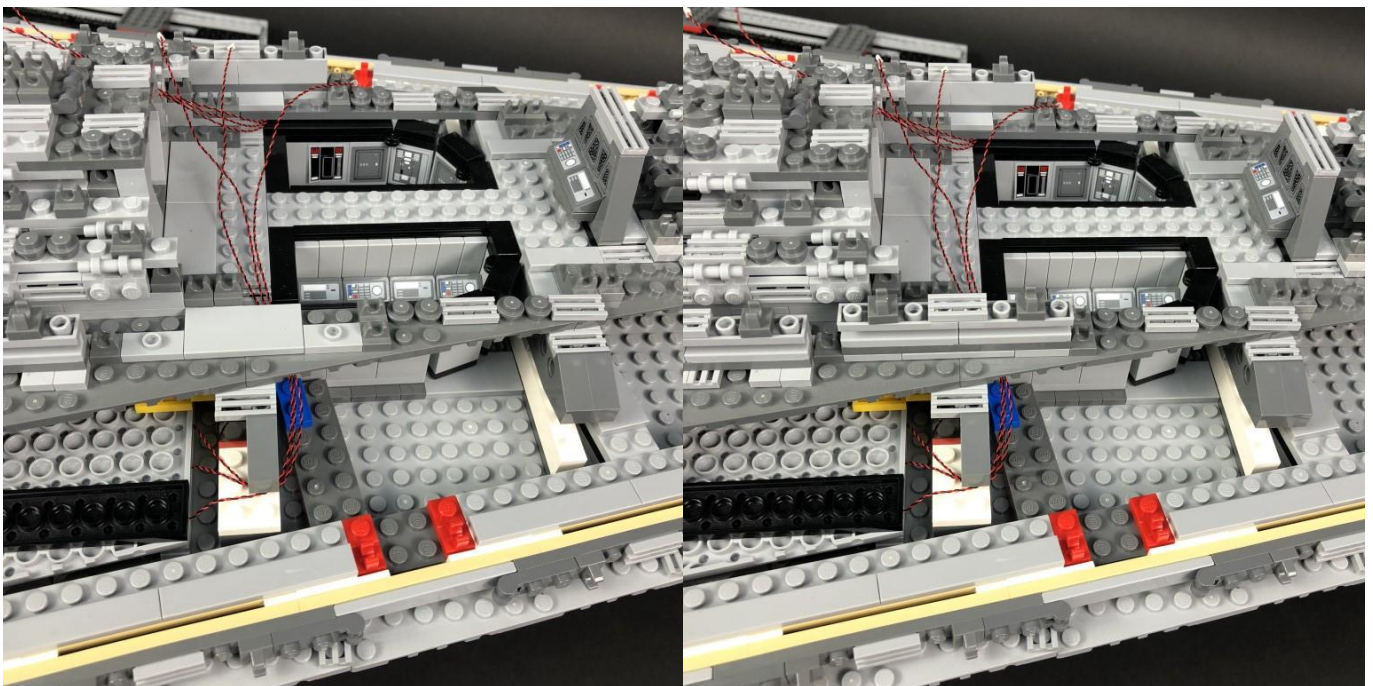**102.Turn the ship over to the right side and do the same for the cables from the right jet section.**
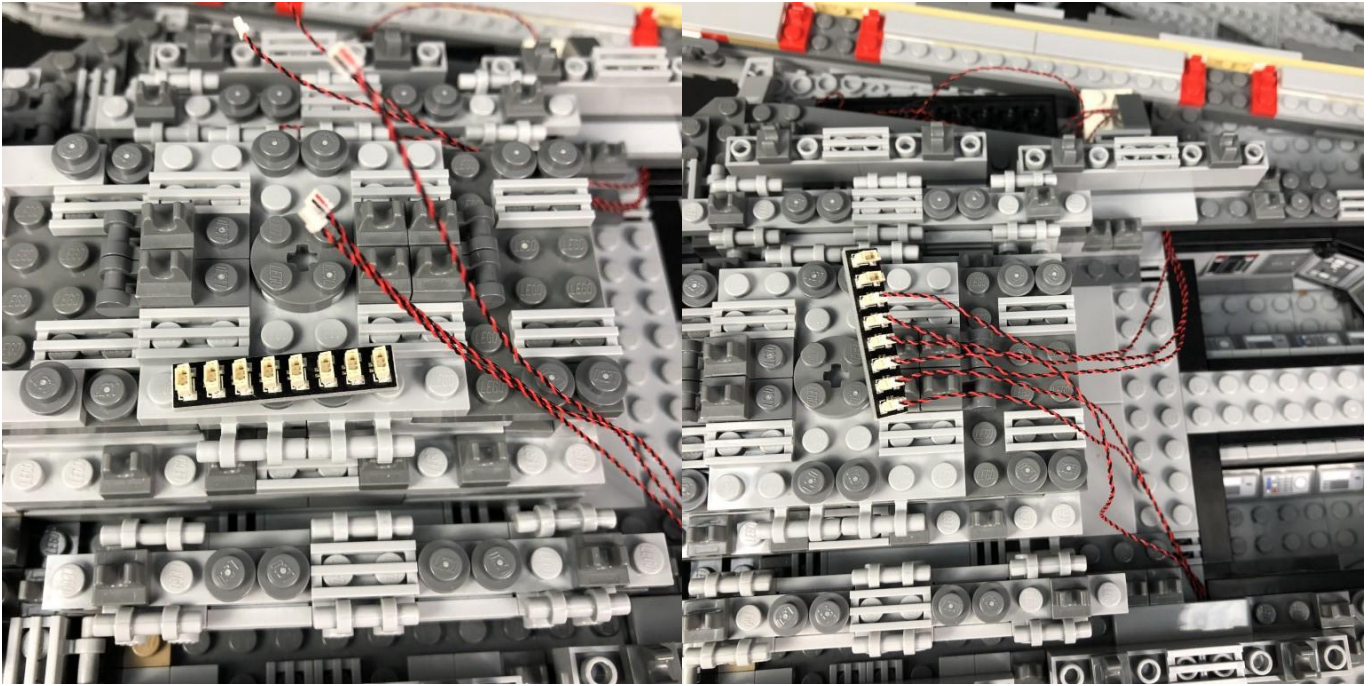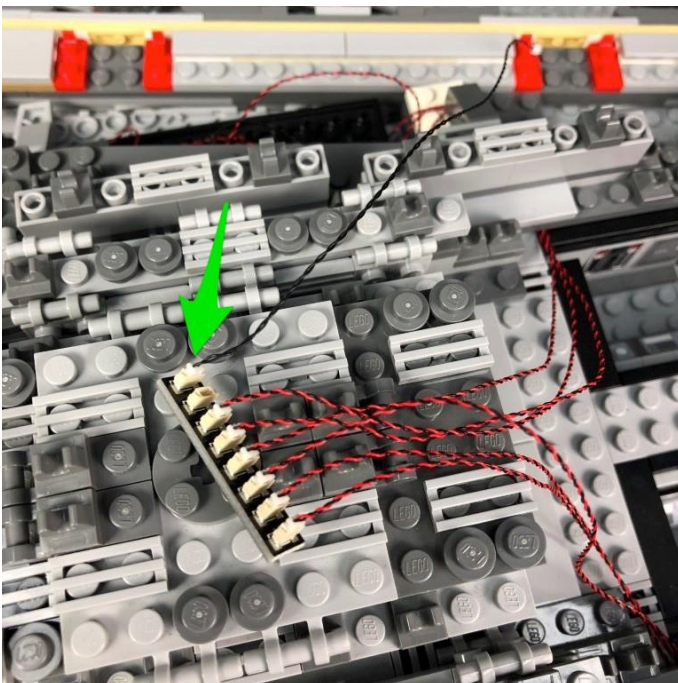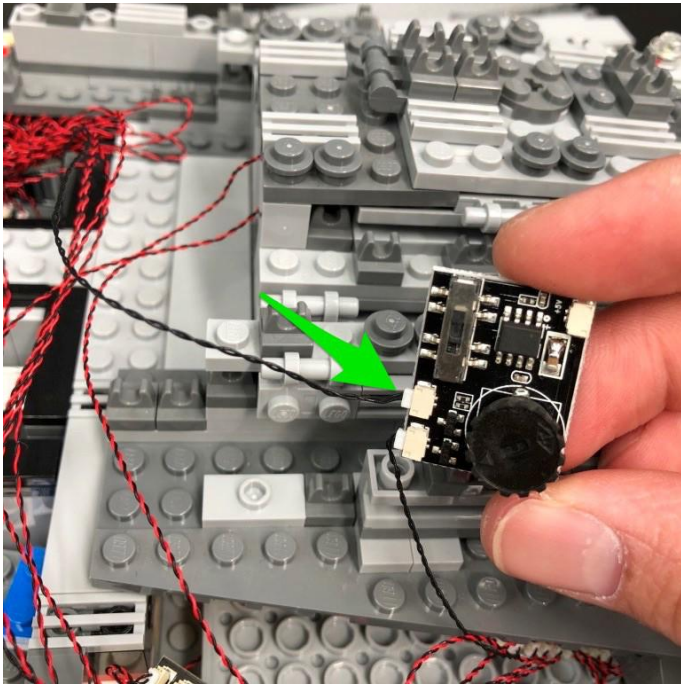

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106.Take another 8-Port Expansion Board and connect all six cables to it (three cables from each side jet section)

**107.Take a 15cm Connecting Cable and connect it to a spare port on the expansion board.**

108.Turn the ship back around to the left side and then connect the other end of the 15cm connecting cable to the other OUT port on the Multi Effects Board.


109.Take the AA Battery Pack and insert 3x AA batteries to it. Place the battery pack on top of the ship and connect the battery pack cable to the IN port on the multi effects board. Turn the battery pack ON to test all jet lights are working OK.

110.Configure your desired effect as well as the speed of the effect by flicking the switch and turning the speed wheel. The effect chosen in our product video was the 'pulse' effect. To configure this effect, flick the switch to the far left and turn the speed wheel all the way to the left as shown below.
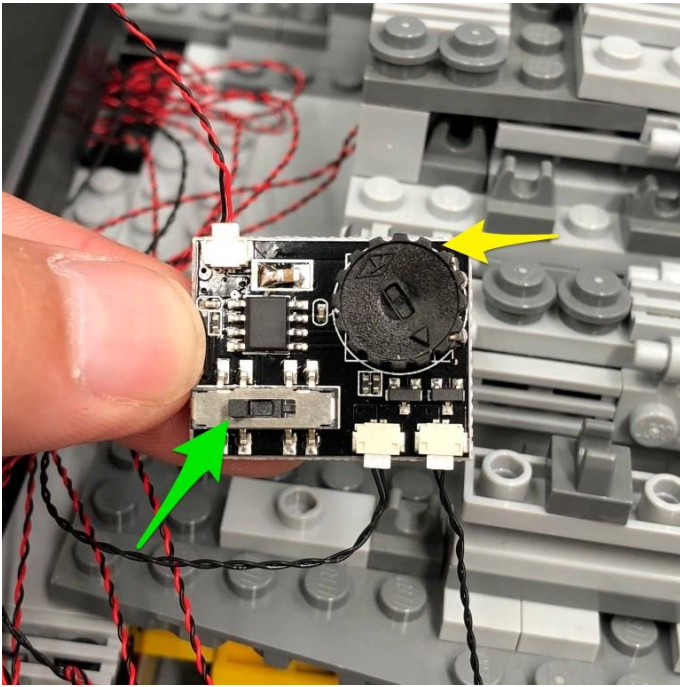
111. Configure your desired effect as well as the speed of the effect by flicking the switch and turning the speed wheel. The effect chosen in our product video was the 'pulse' effect. To configure this effect, flick the switch to the far left and turn the speed wheel all the way to the left as shown below.
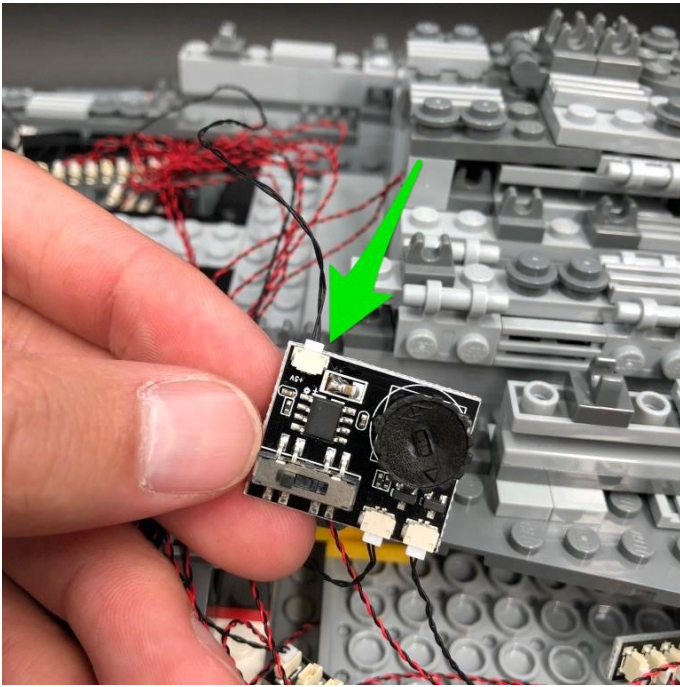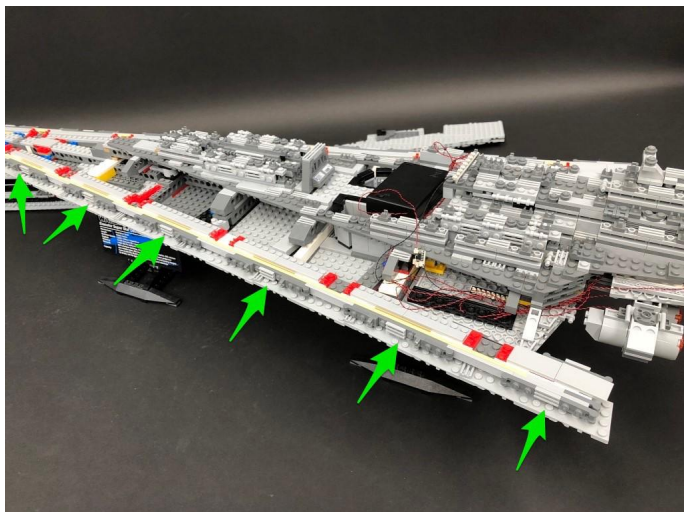
112.Remove the following sections along the left side again and neatly place all cables underneath before reconnecting the sections over the top.
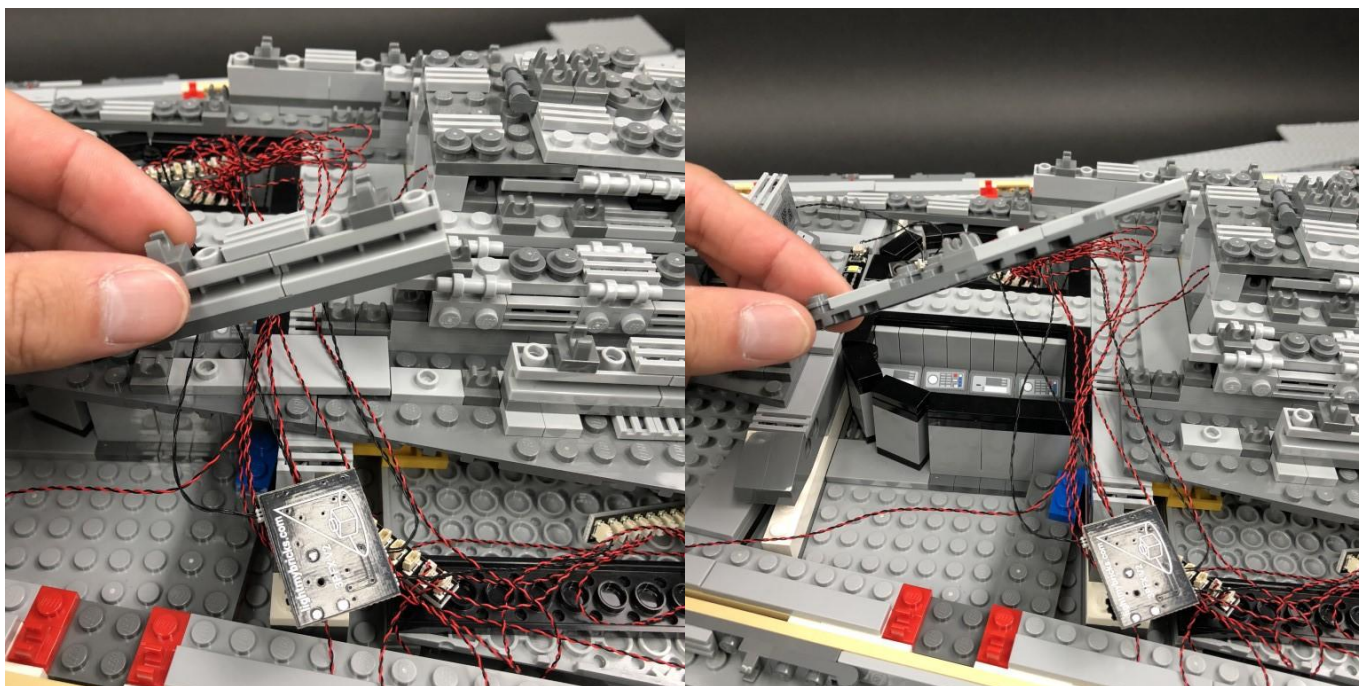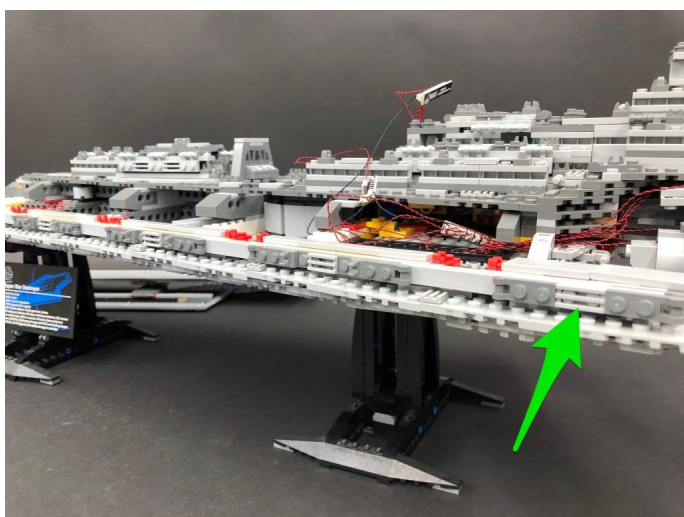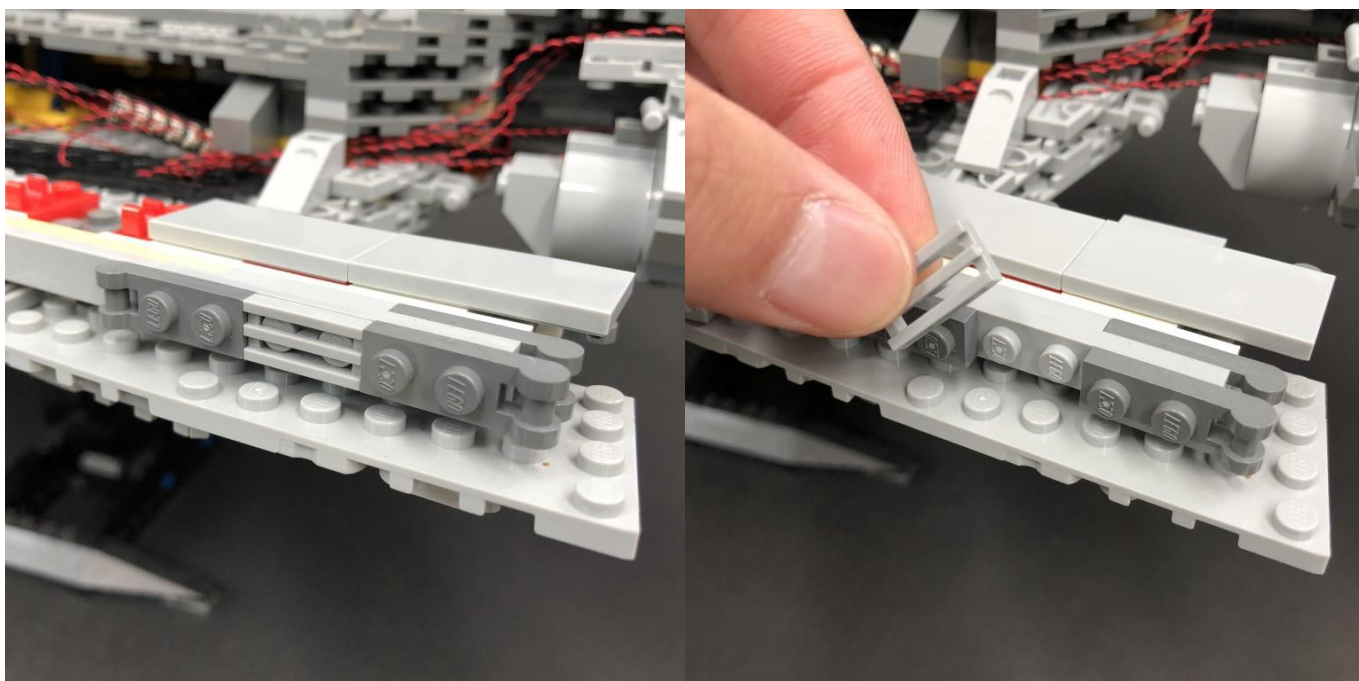

113
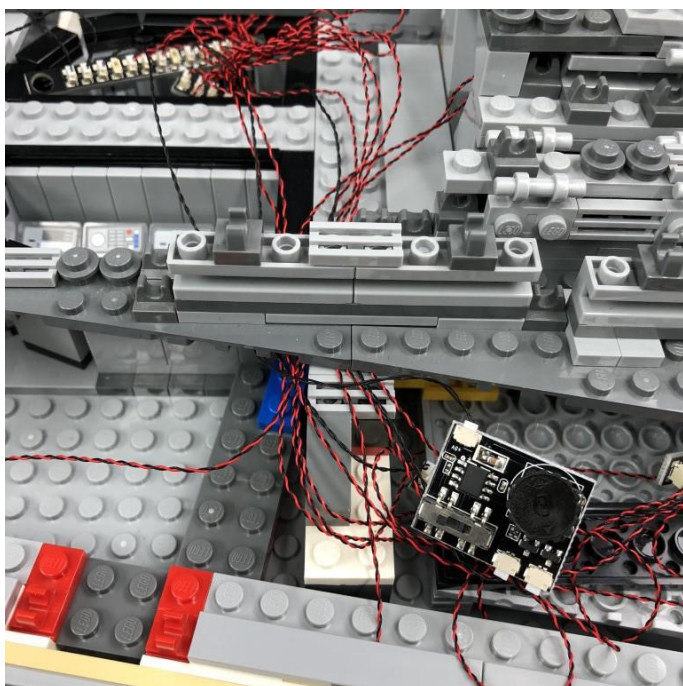
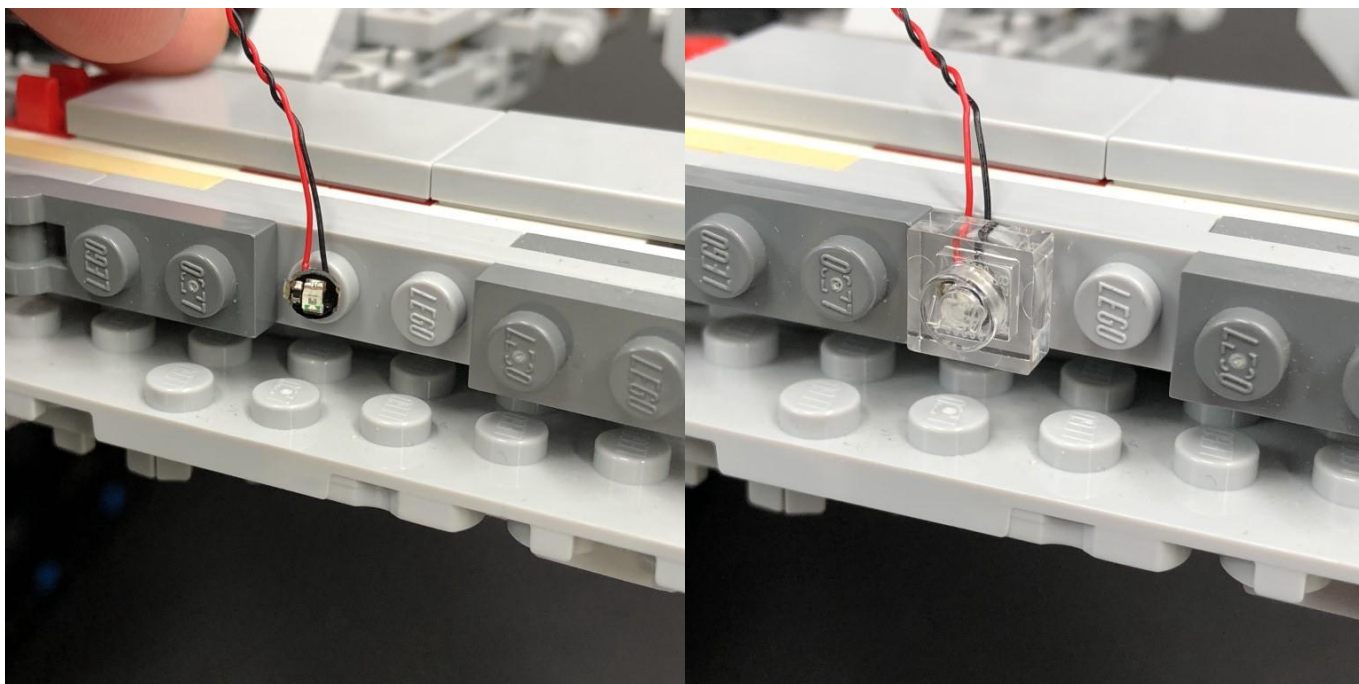**114.We will now install seven lights along each side of the ship.**

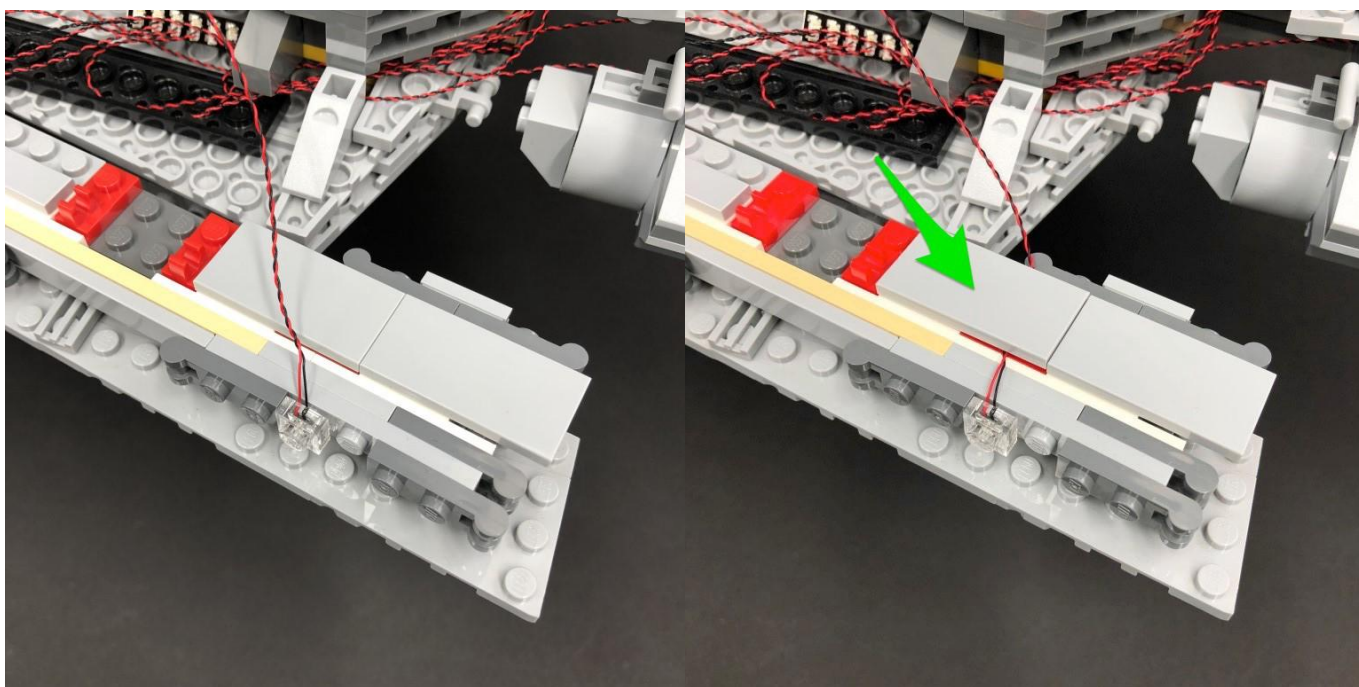**115.Starting toward the back, remove the following grill tile.**


116

117. Take a Blue 30cm Dot Light and with the cable facing up, place it over the left stud as per below. Secure it in place by connecting a provided   Trans Clear Plate 1x1 over the top.
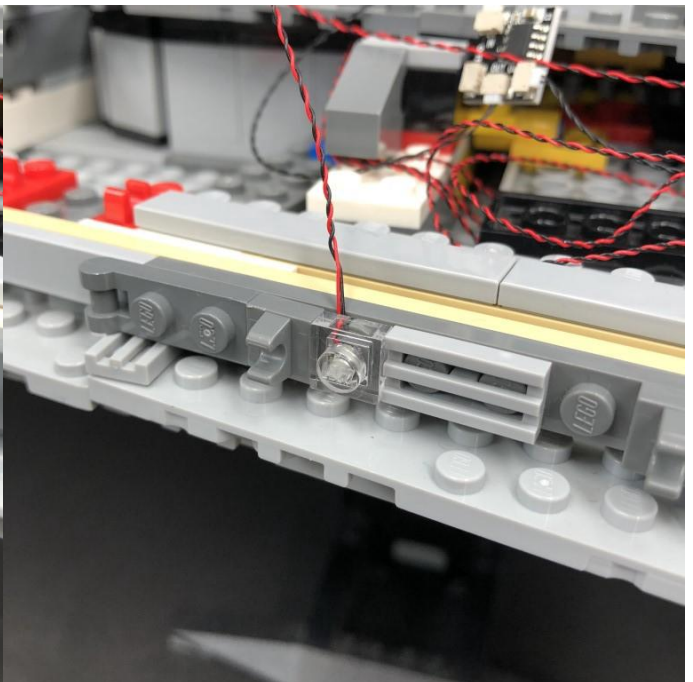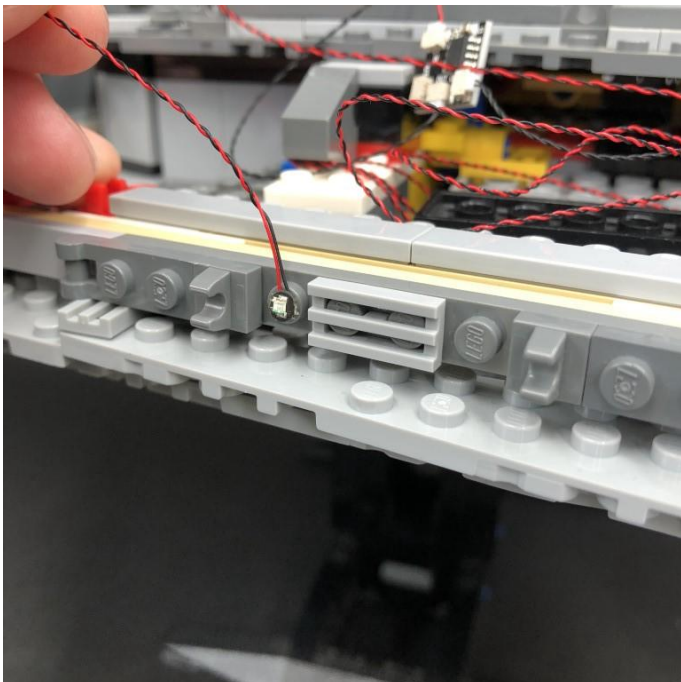

118. Hide the cable by laying it underneath the following 2x4 tile ensuring the cable is laid in between studs.
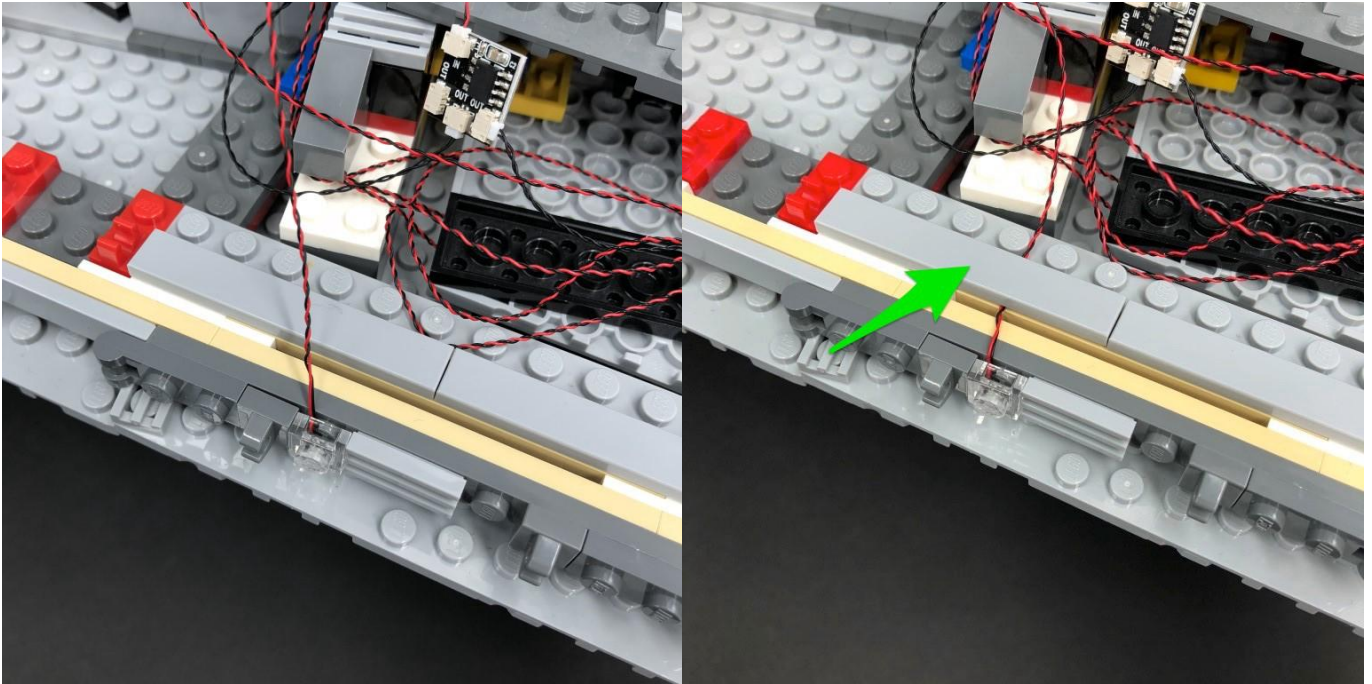
119.Install another Blue 30cm Dot Light to the next grill tile along the left side of the ship except this time, install the light to the stud on the left rather than in lieu of the grill plate. Secure it in place by connecting another provided Trans Clear Plate 1x1.
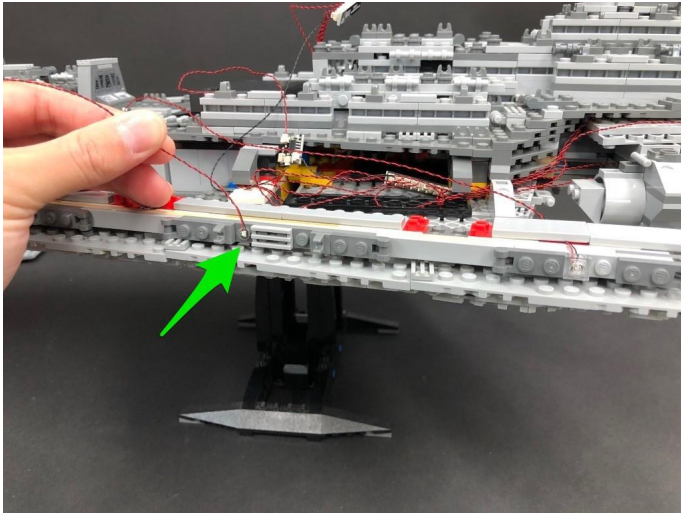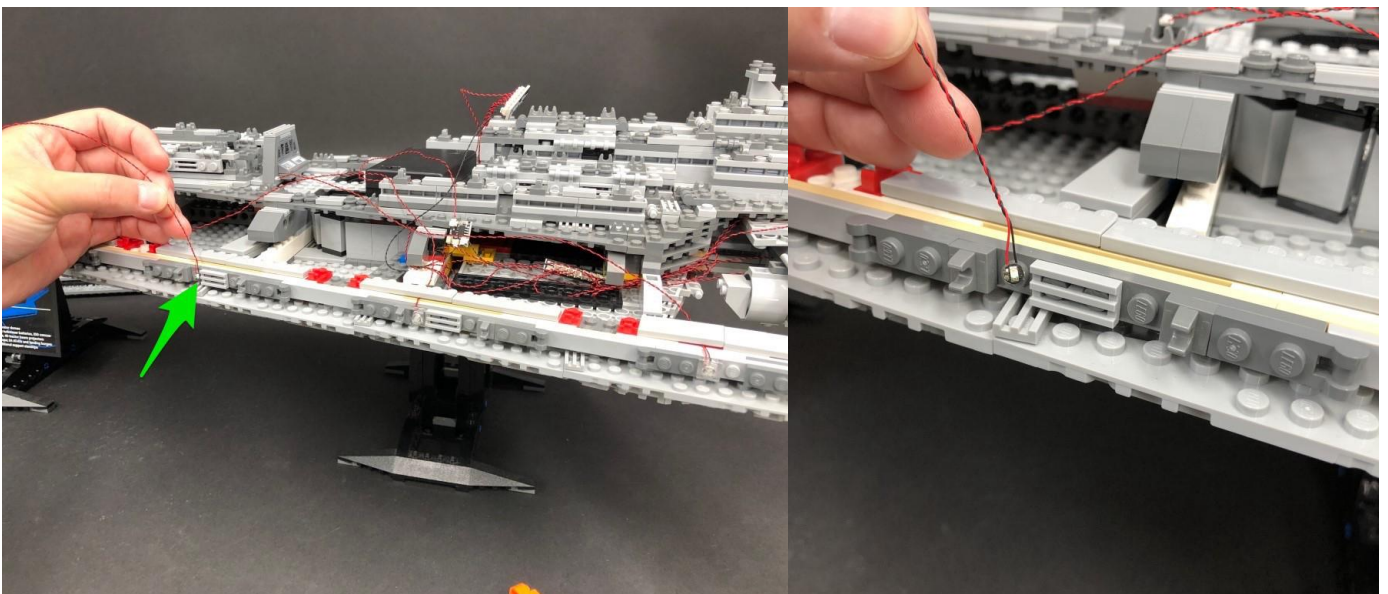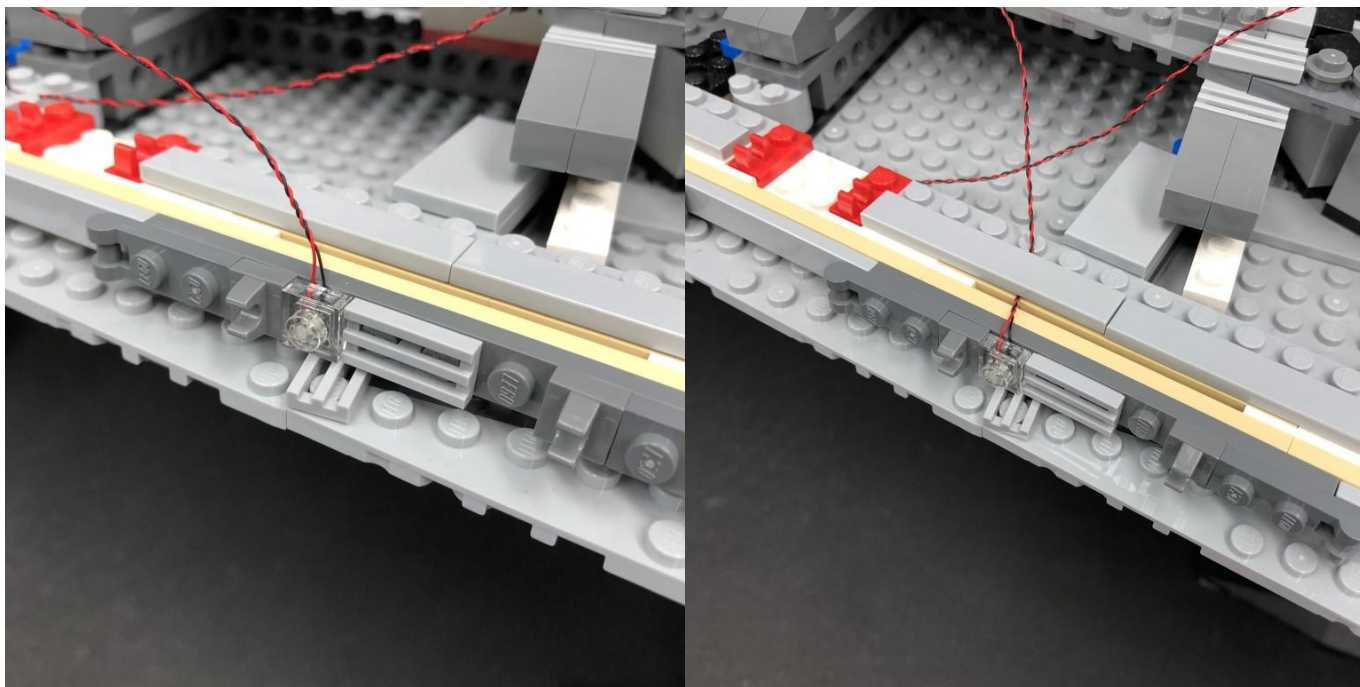

120

121.Hide the cable underneath the following tile ensuring the cable is laid in between studs.
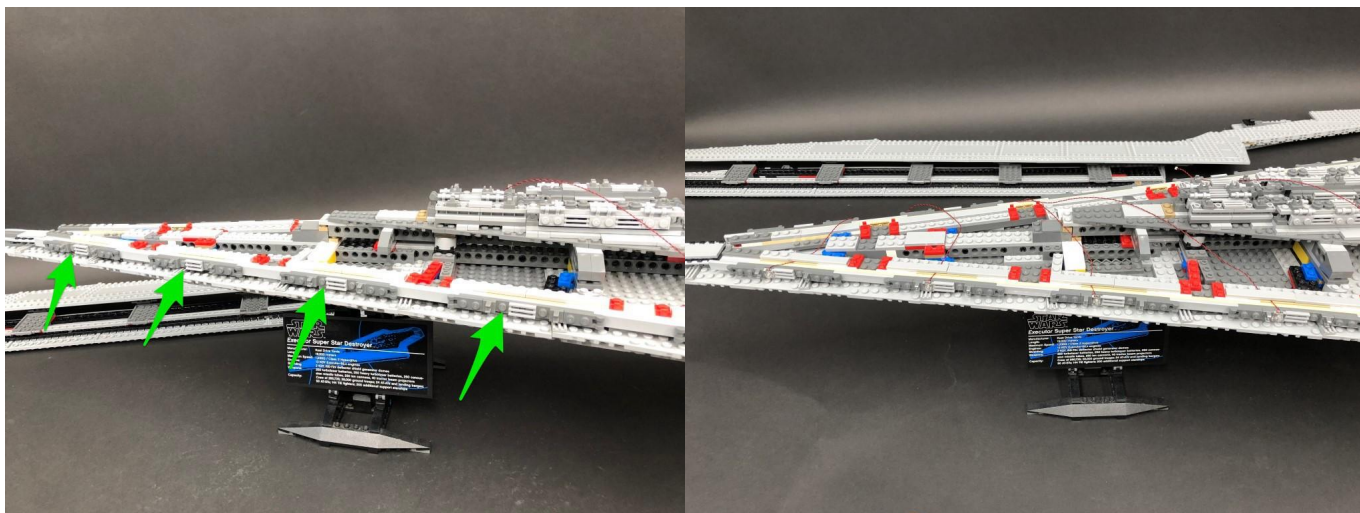

122.Repeat previous step to install another 5x Blue 30cm Dot Lights to the left side of the remaining grill plates along the side. Secure them all in place using one of the 5x provided   Trans Clear Plate 1x1 and hide the cables underneath the tiles above each light.
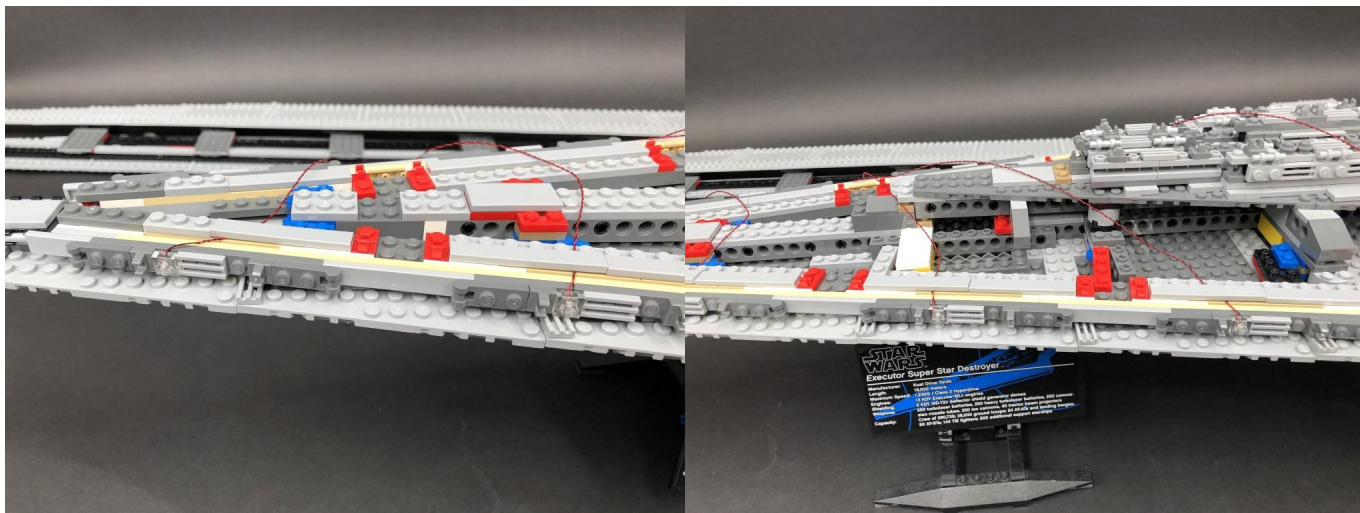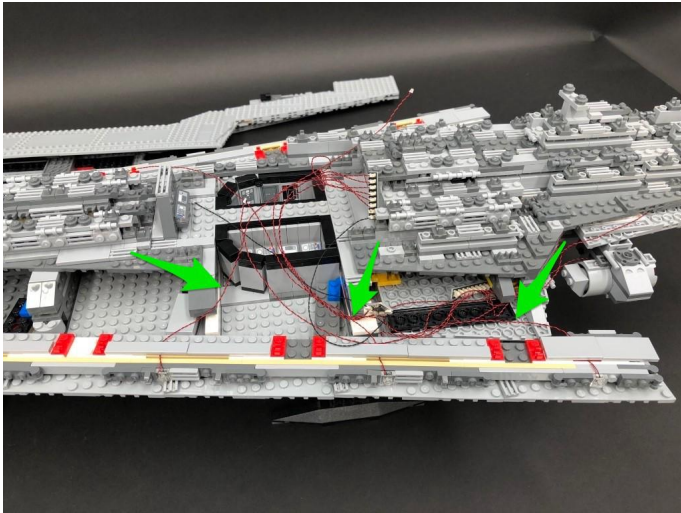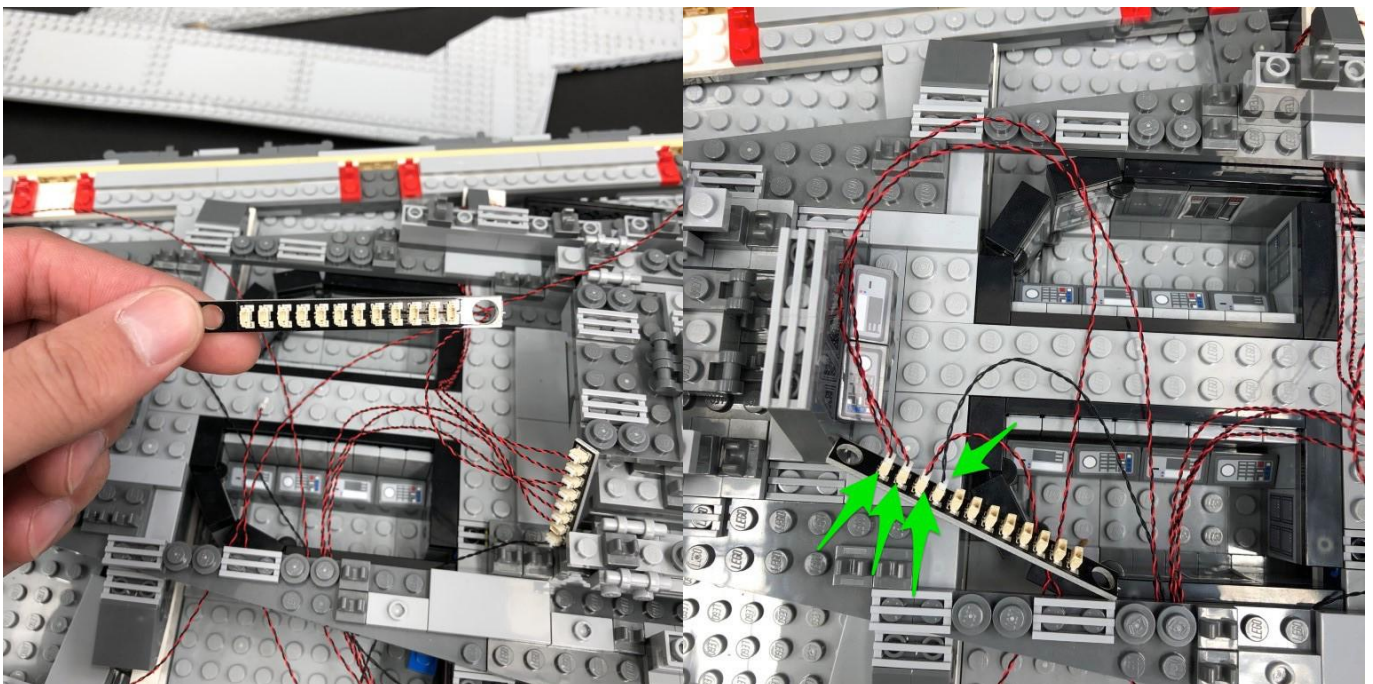
123

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125

126.Take the back three blue Dot Light cables as well as the other end of the 15cm connecting cable from the multi effects board (Step 19) and connect them to the first few ports on a 12-Port Expansion Board
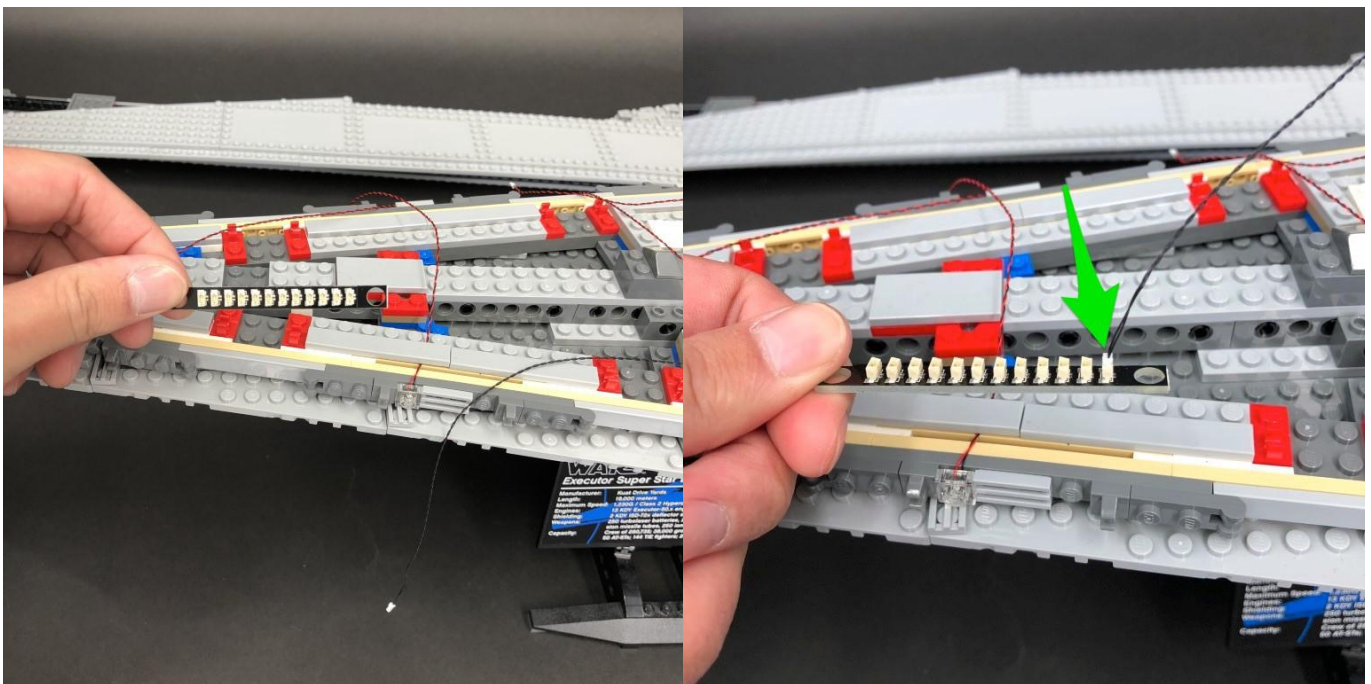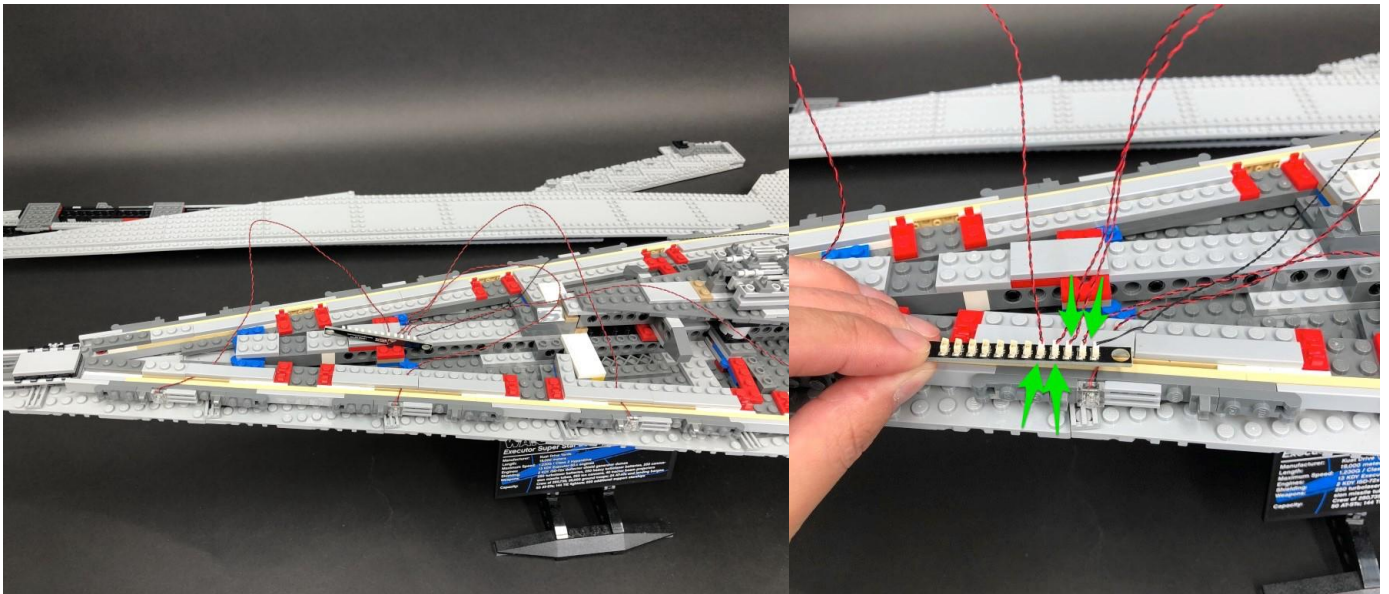

127

128.Take a 50cm Connecting Cable and connect it to the far left port on the 12-port expansion board. Bring the cable toward the top of the ship and then connect it to the end port of a new 12-Port Expansion Board.
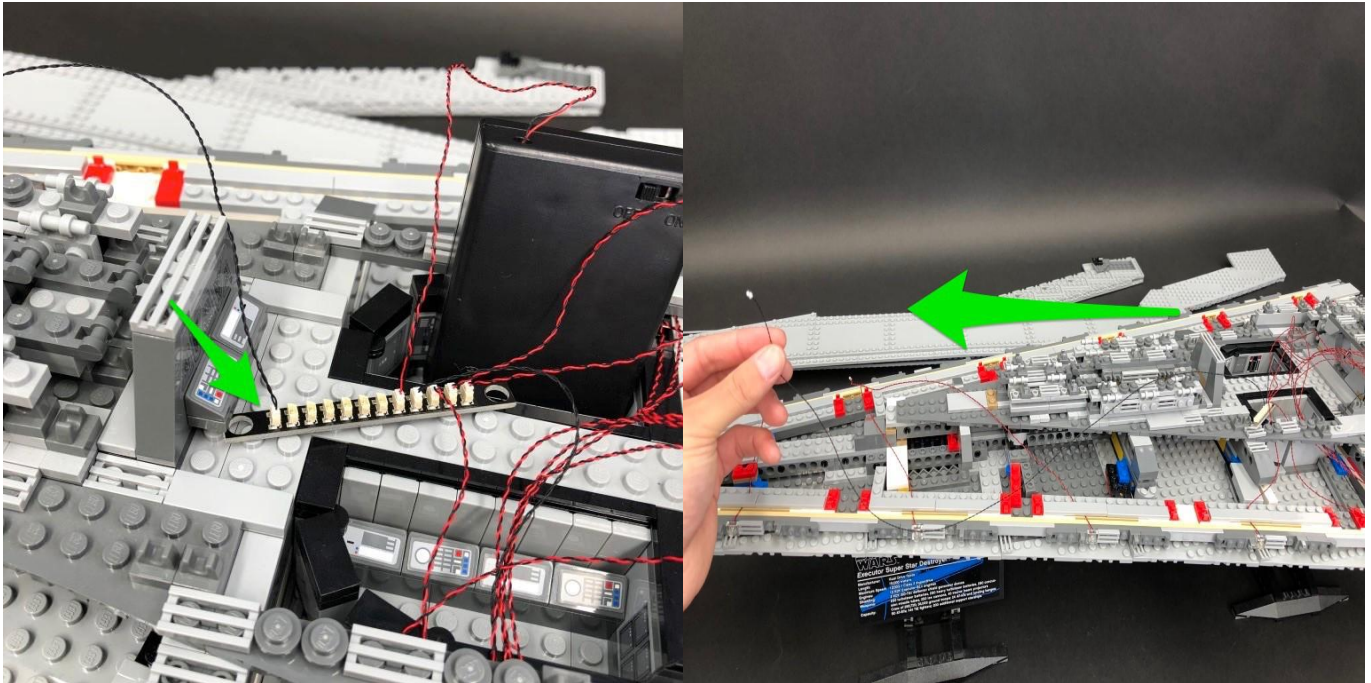

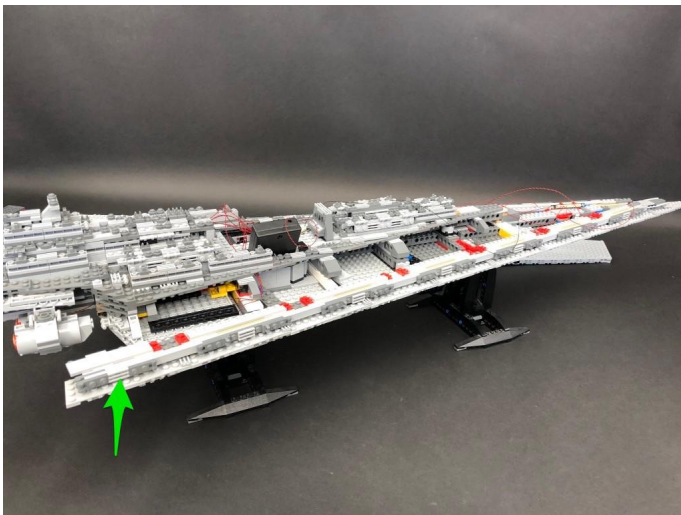
129

130.Take the remaining four blue Dot Light cables toward the top of the ship and connect them to the 12-Port Expansion Board near by.


131.Take the AA Battery pack and connect the battery pack cable to the 12-port Expansion Board. Turn the battery pack ON to test all the blue lights are working OK. They should be illuminated along with the back jet lights however, they should be static (steady ON).
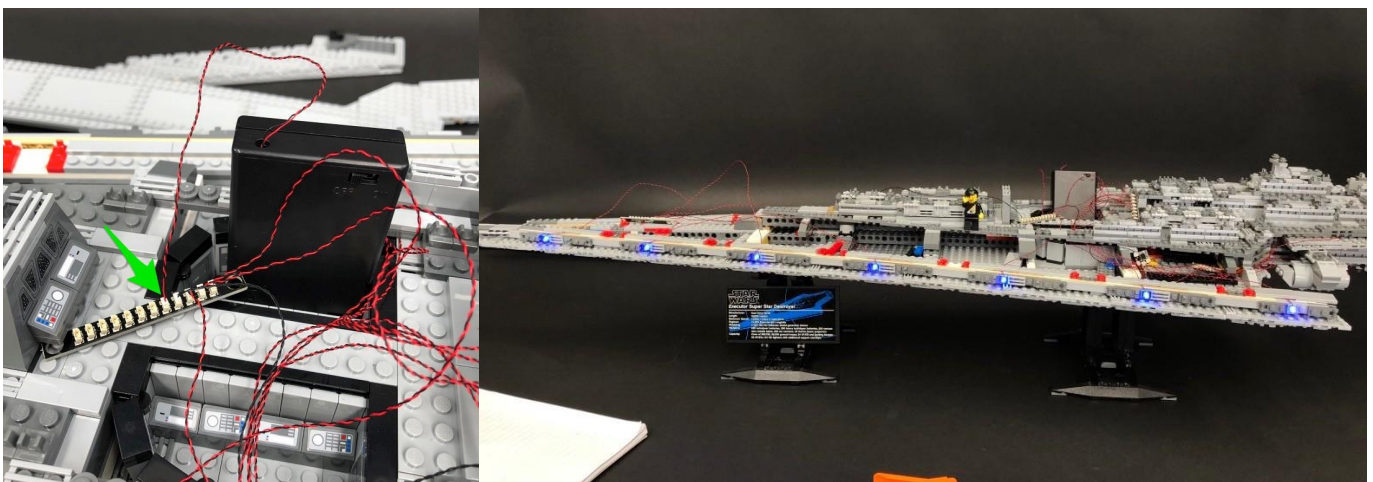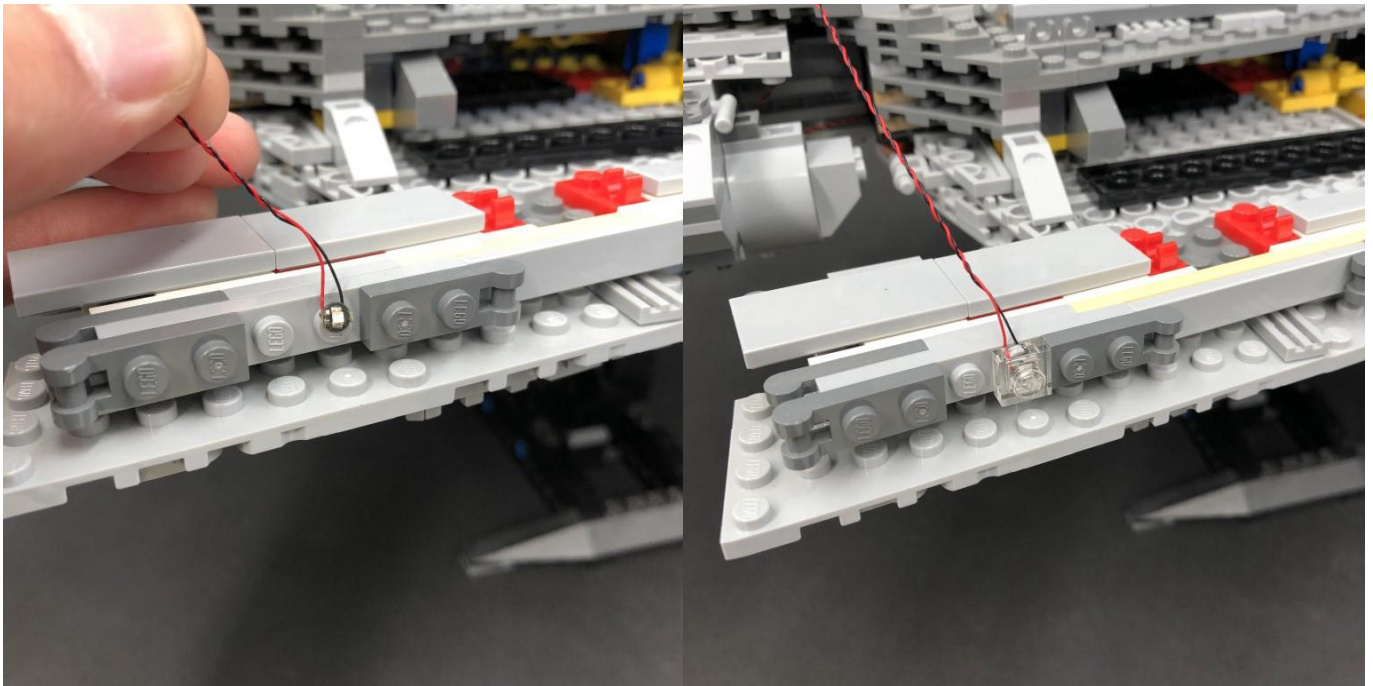
132.Turn the ship over to the other side and then follow steps 20–22 to install another 7x Blue 30cm Dot Lights along the right side of the ship. Secure all Dot Lights using 7x provided   Trans Clear Plate 1x1.Ensure you hide all cables underneath each tile directly above.
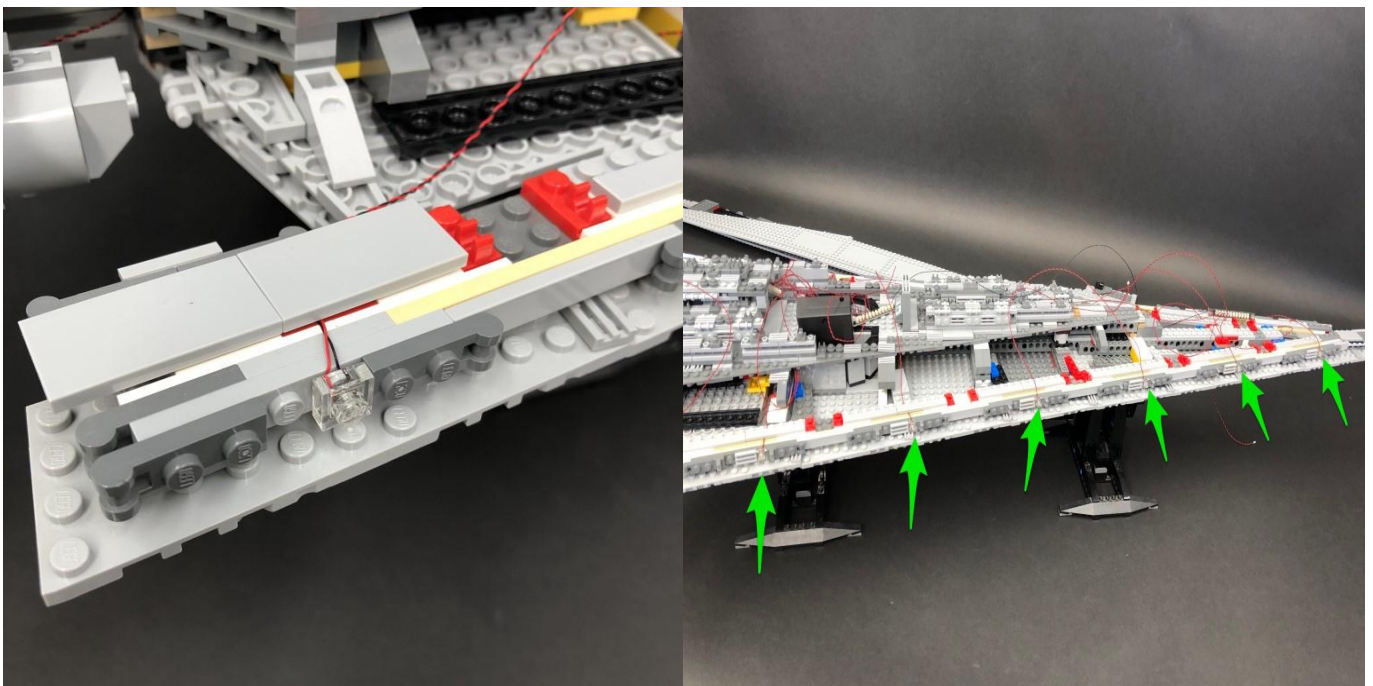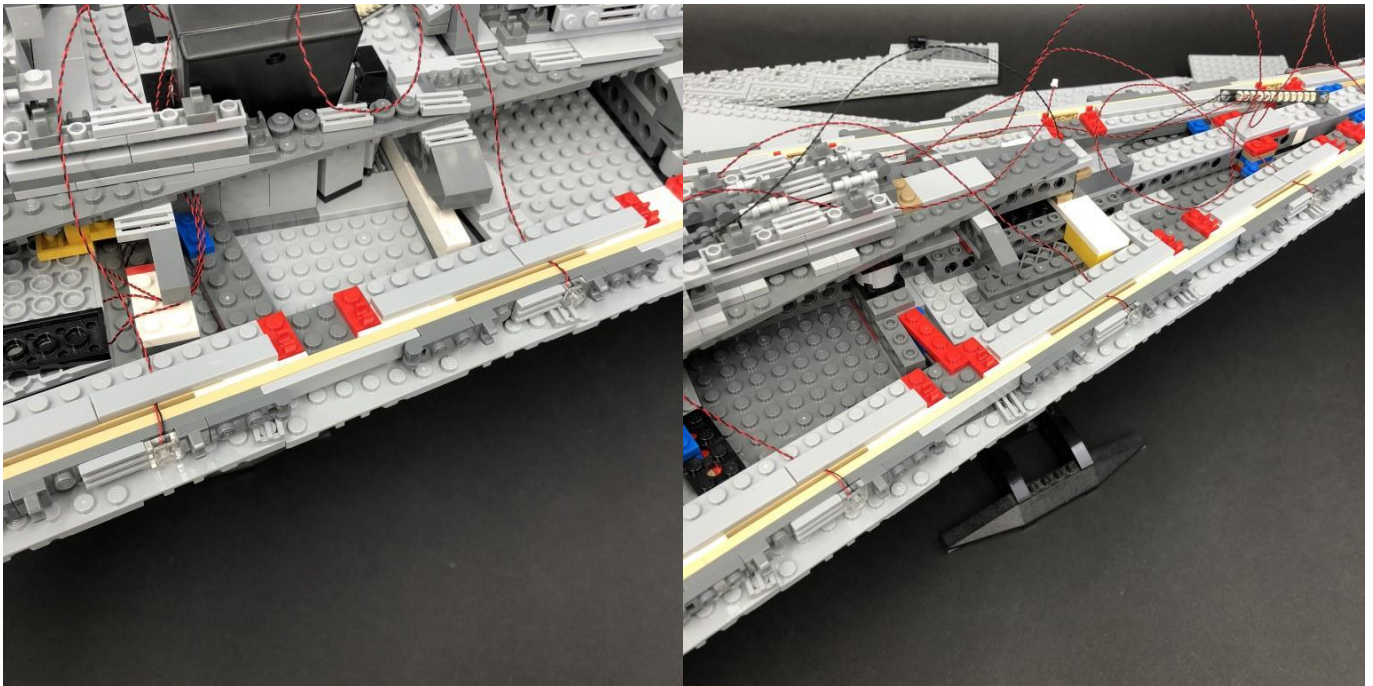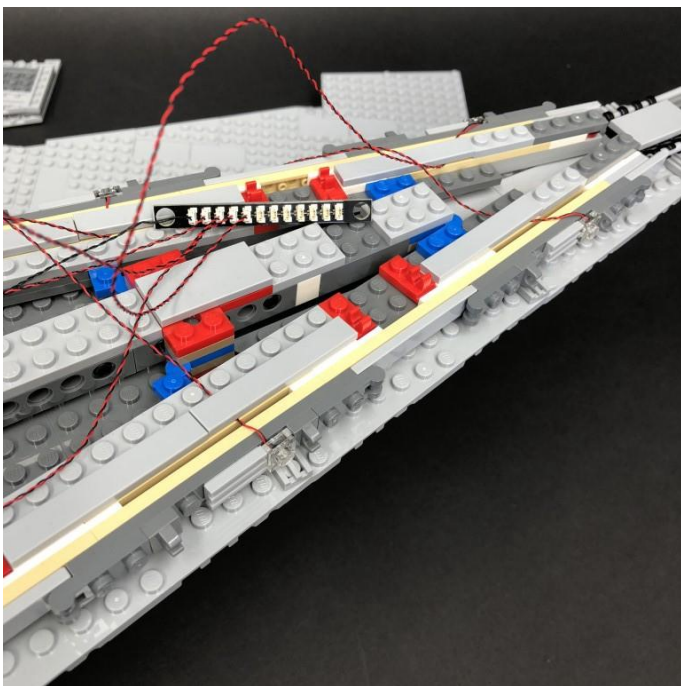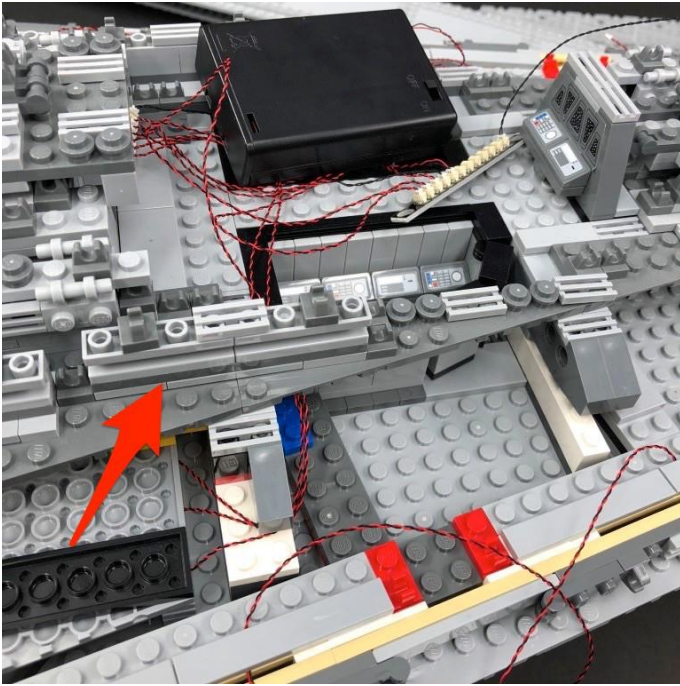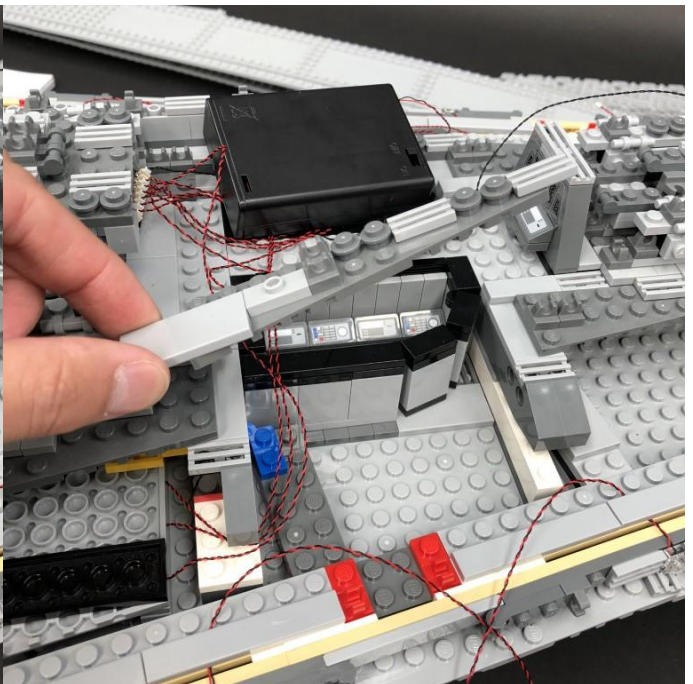

133
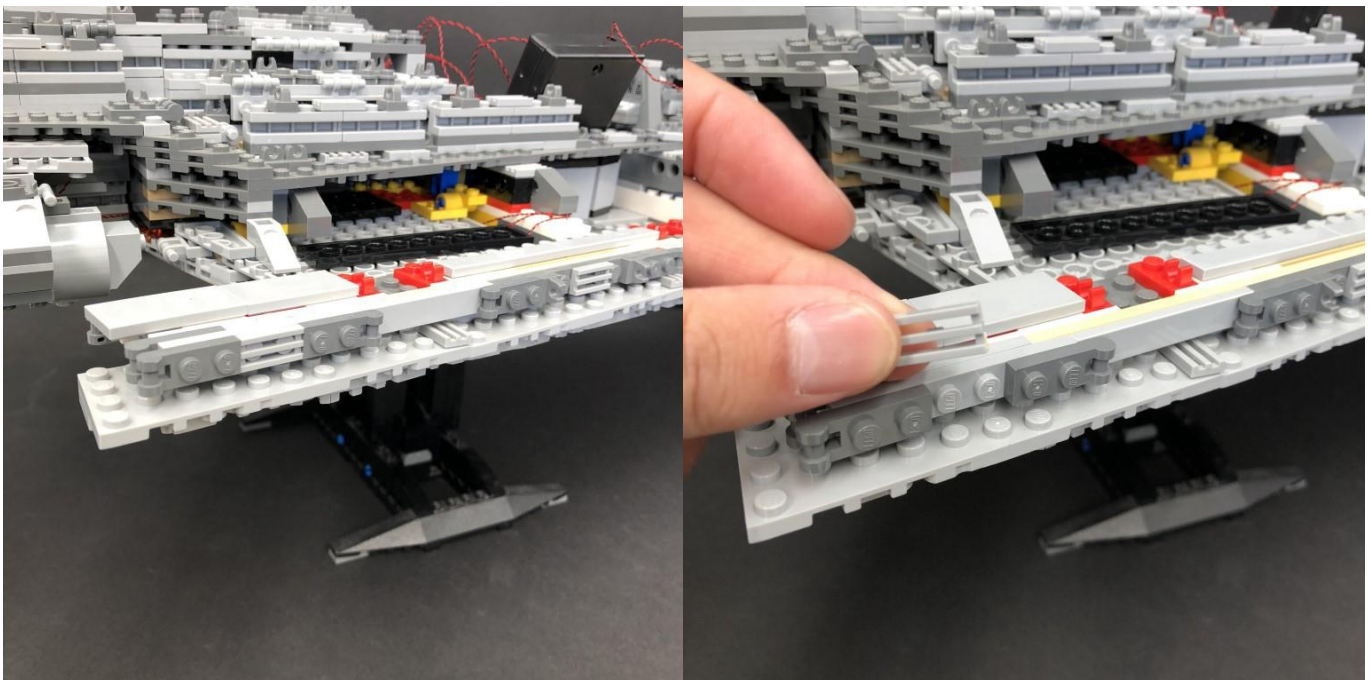
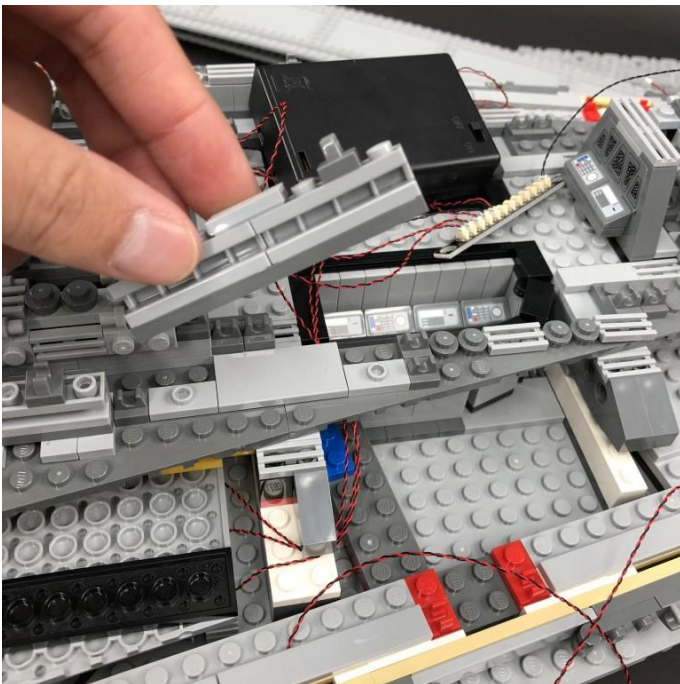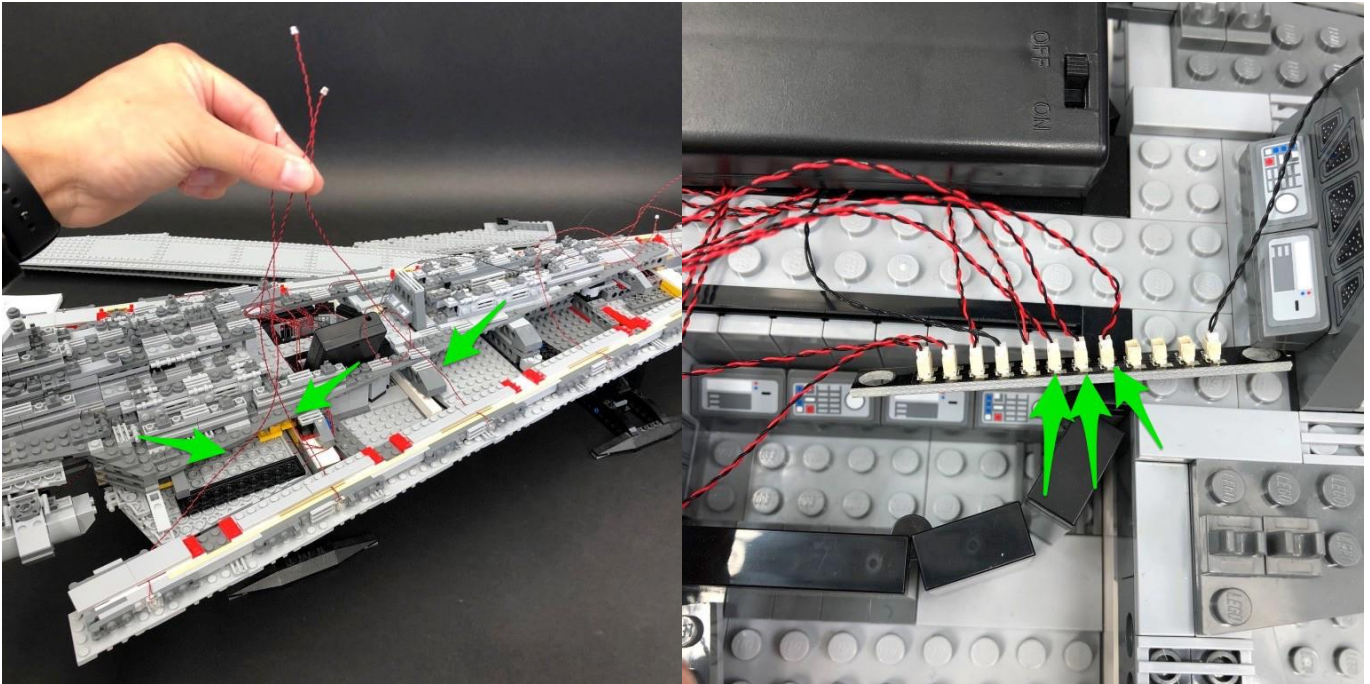**134**

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138.Remove the following sections on the right side of the ship.
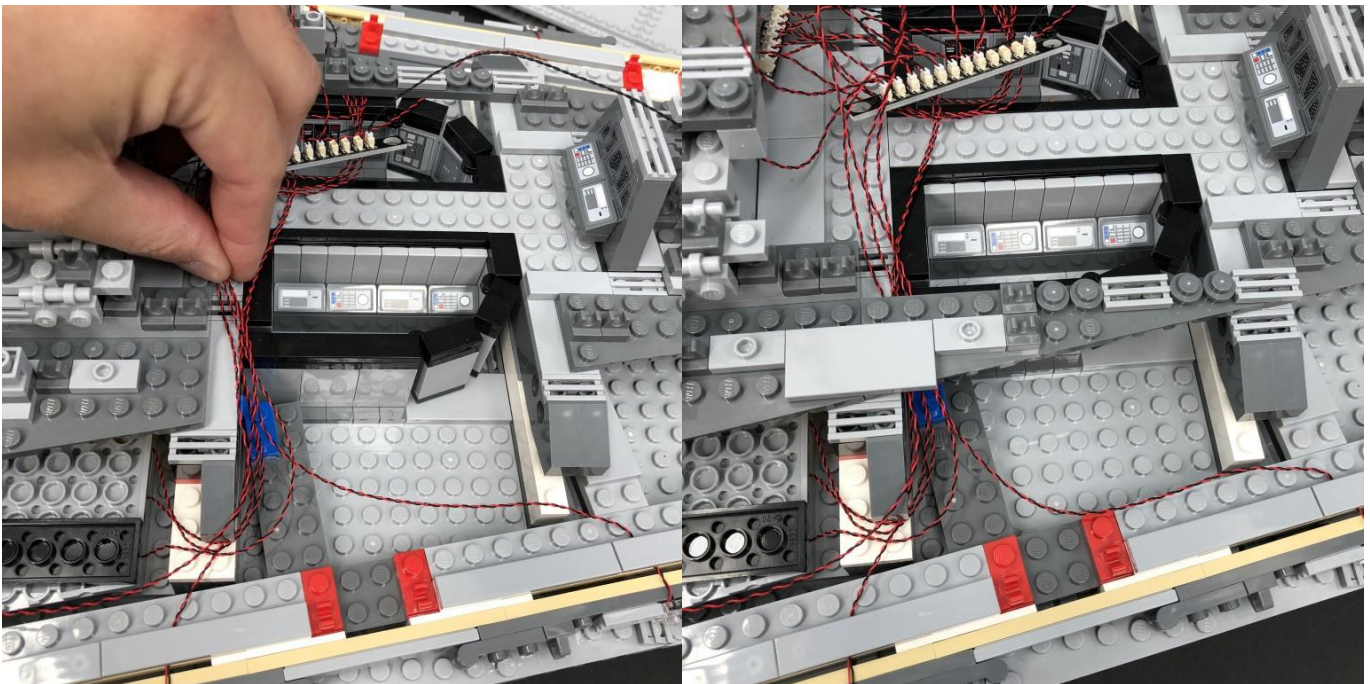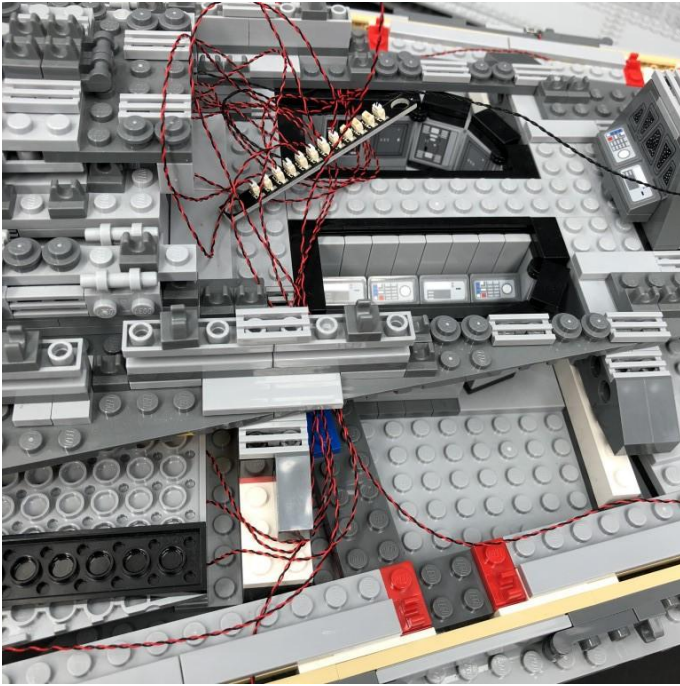

139

140.Take the back three blue Dot Light cables and connect them to the 12-Port Expansion Board near the control room area.
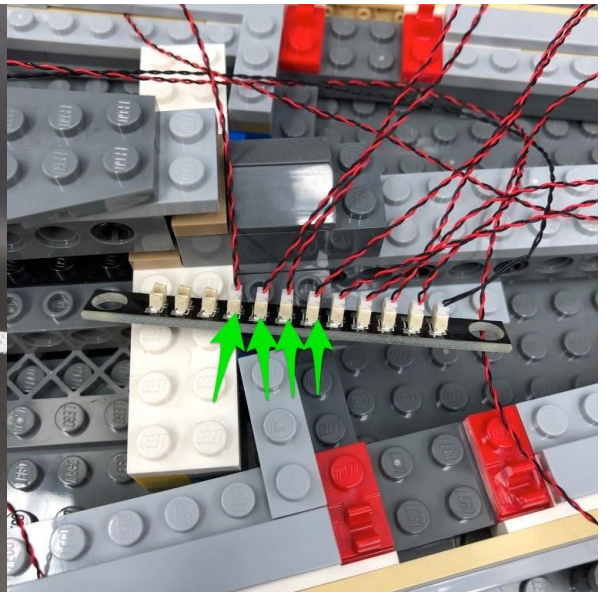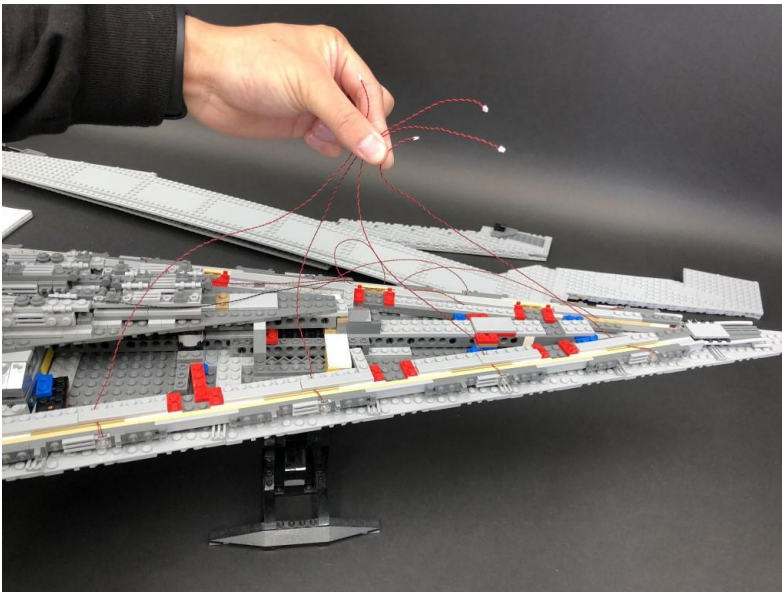

141.Group the three cables together and secure them along the back side of the control room. Reconnect sections we removed earlier over the top.
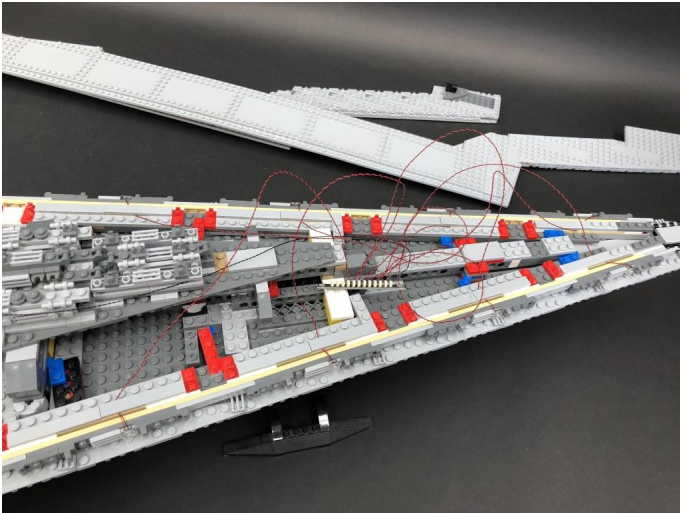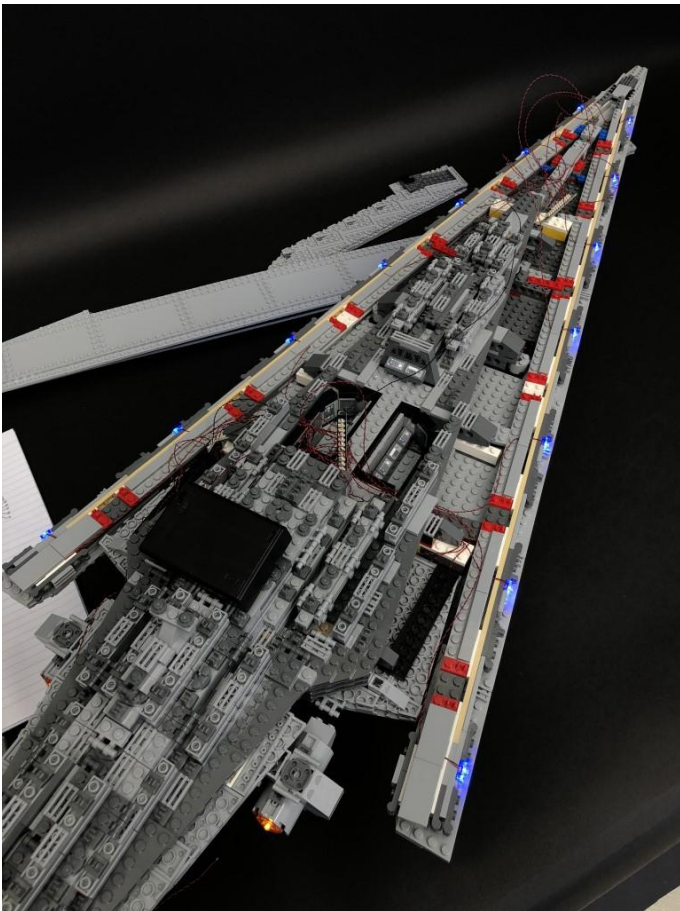
143.Take the four remaining blue Dot Light cables toward the top right side of the ship and connect them to the next ports along on the 12-port expansion board above.

**145.Turn the Battery Pack ON to verify all lights along the two sides are working OK**

146.Turn the ship back over to the left side and neaten up cables. Start by grouping together the four cables at the front of the ship (two from each side). Fold and twist them around each other several times so they all come together. Tuck the bunched up cables inside any of the spaces below.
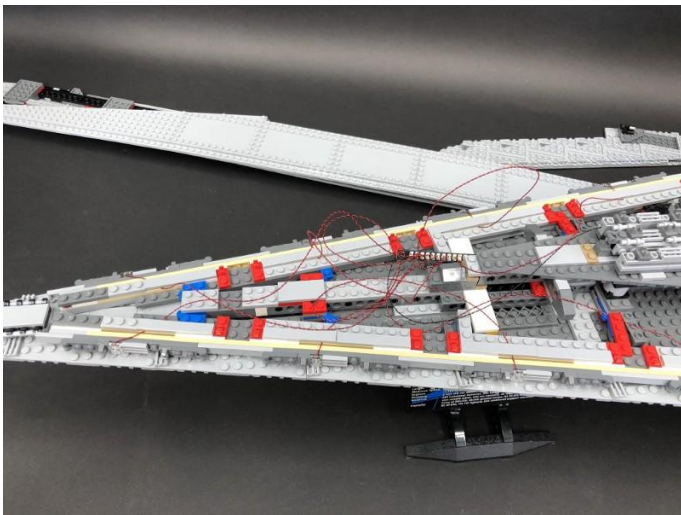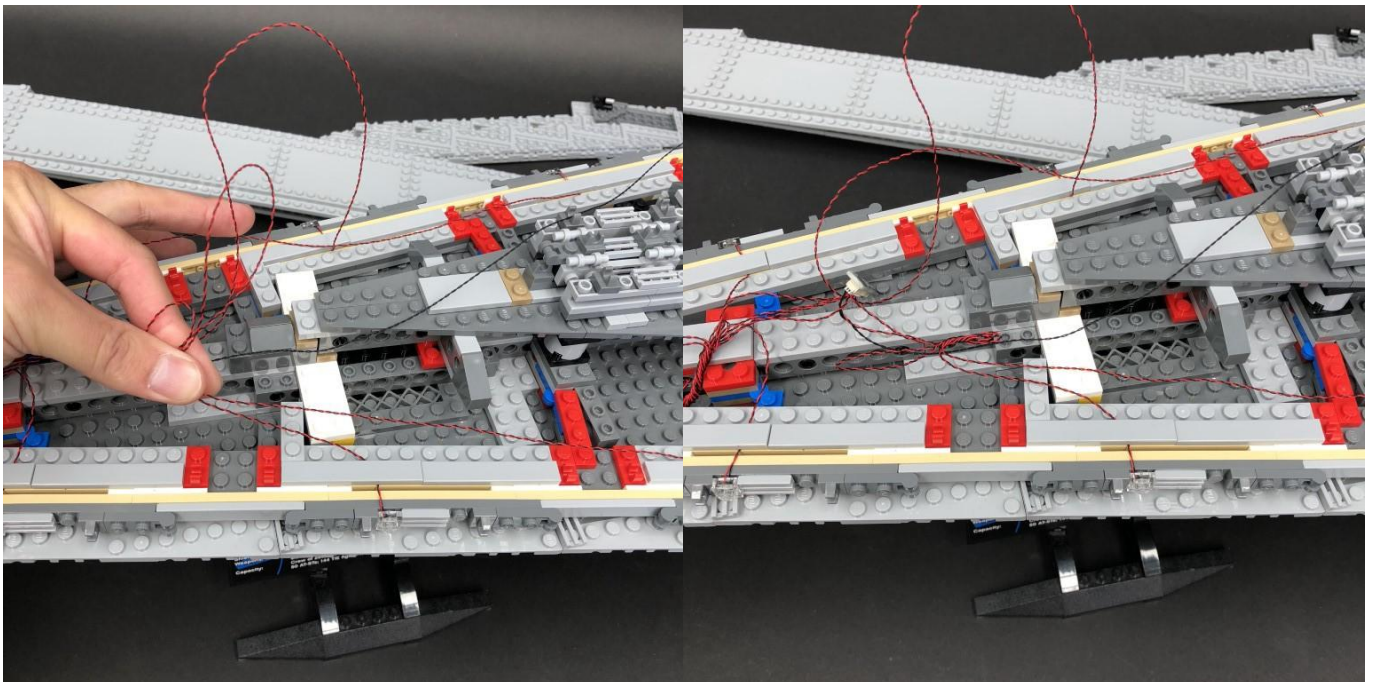

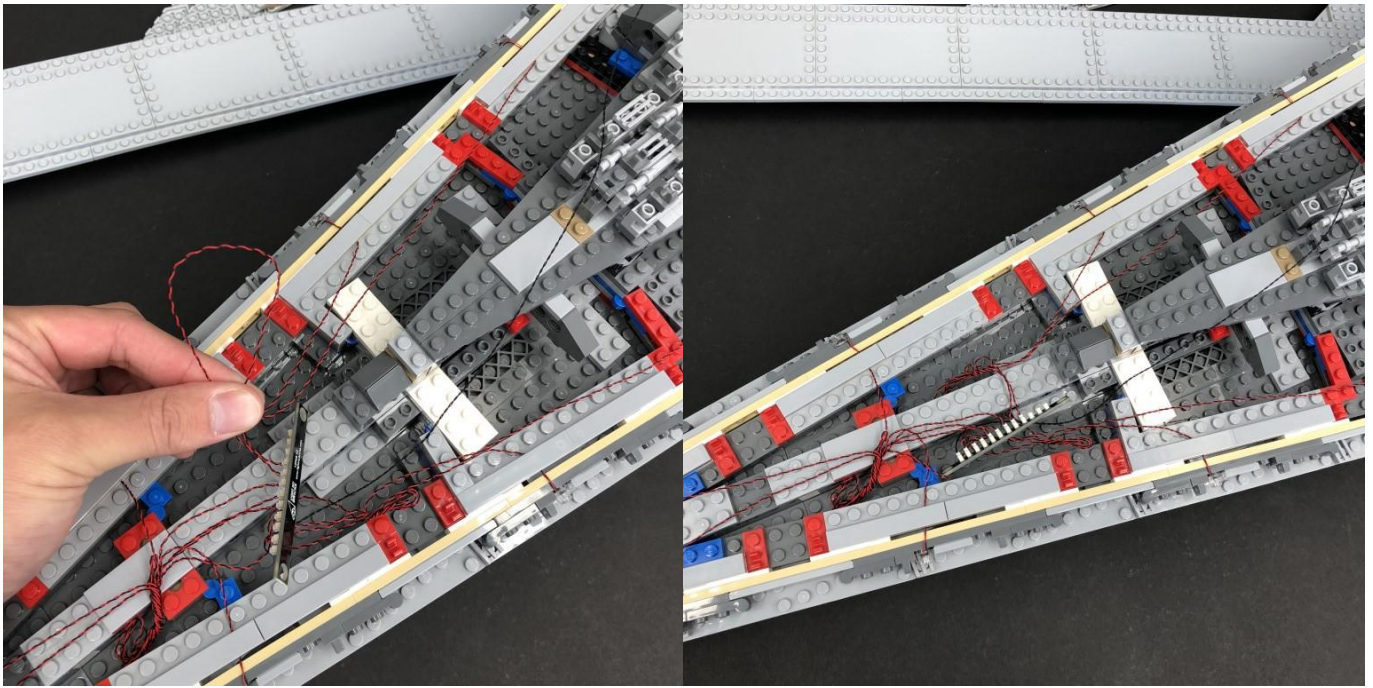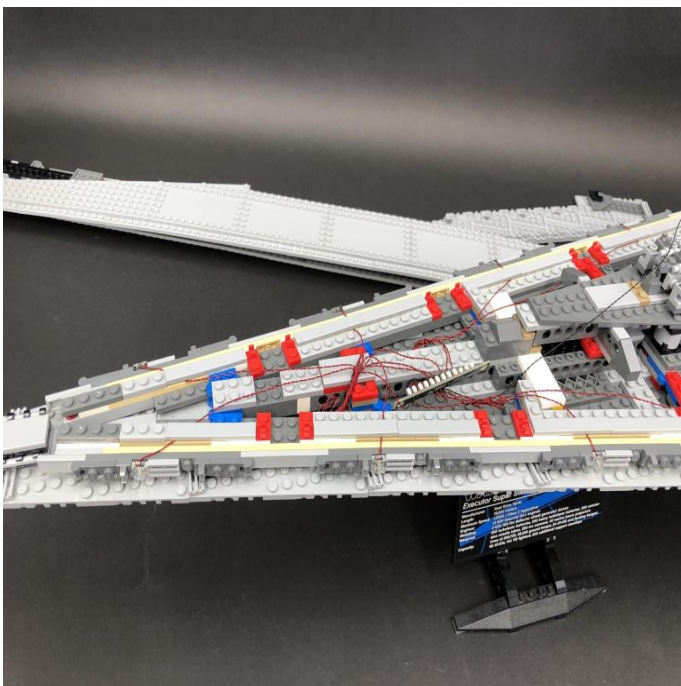
147
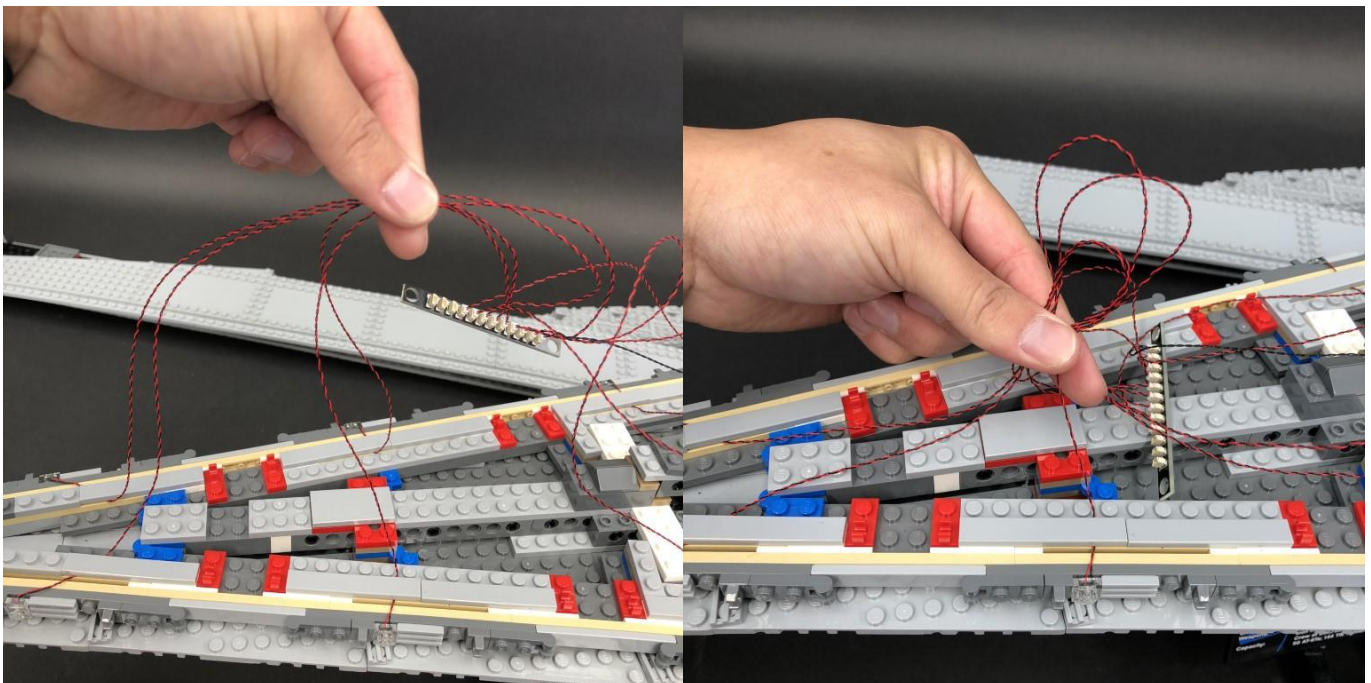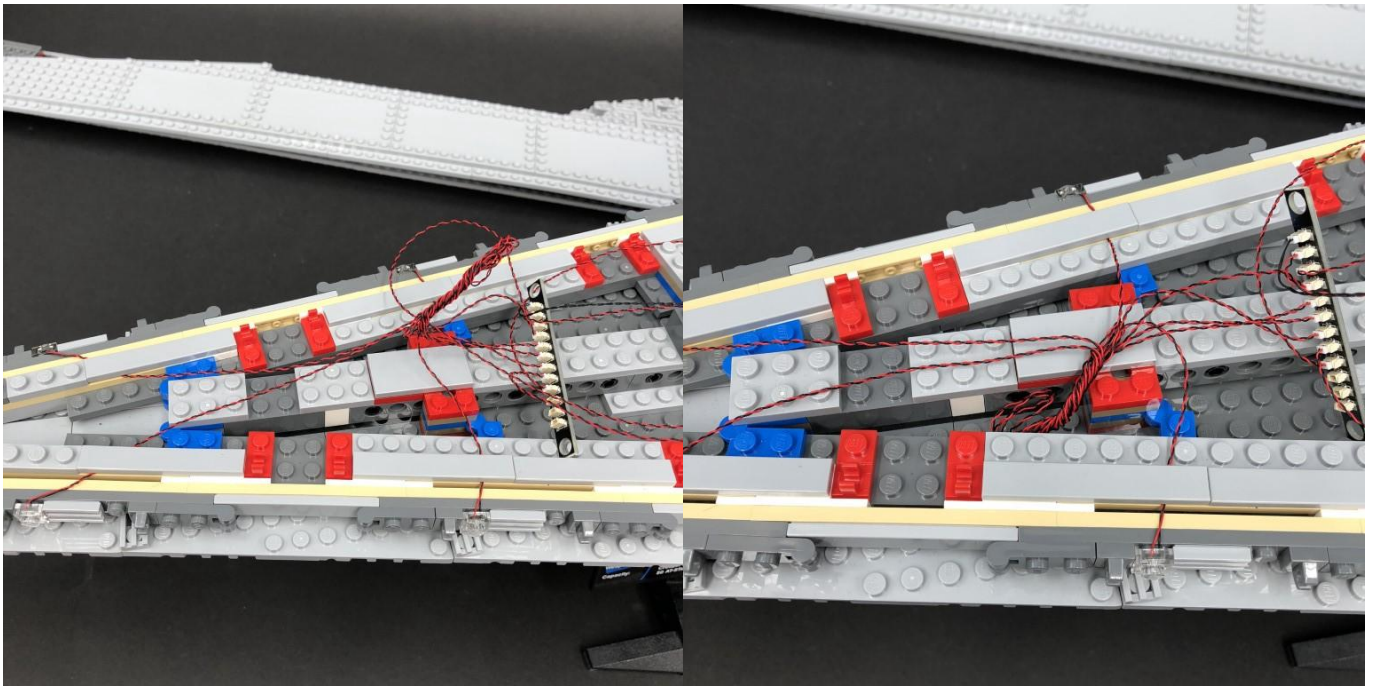
149.Take the next two cables along the each side and then fold and twist them together before tucking them into the spaces below.
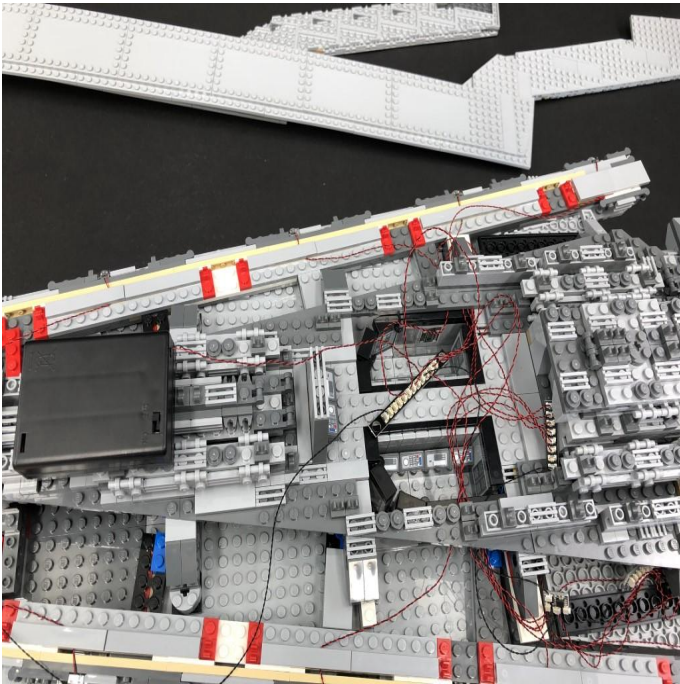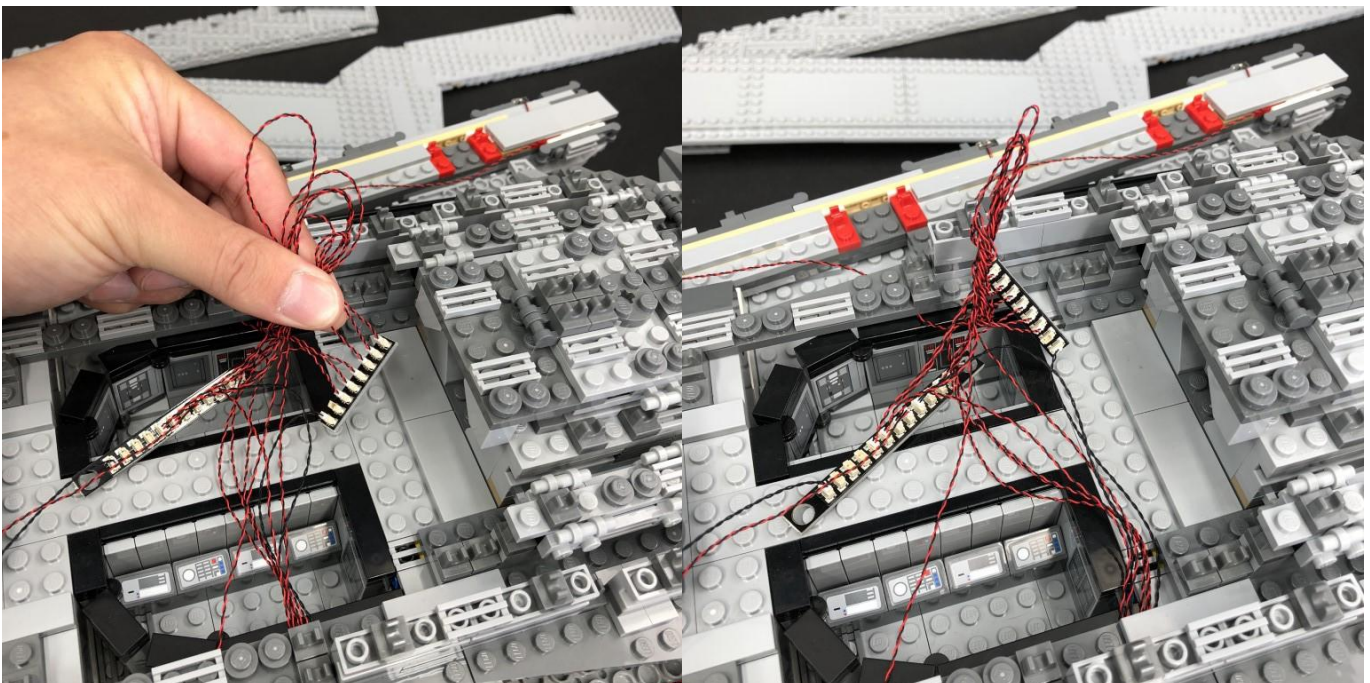
150

151

152.Tidy up excess cables inside the control room area by grouping them together, folding and twisting them around each other the same way we did for the cables toward the front of the ship.
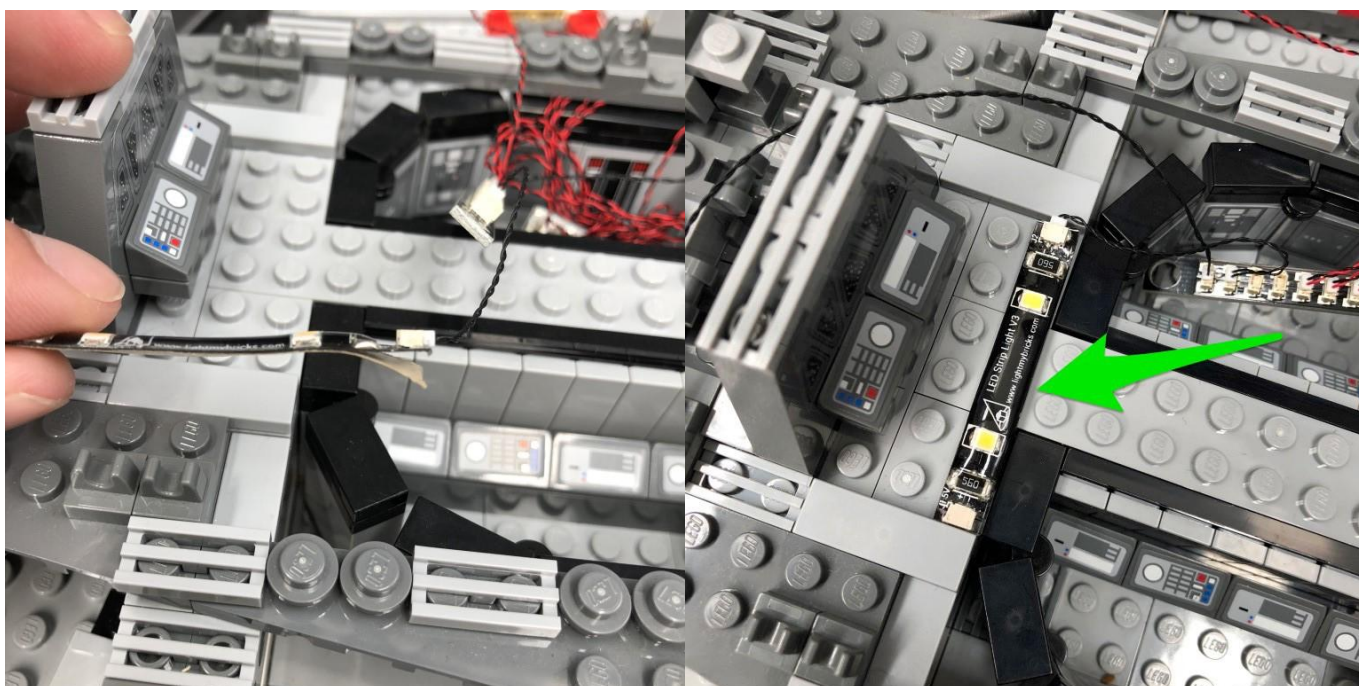

153

154.Take a White Strip Light and connect a 5cm Connecting Cable to one side. Connect the other end of the connecting cable to a spare port on the 12-port expansion board in the control room area.
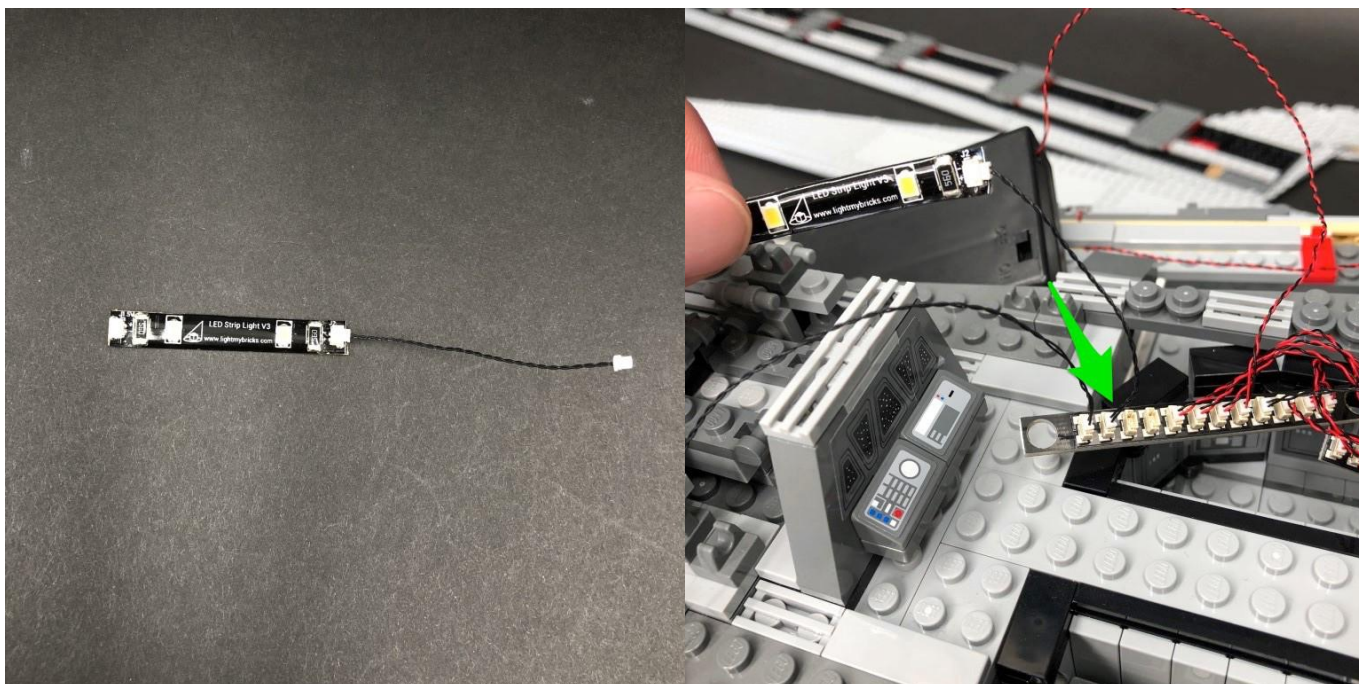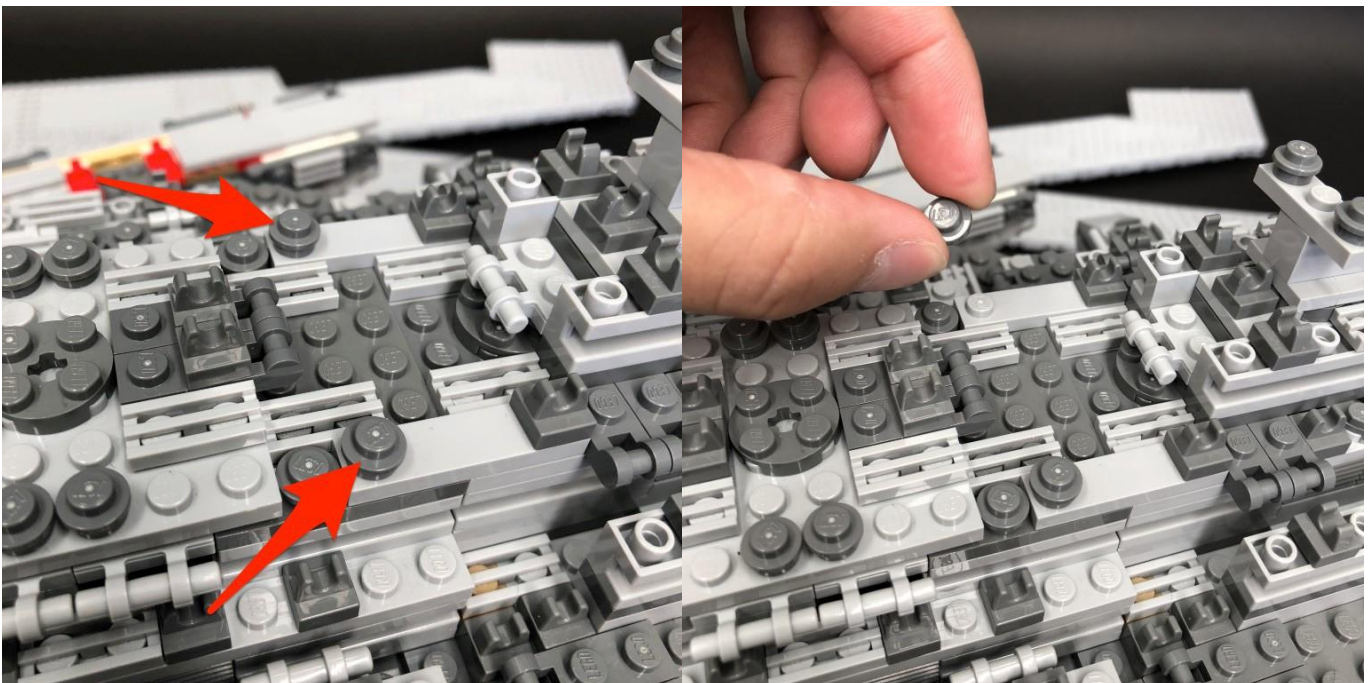

155.Using the strip light's adhesive backing, stick the strip light down on the the floor of the control room toward the front area as per below
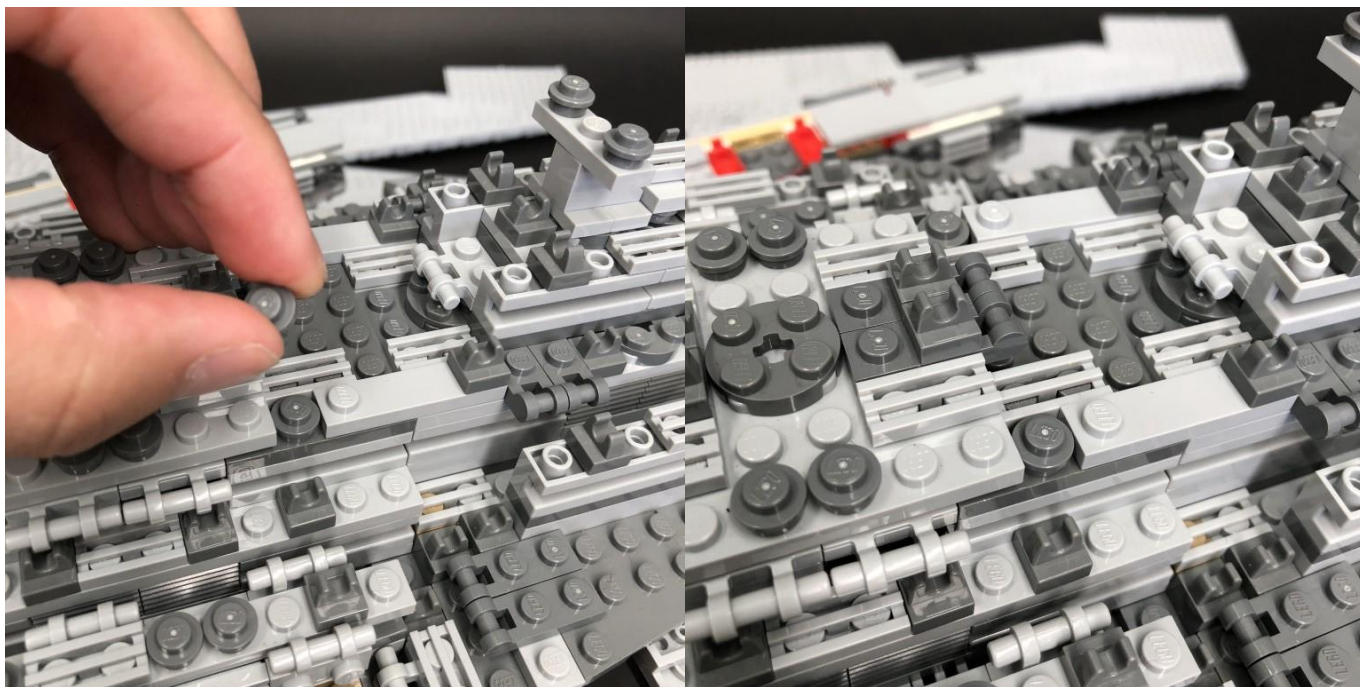
156.We will now install some lights to the top of the star destroyer. First disconnect the following two dark grey round plates from the top toward the back of the ship.
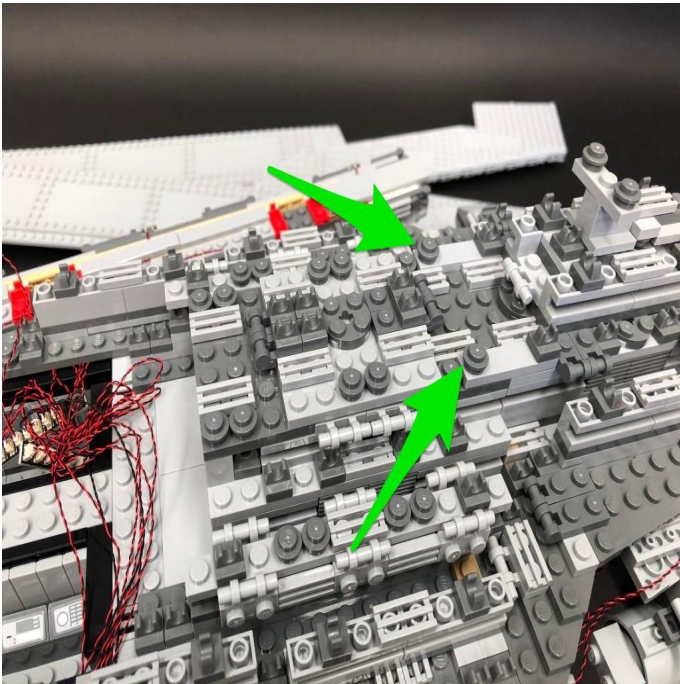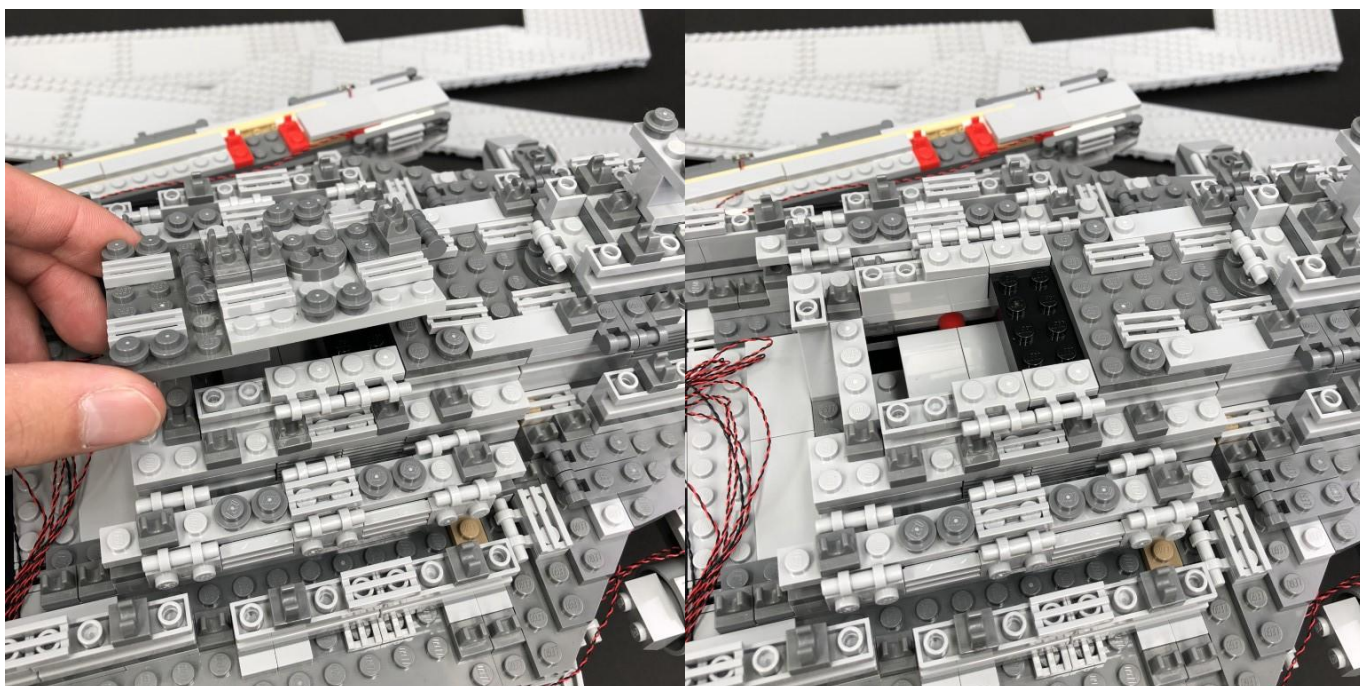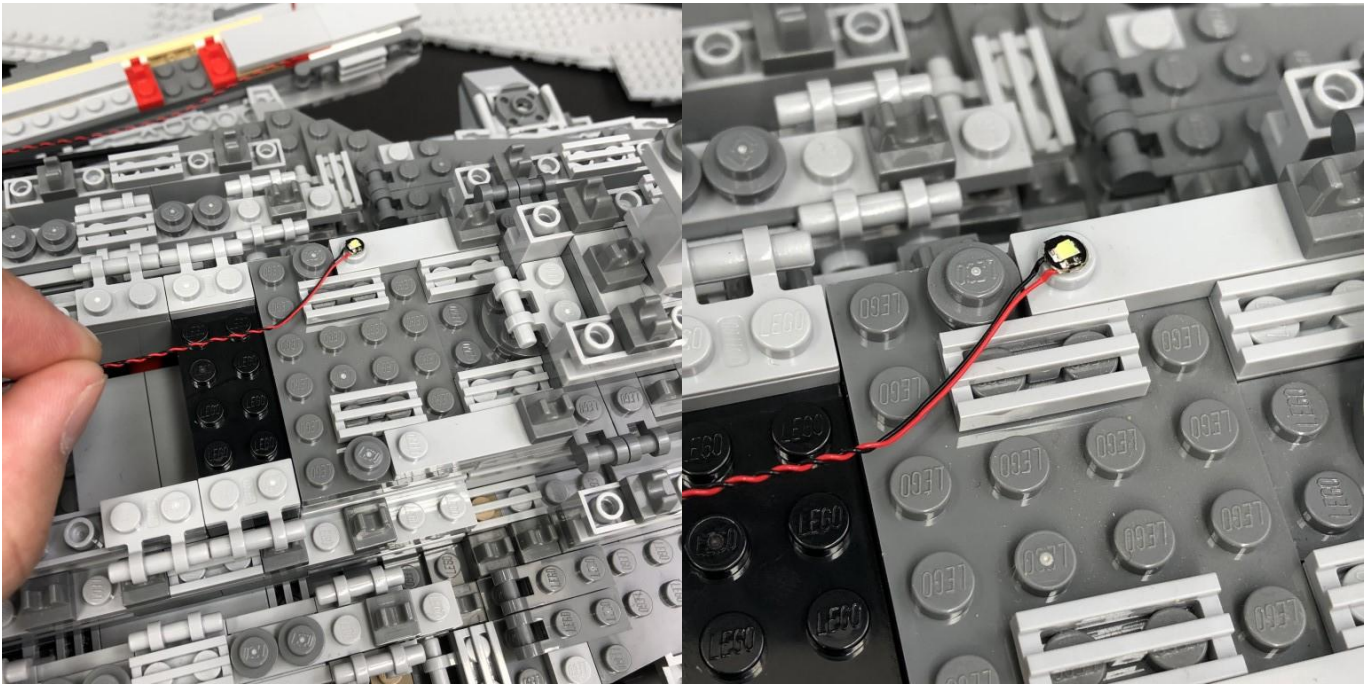

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159.Disconnect the section underneath as per below.

160.Take a White 30cm Dot Light and with the cable facing toward the control room, place it over the left stud where we disconnected one of the dark grey round plates from.

**161.Secure it in place by connecting a provided   Trans Clear Round Plate 1x1 over the top, then hide the cable underneath the   grill tile as shown below.**
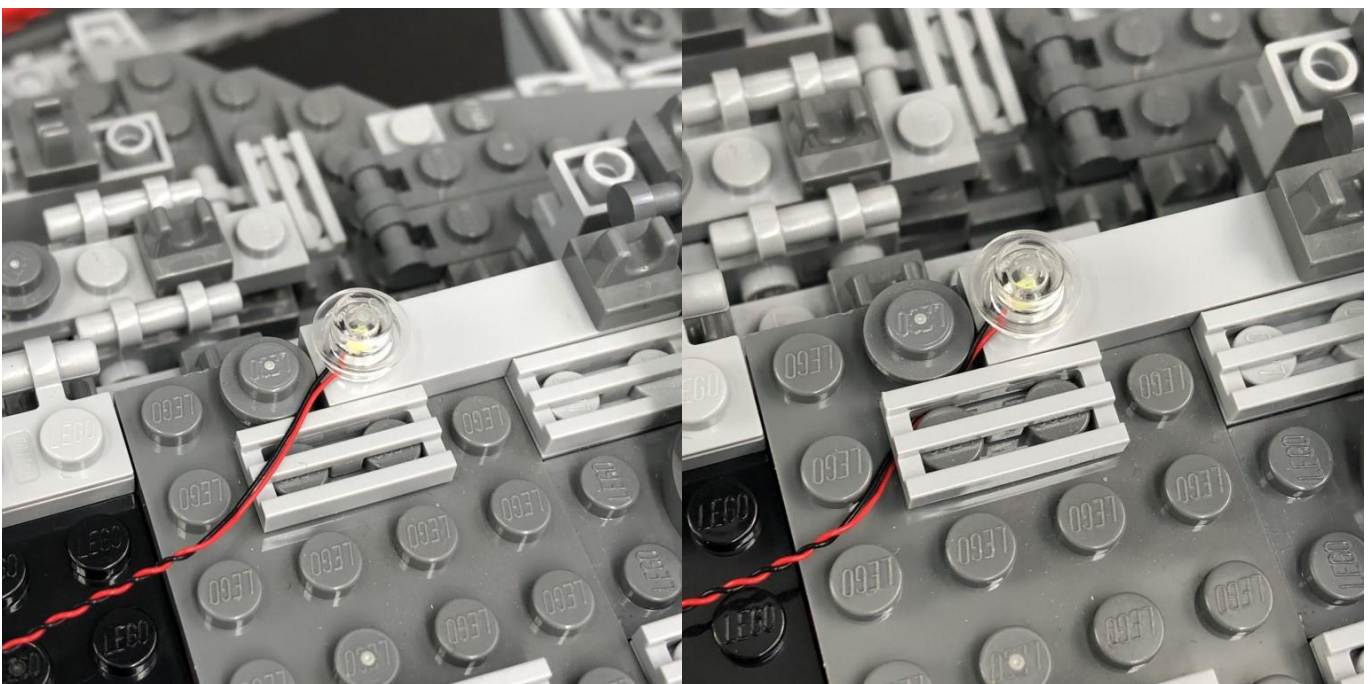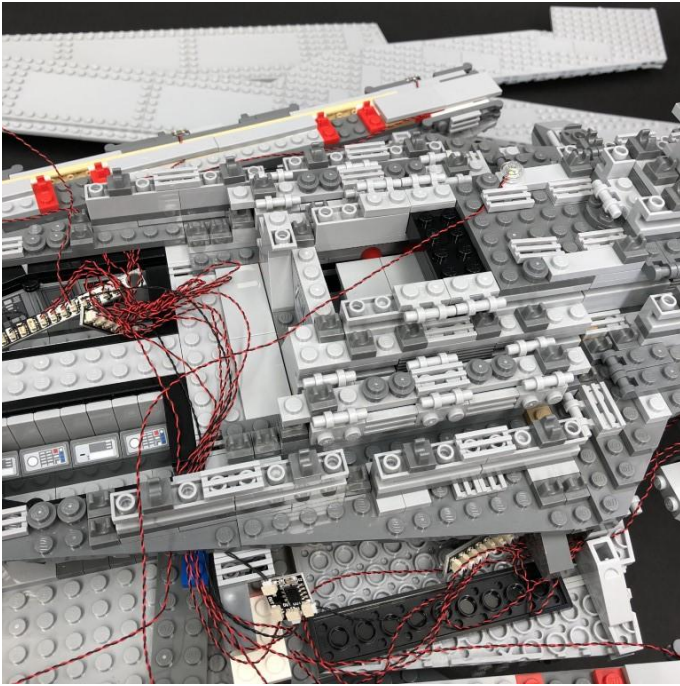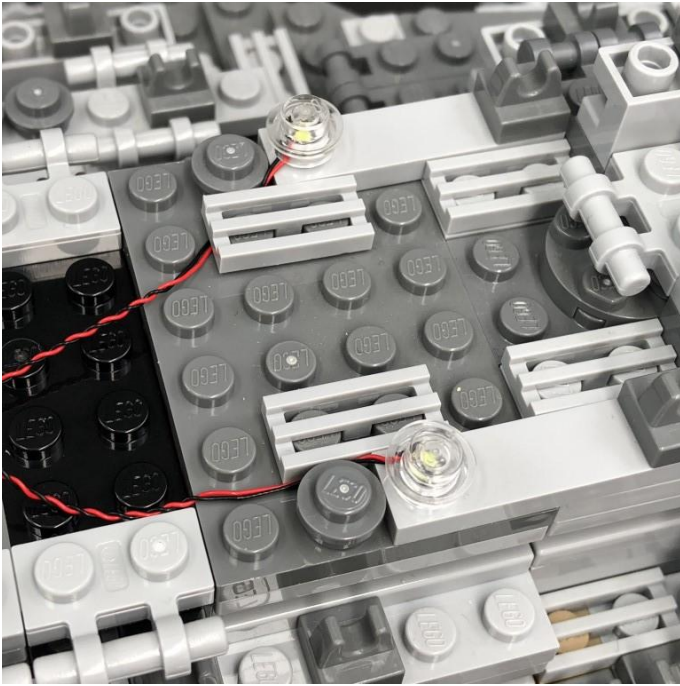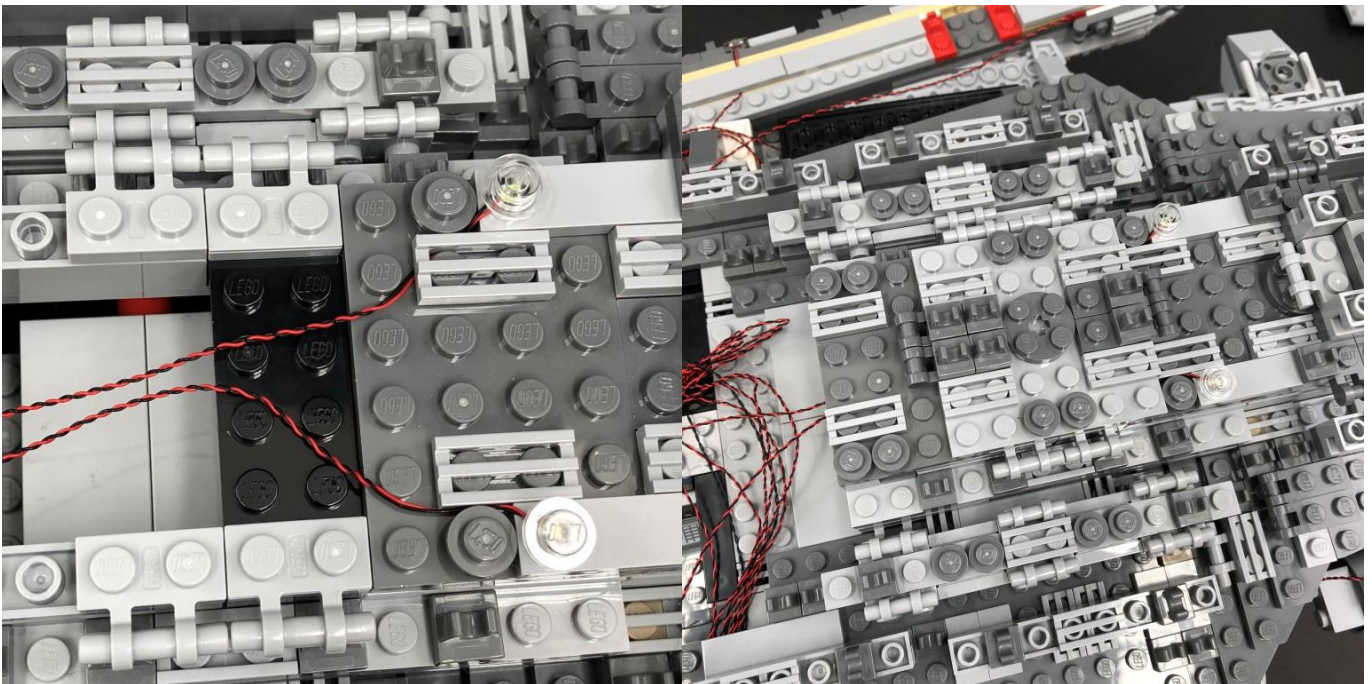
163.Install another White 30cm Dot Light to the right stud where we removed the other dark grey round plate from. Secure it in place using another provided   Trans Clear Round Plate 1x1 then hide the cable underneath the grill tile.
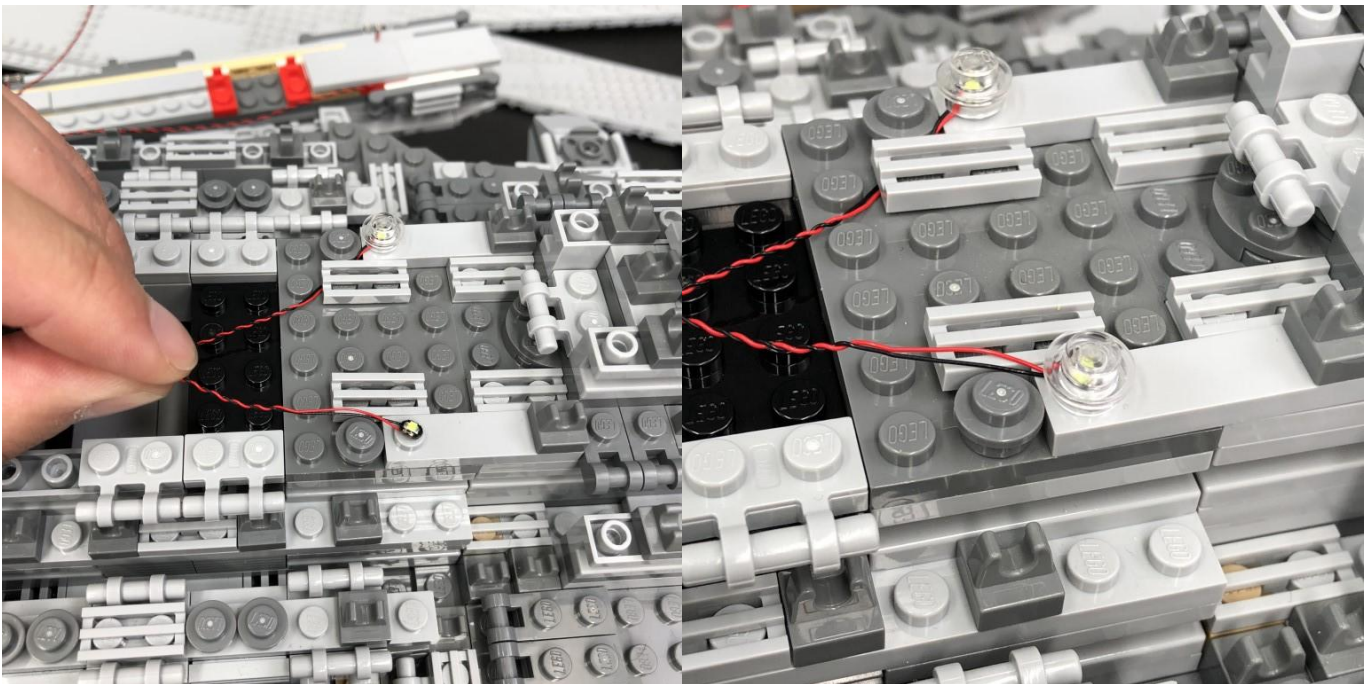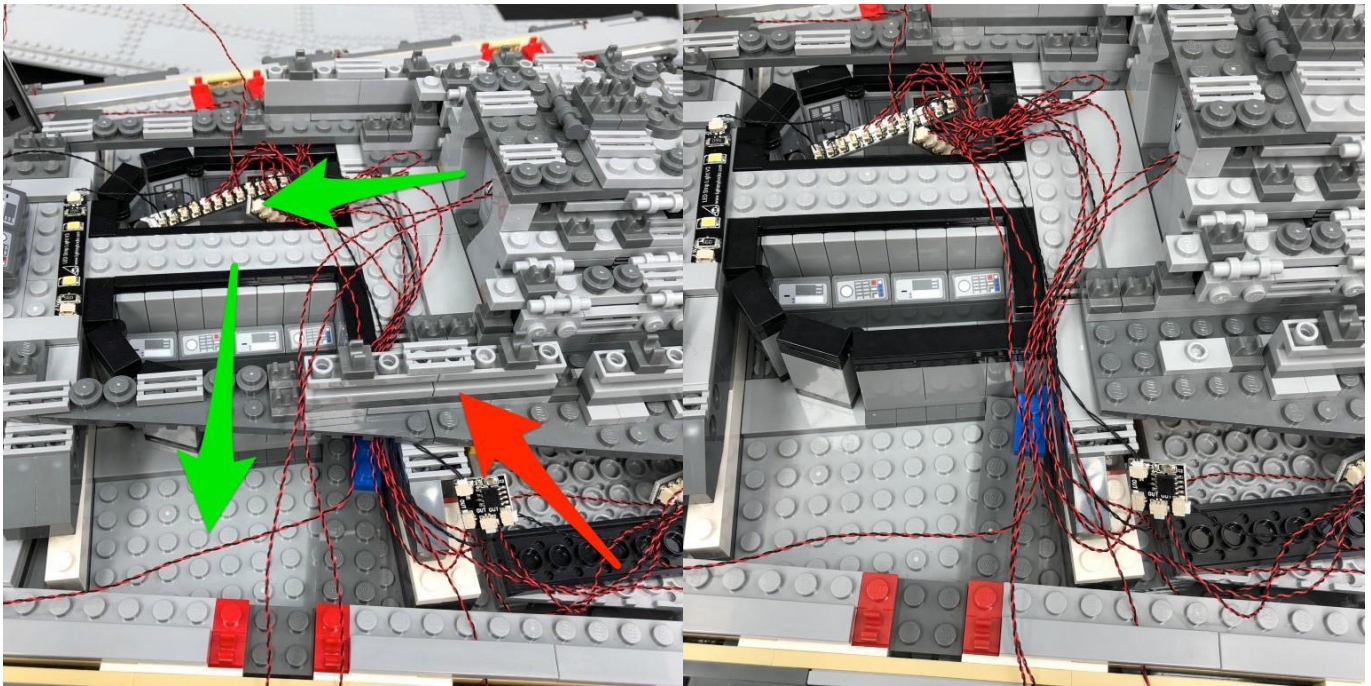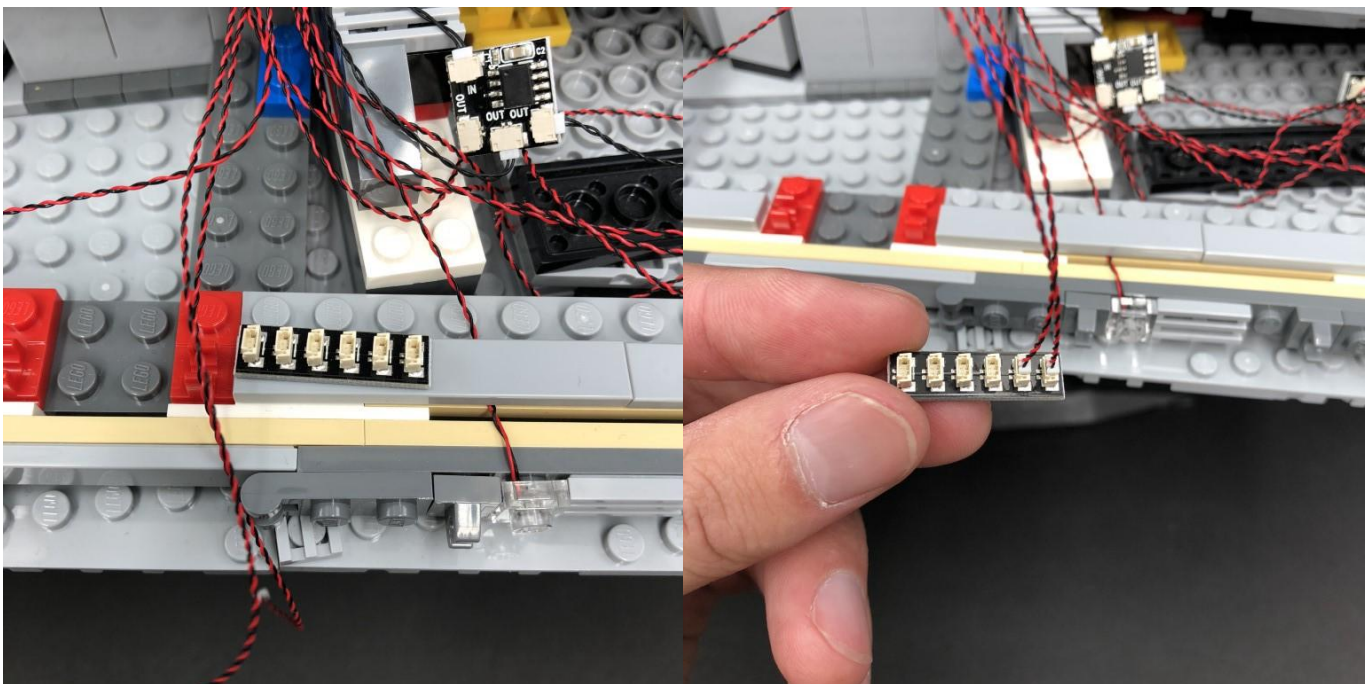
165.Lay the two cables down in between studs before reconnecting the section we removed earlier.

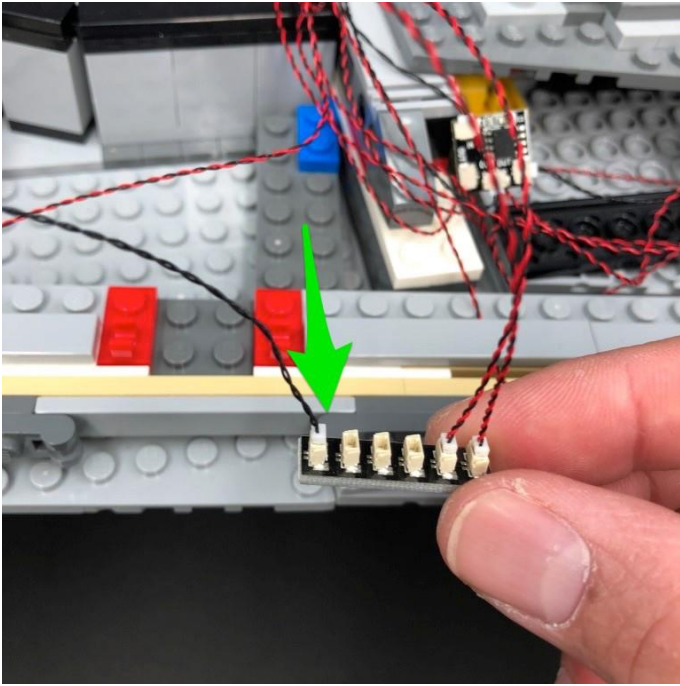**166.Bring both cables down the left side of the star destroyer then remove the following side sections again.**
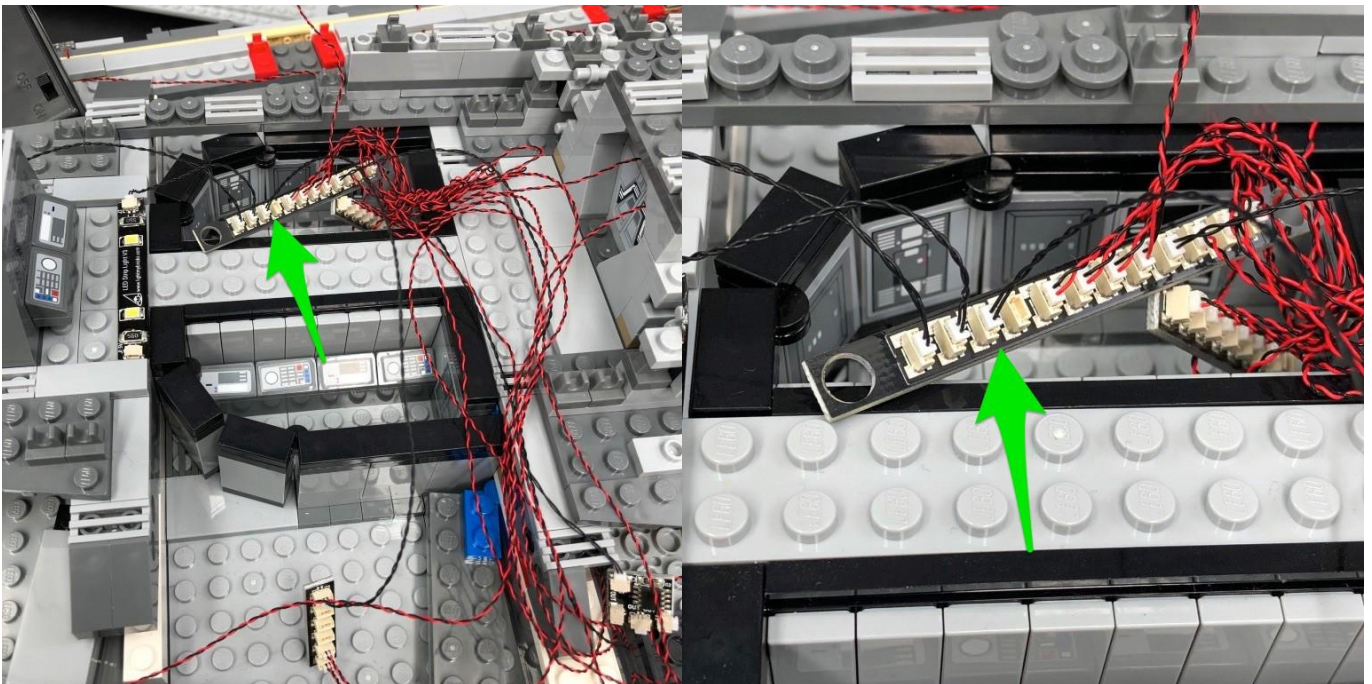

167.Connect the two cables to a 6-Port Expansion Board. Take another 15cm Connecting Cable and connect it to the far end port on the expansion board.
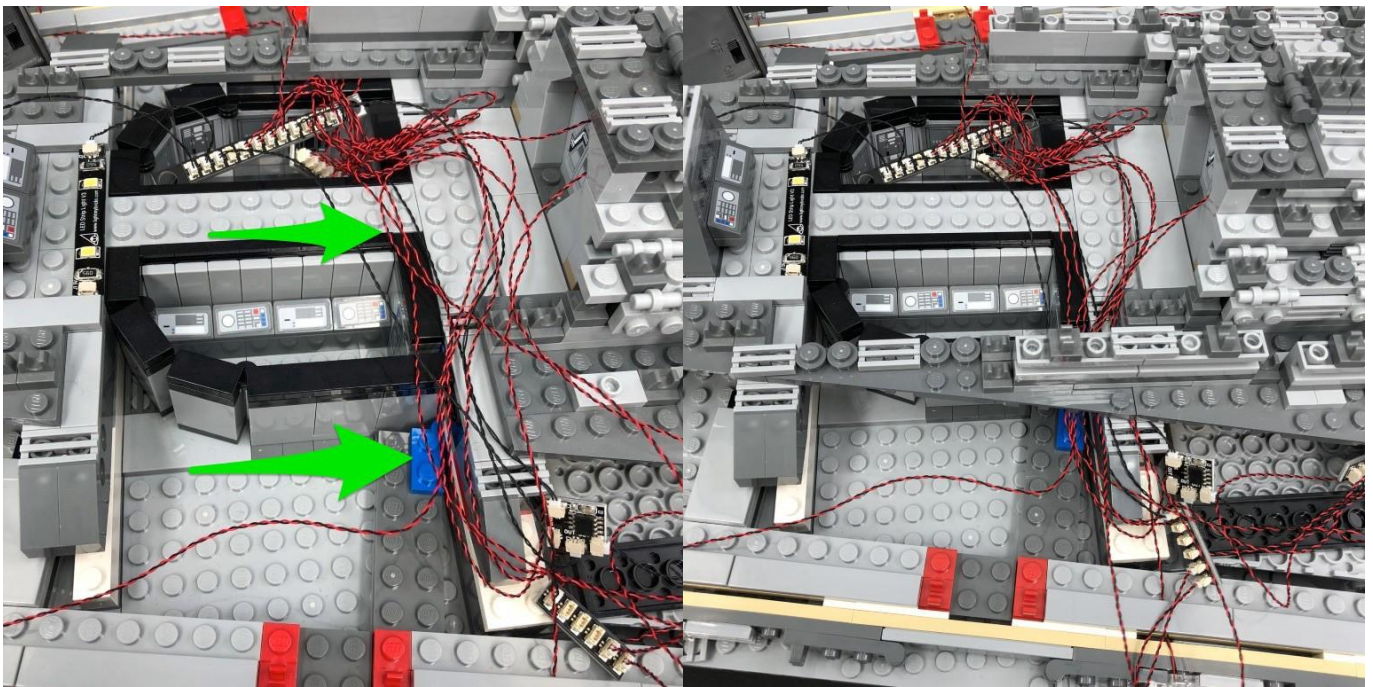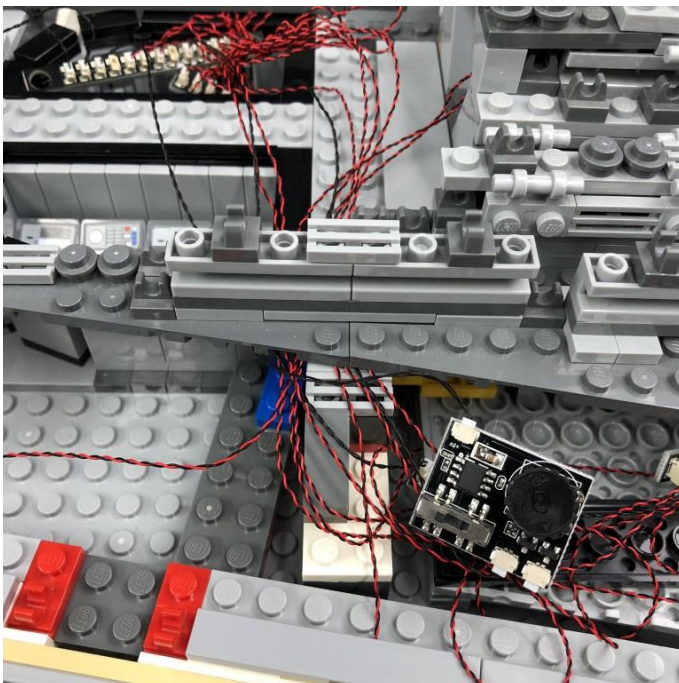
169.Connect the other end of the 15cm connecting cable to a spare port on the 12-Port Expansion Board in the control room area.

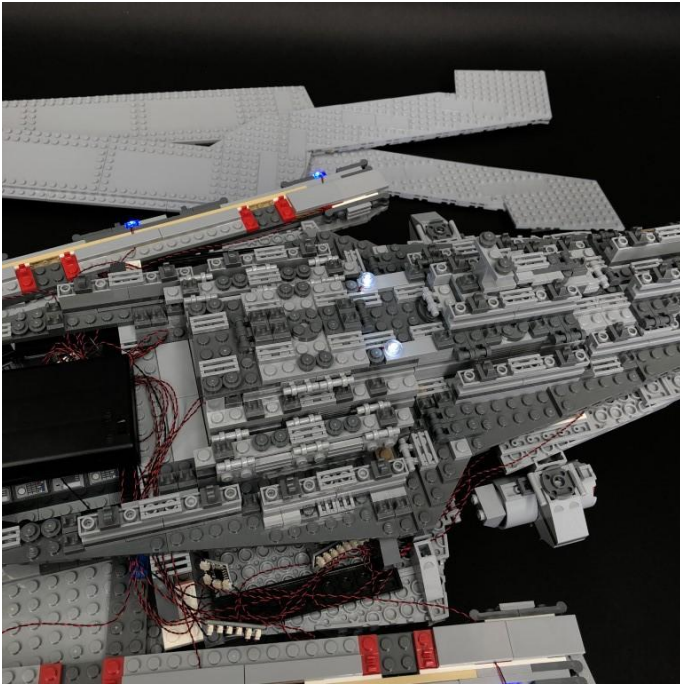**170.Lay all cables neatly along the back side of the control room (right side) and then reconnect sections we removed earlier over the top.**
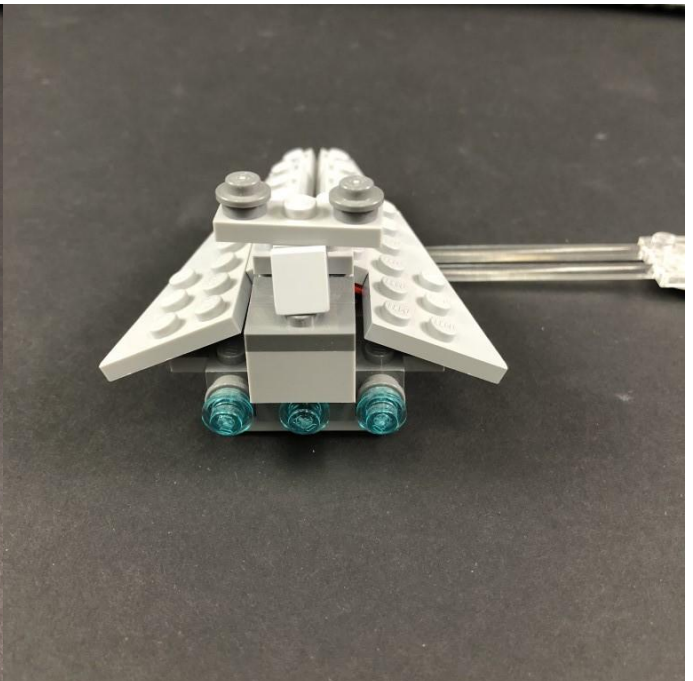

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172.Turn the battery pack ON to ensure all lights are working OK.

173.We will now install lights to the back of the small star destroyer. Take this section and turn it over to the back. Flip it over to allow us to disconnect and disassemble the following pieces.
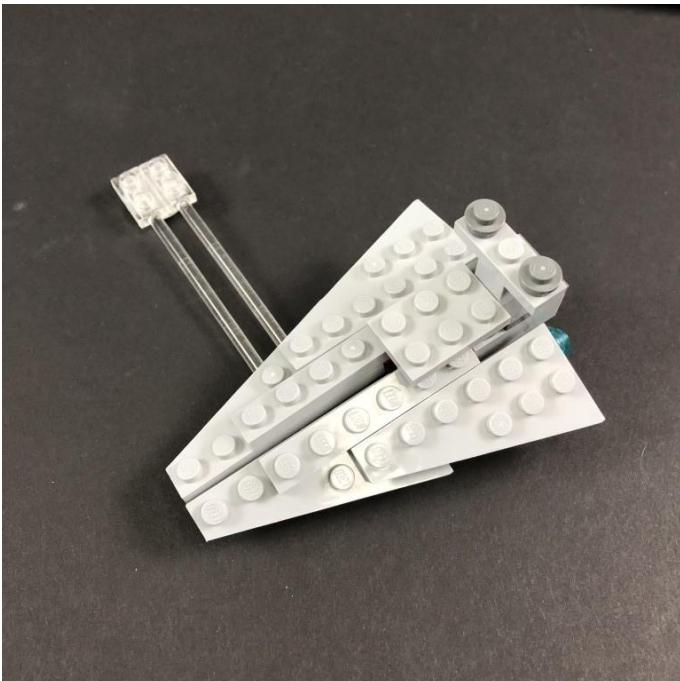
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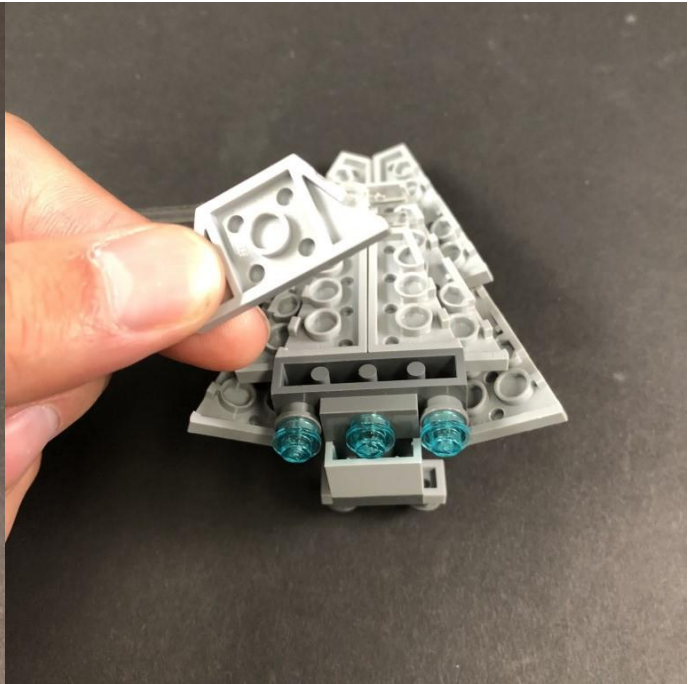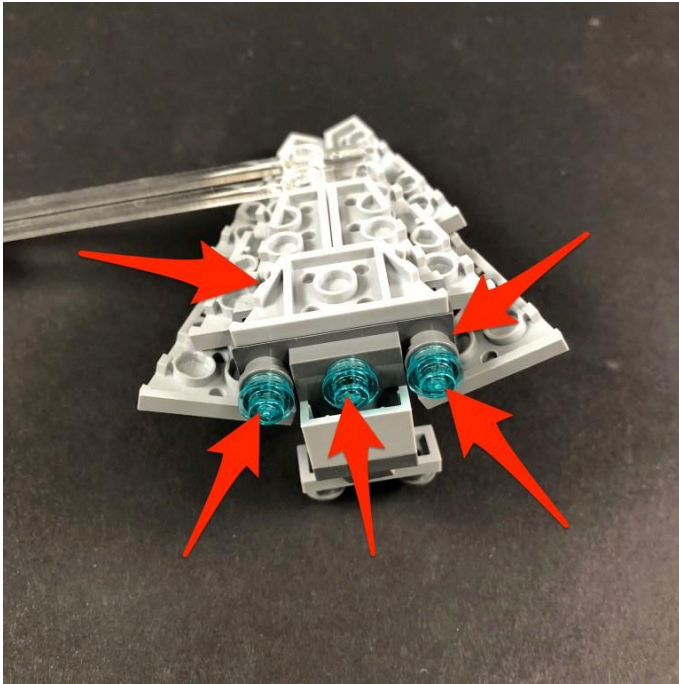
175
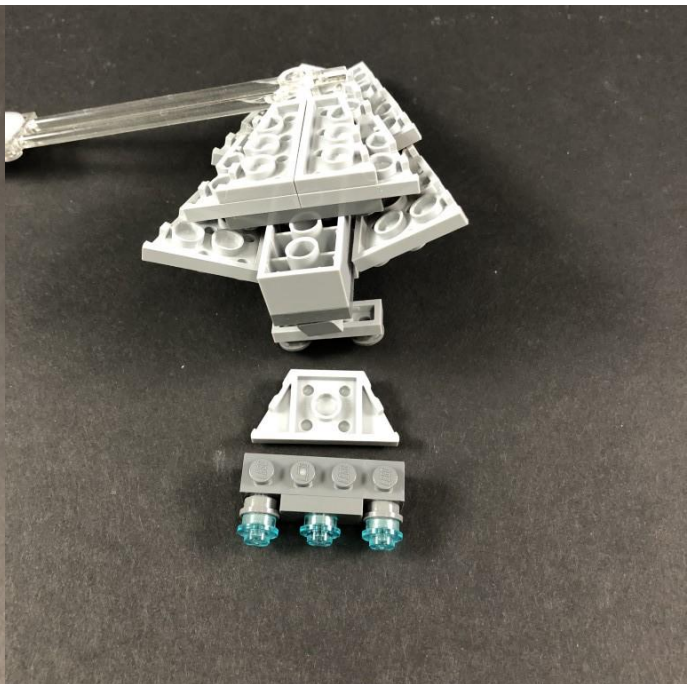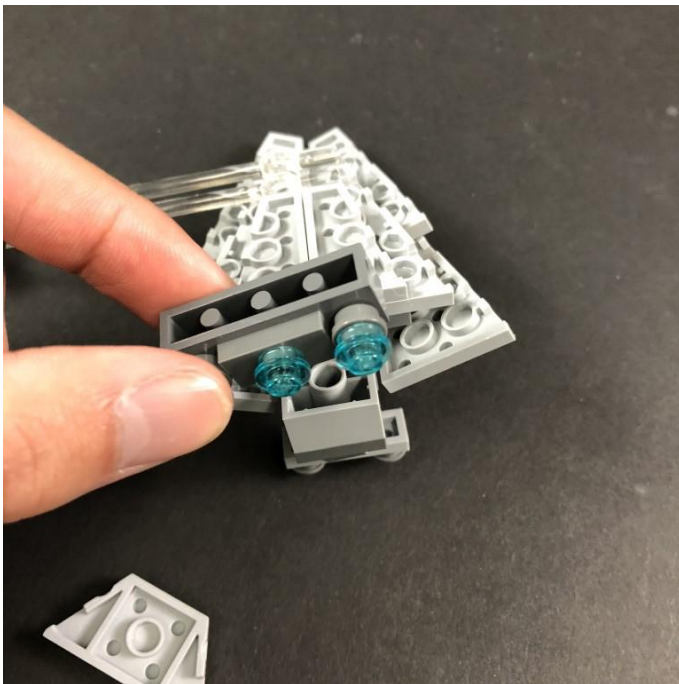
177.Take a White 30cm Dot Light and place it over the top of one of the round plates. Secure it in place by reconnecting a trans light blue plate over the top.
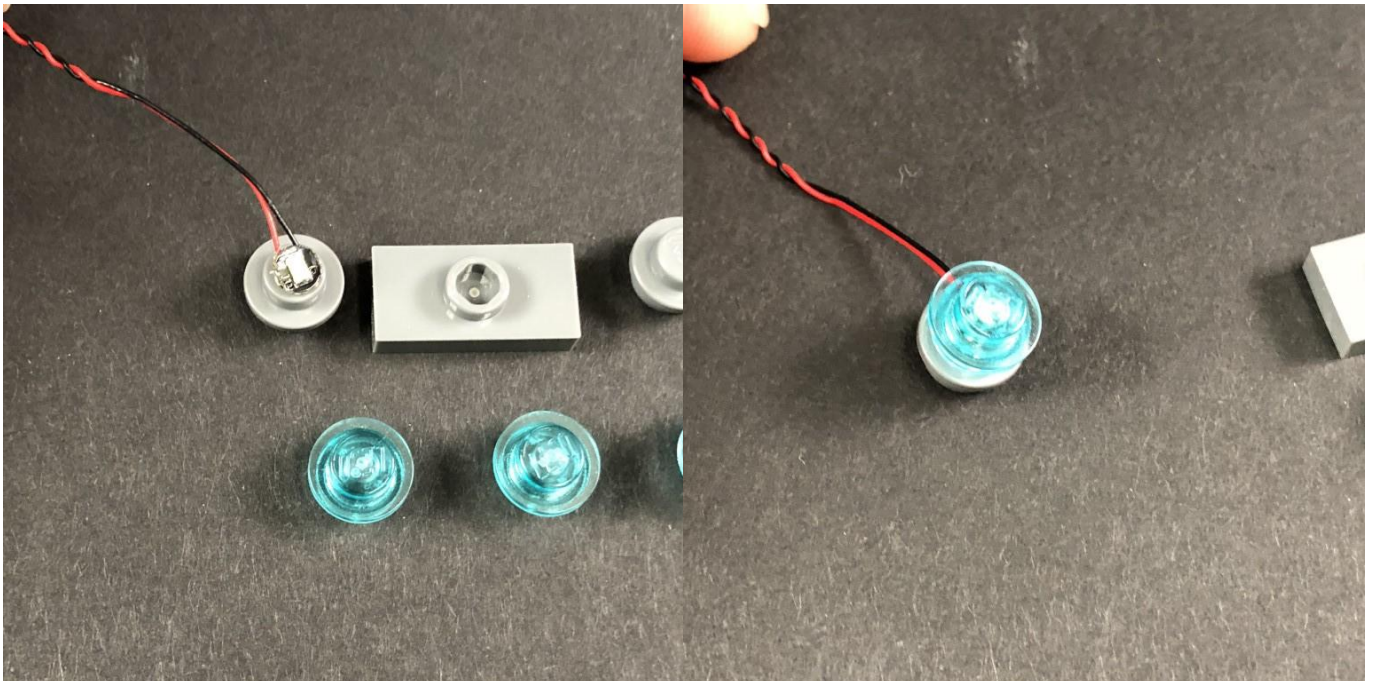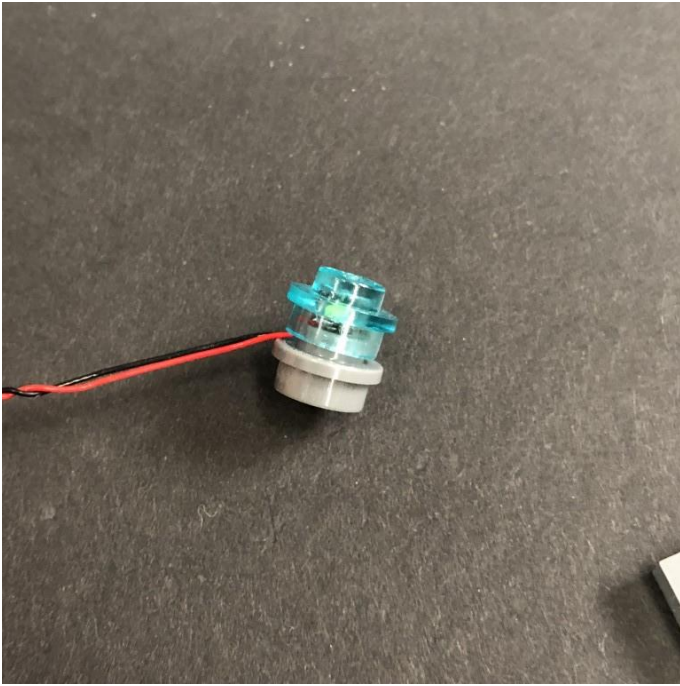
179.Take another White 30cm Dot Light and place it over the top of the tile with stud. Secure it in place by reconnecting a trans light blue plate over the top.
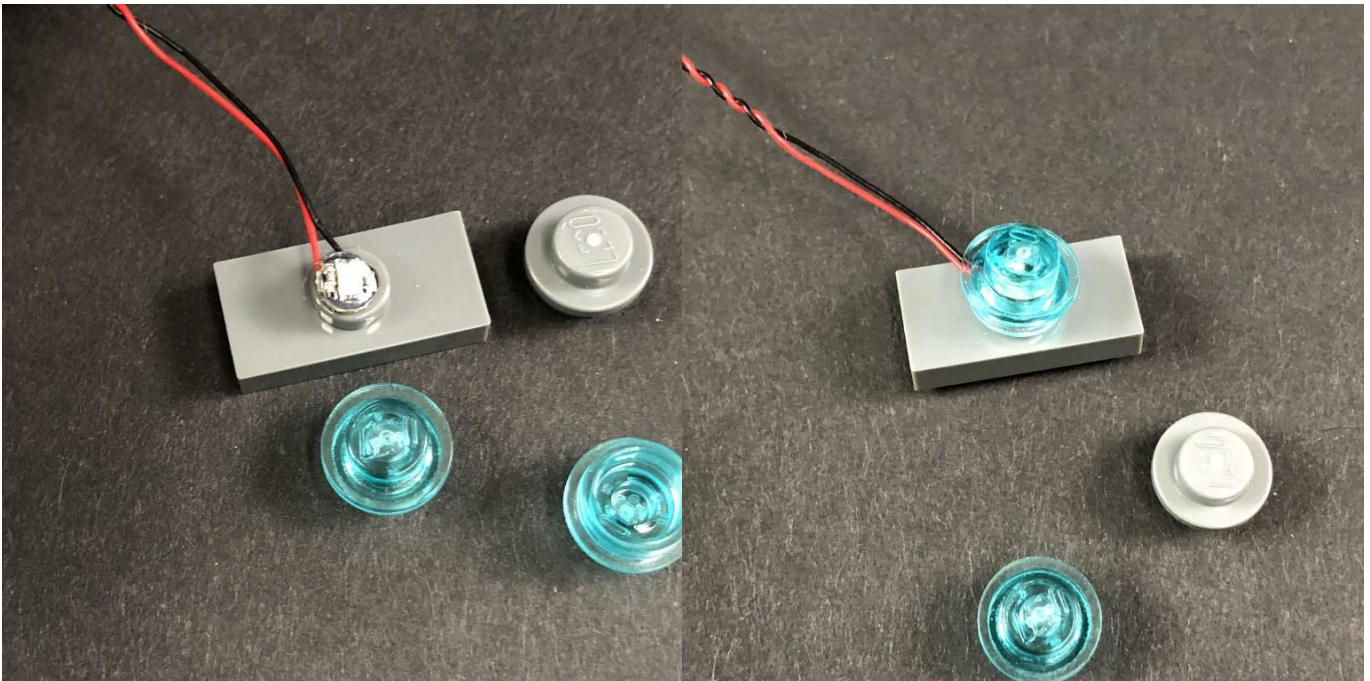
180.Install the remaining White 30cm Dot Light to the other dark grey round plate and secure it in place by reconnecting the trans light blue plate over the top
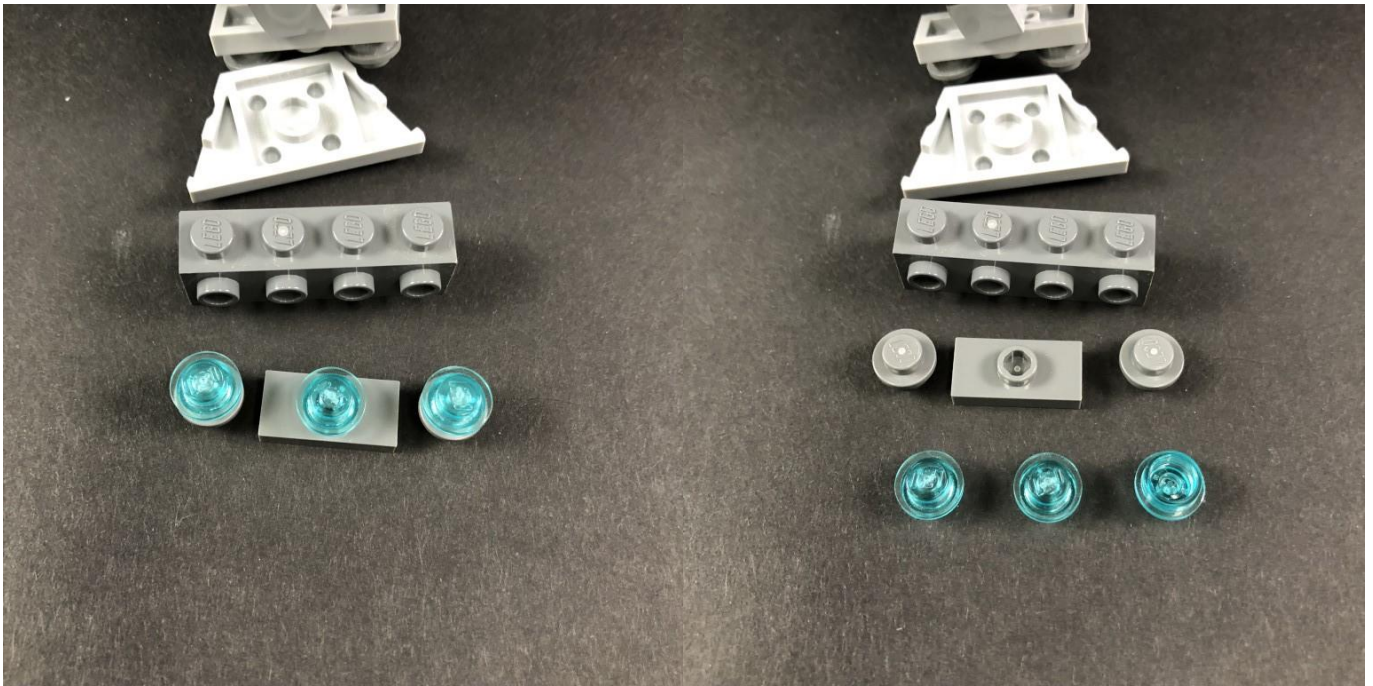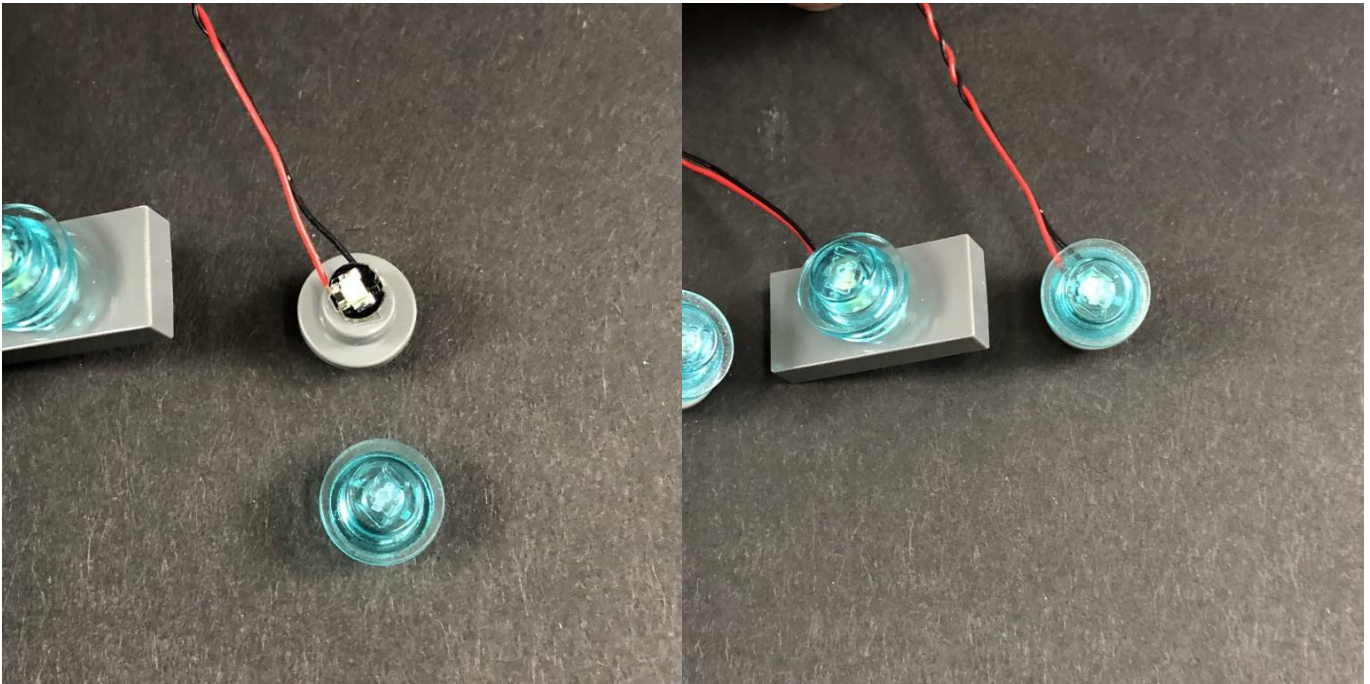

181.Reconnect the three pieces back to the dark grey 1x4 brick ensuring all cables are facing down.
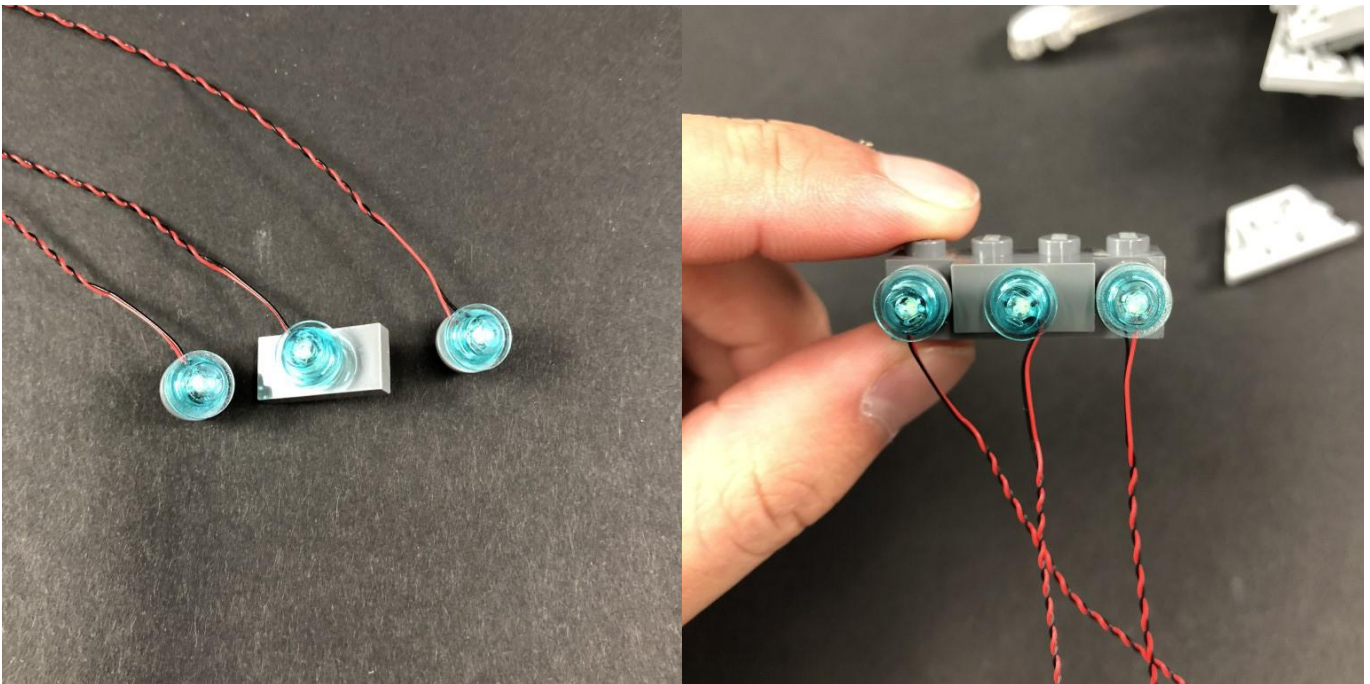
182.Reconnect the 1x4 brick to the small star destroyer, then reconnect the remaining piece ensuring the cables are laid in between studs.
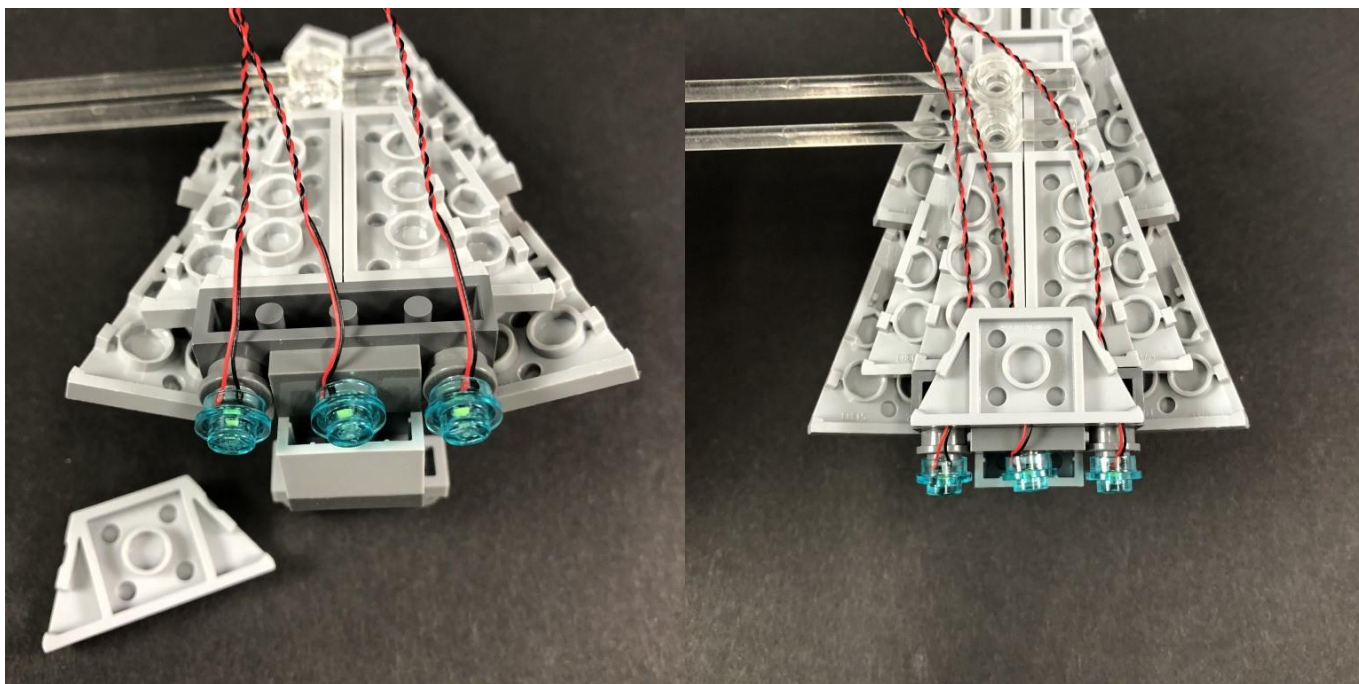
183.Group the three cables together close to the ship and then twist and wind them together so that they come together. Continue to twist/wind the cables around each other all the way to the top so that they all form one larger cable.
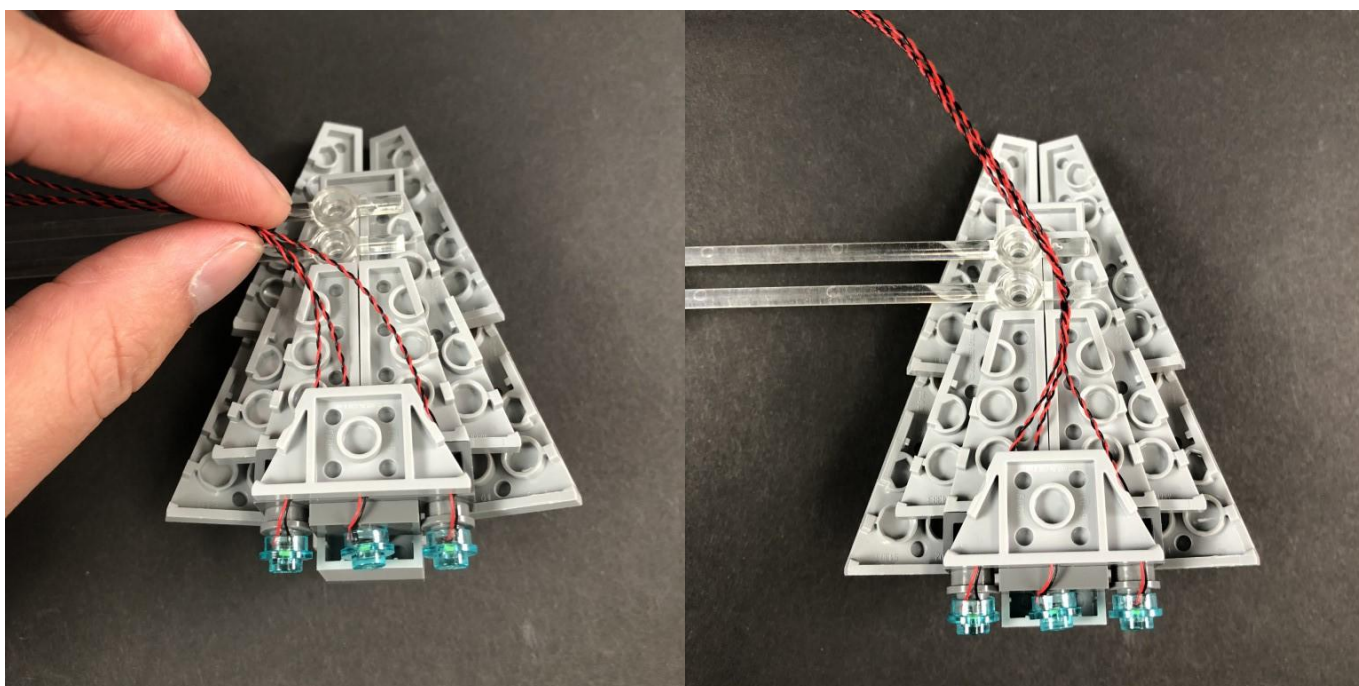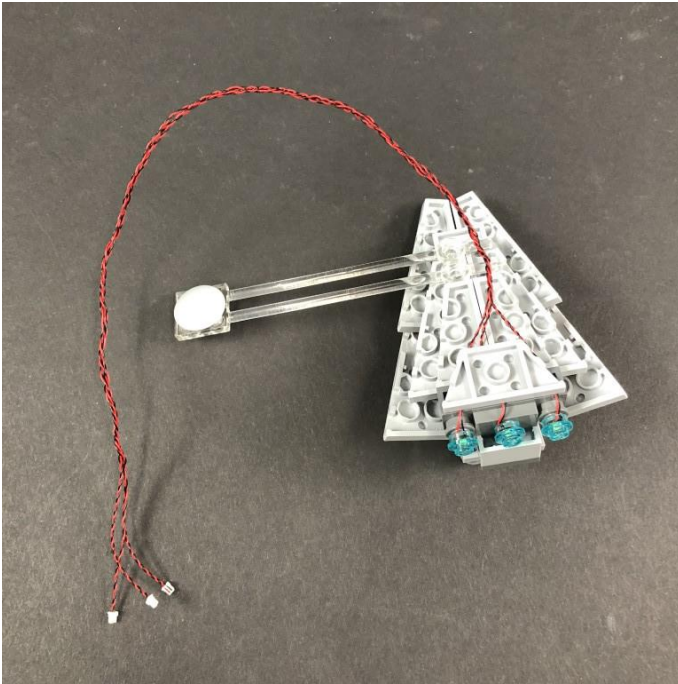
185.Thread the cables in between the two trans clear bars and then pull the cable up all the way through. Turn the ship back over and then reconnect it to the left side of the super star destroyer toward the middle.
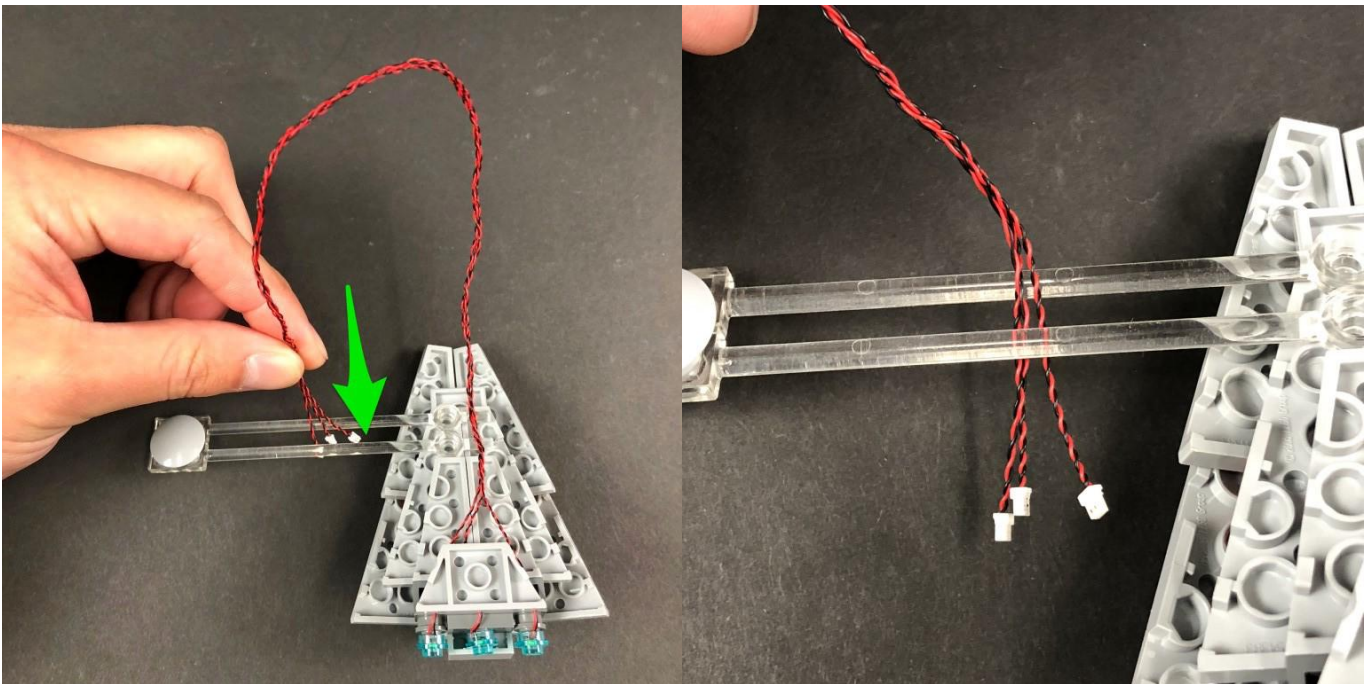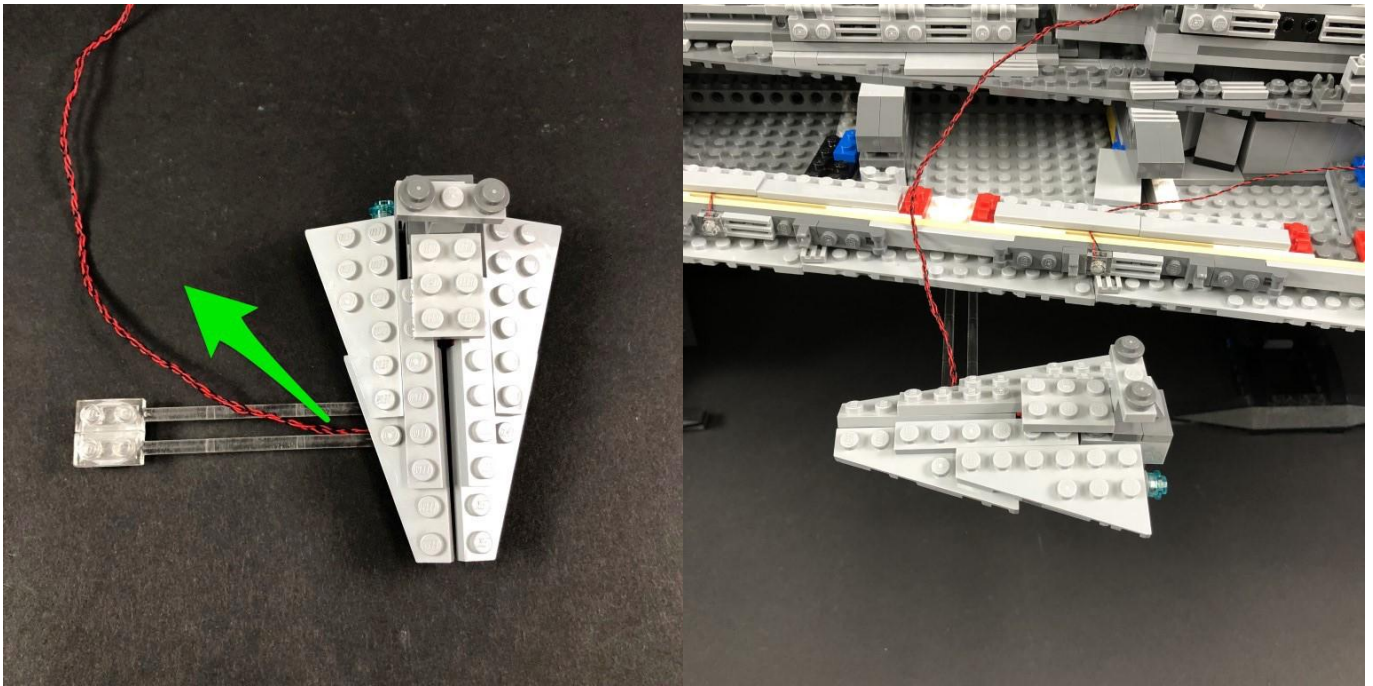
187.Bring the cables over toward the back and then connect all three to the 6-port Expansion Board from step 35.
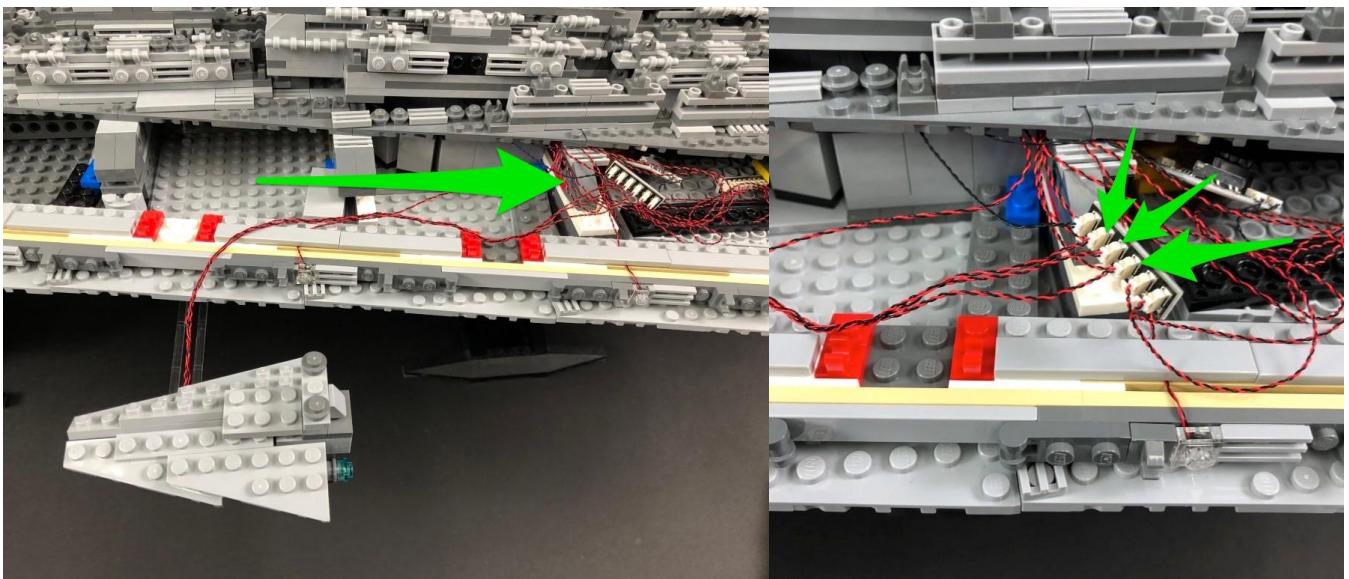
188.Turn the battery pack ON to verify all lights are working OK

189.Take the roof of the control room area we removed earlier and then push the AA battery pack into the space underneath ensuring the ON/OFF switch is accessible. Neaten up cables underneath before securely reconnecting the roof back on top of the control room.
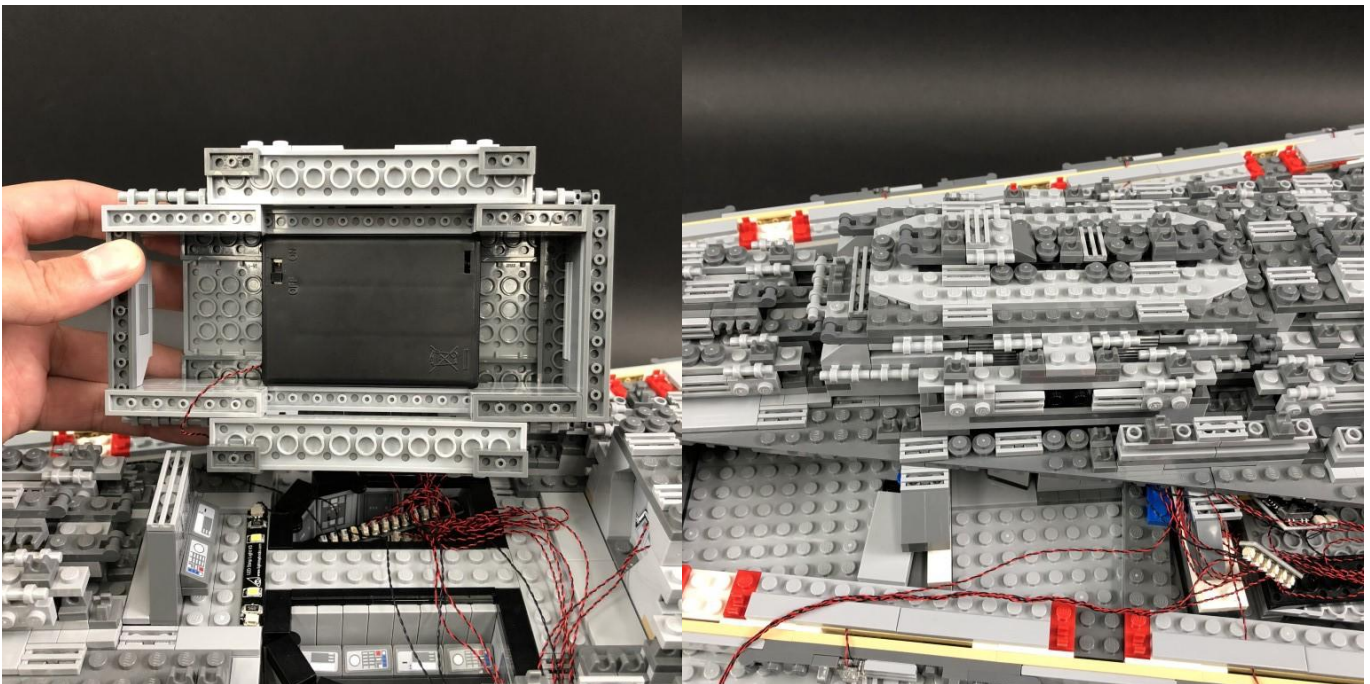
190.We will now install strip lights along each roof section of the ship. First take the left roof section and then turn it over so we can access underneath.

191.Take 4x Blue Strip Lights and stick three of them to the base of 3x Provided plate 1x6.
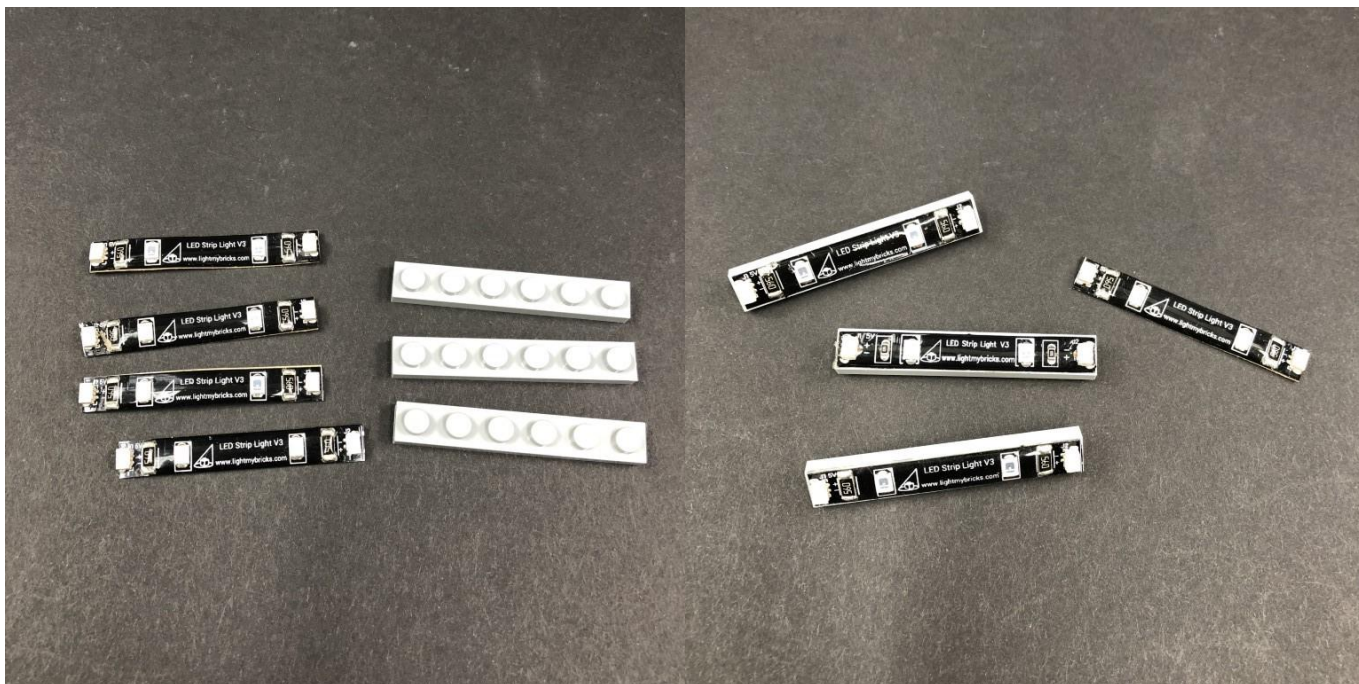
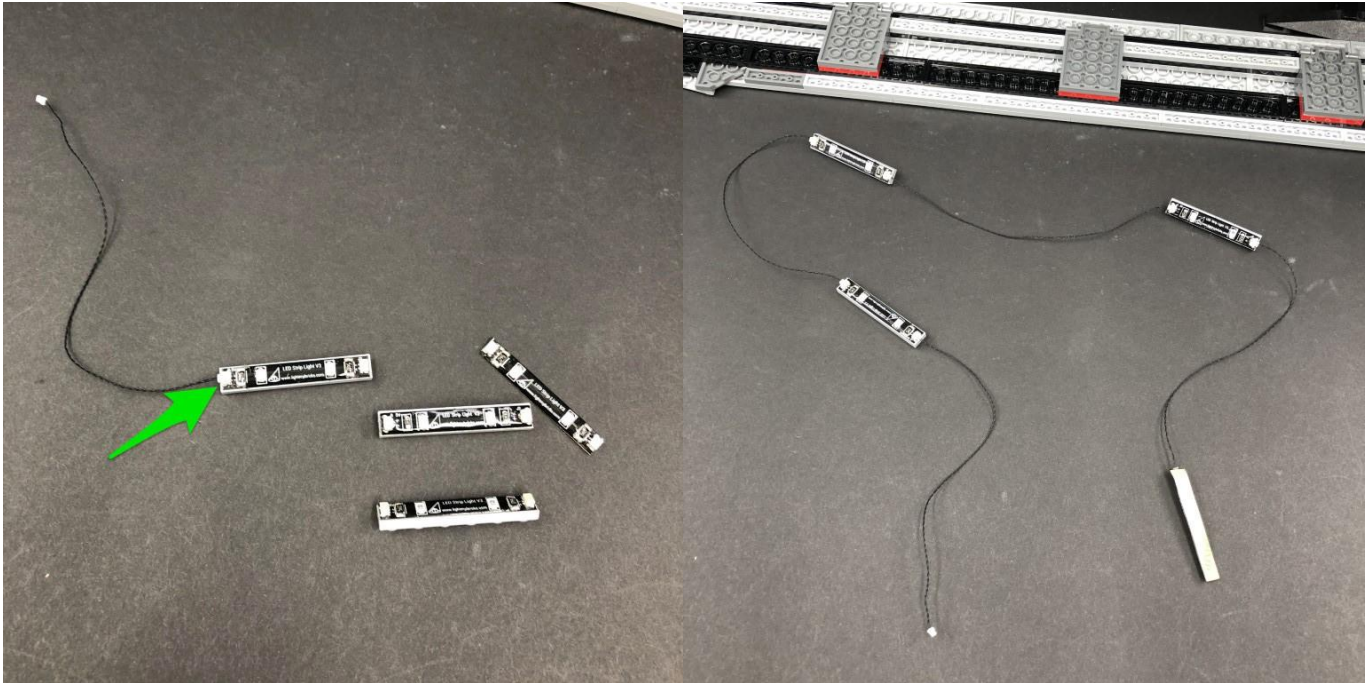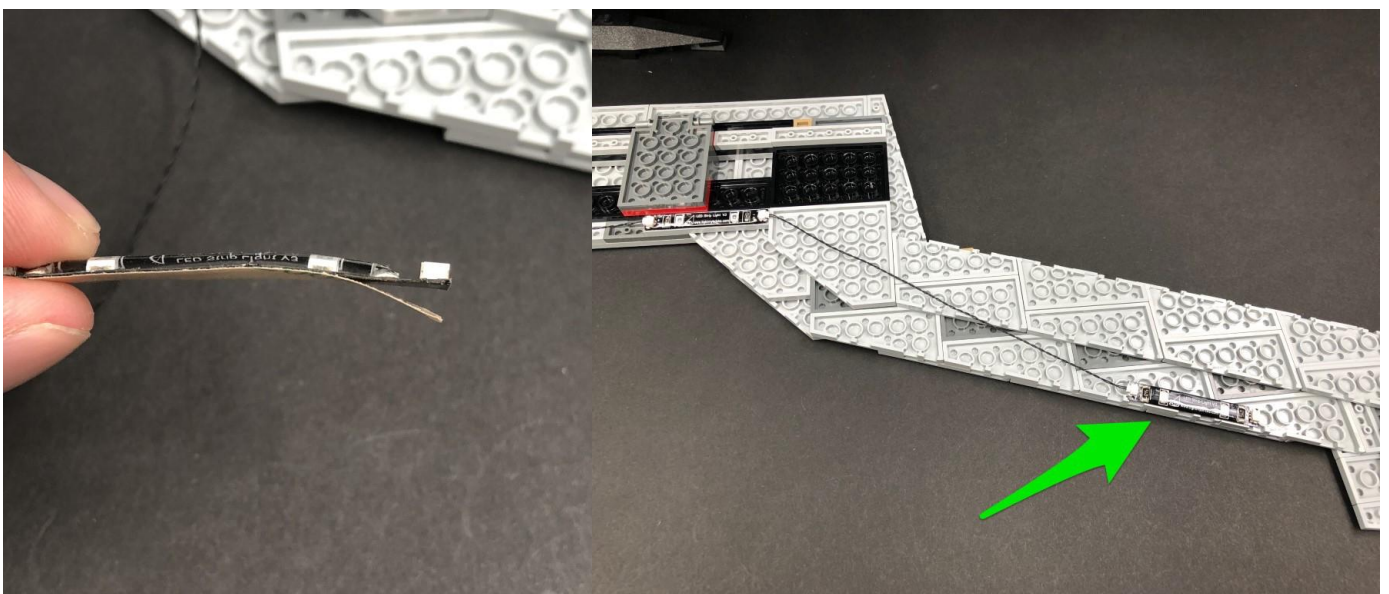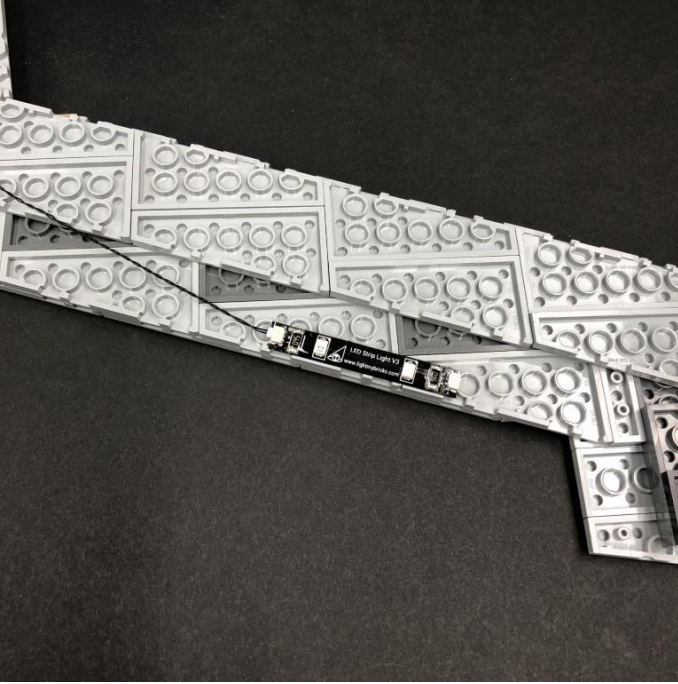**192.Take a 15cm Connecting Cable and connect it to one of the strip lights that are stuck to a plate. Take another 3x 15cm Connecting Cables and connect the remaining strip lights together ensuring the strip light that is not stuck to a   plate is on the very end.**

193.Using the adhesive backing on the end strip light, stick it down toward the right side of the roof section in the following position. Ensure the other components are on the left side.

195.Mount the next two strip lights using the   plate it is stuck to underneath the roof section in the following positions.

196.Mount the fourth strip light in the following position and then ensure all cables in between strip lights are tucked upward.
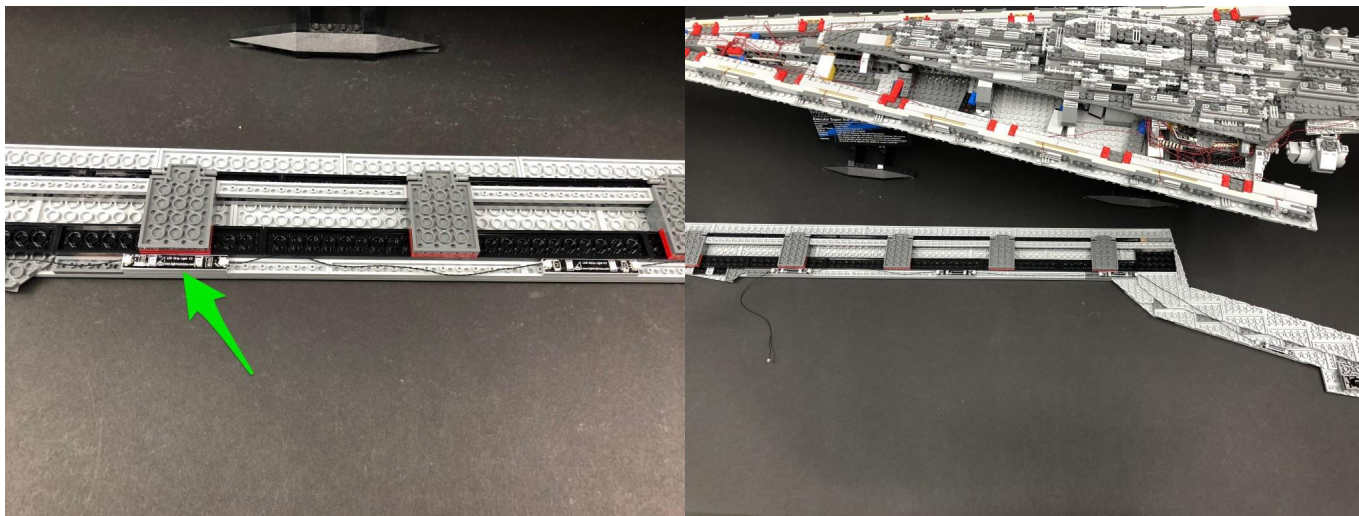
197.We will now install Blue Strip Lights underneath the right roof section, the same way as we did for the left roof section. Take the right roof and then turn it over so that we can access underneath.

198.Follow the same method used in previous step to install another 4x Blue Strip Lights underneath the right roof.

199.Take a 15cm Connecting Cable and connect it to one of the strip lights that are stuck to a plate. Take another 3x 15cm Connecting Cables and connect the remaining strip lights together ensuring the strip light that is not stuck to a   plate is on the very end.
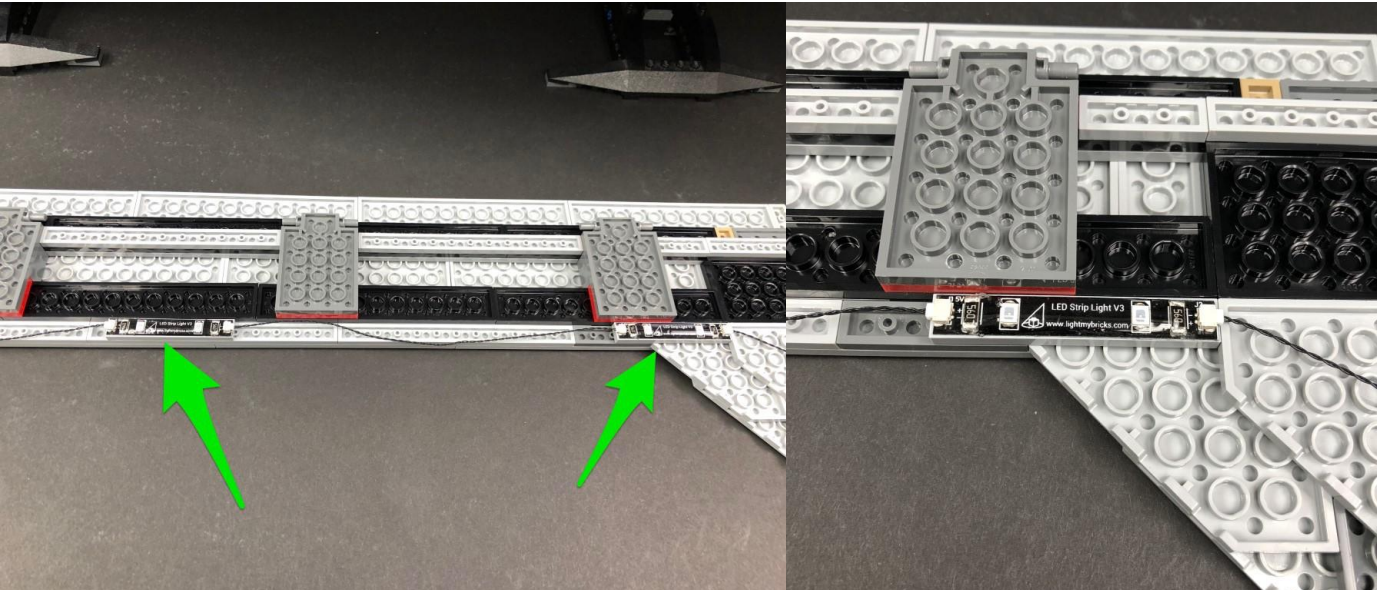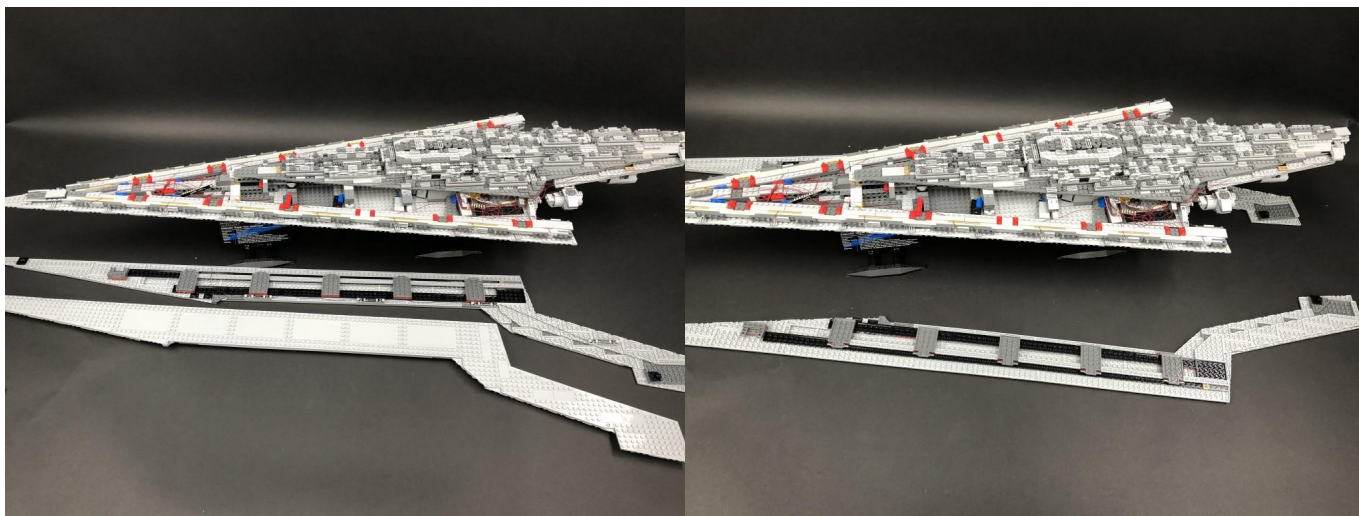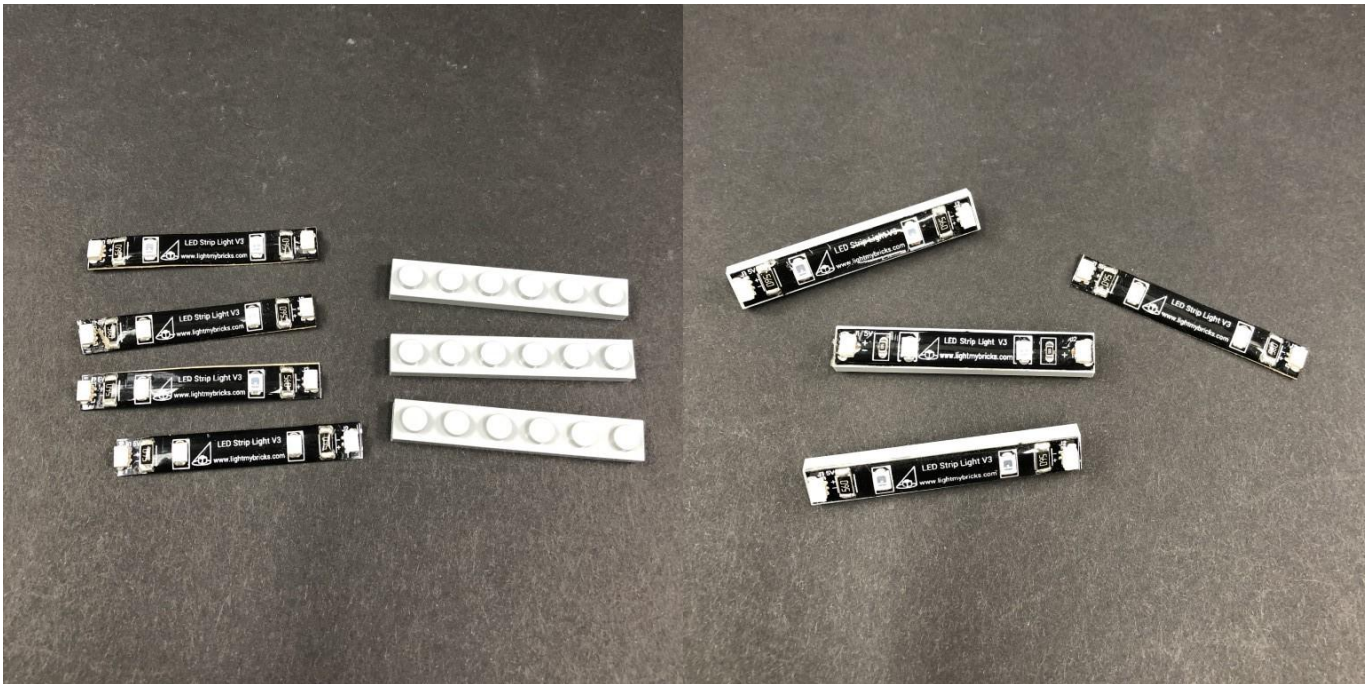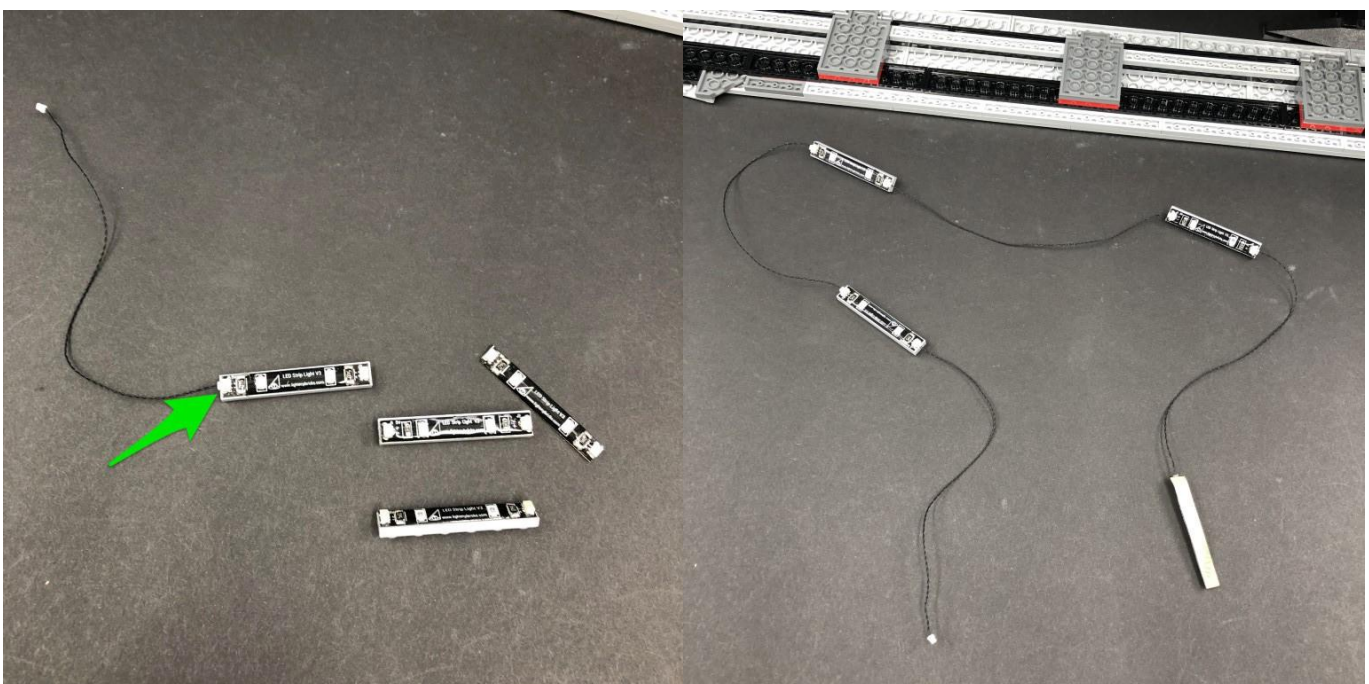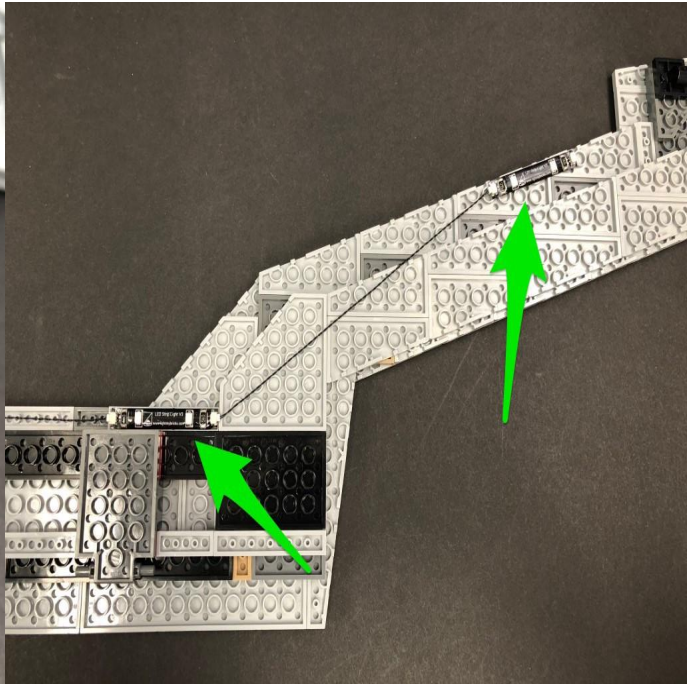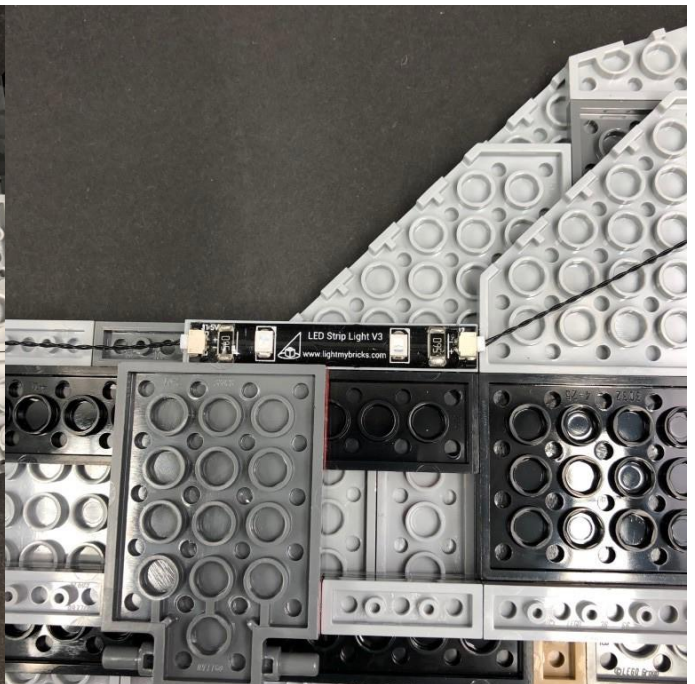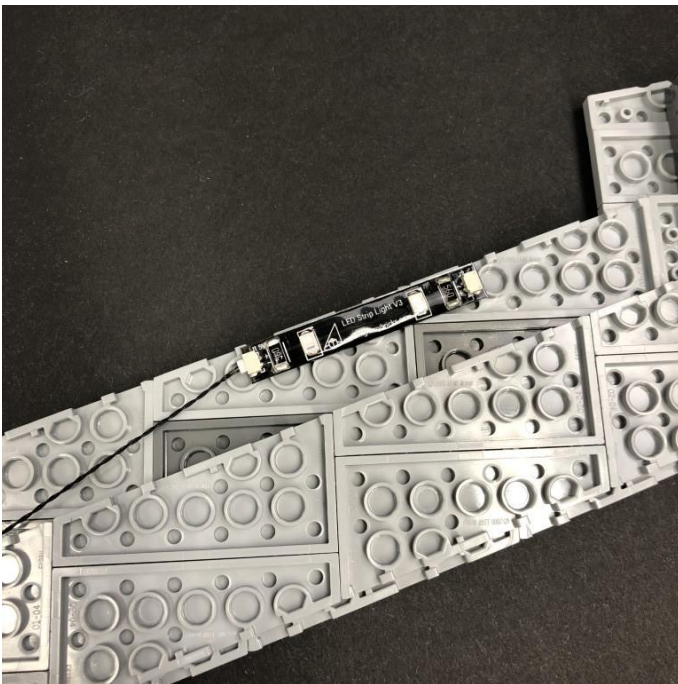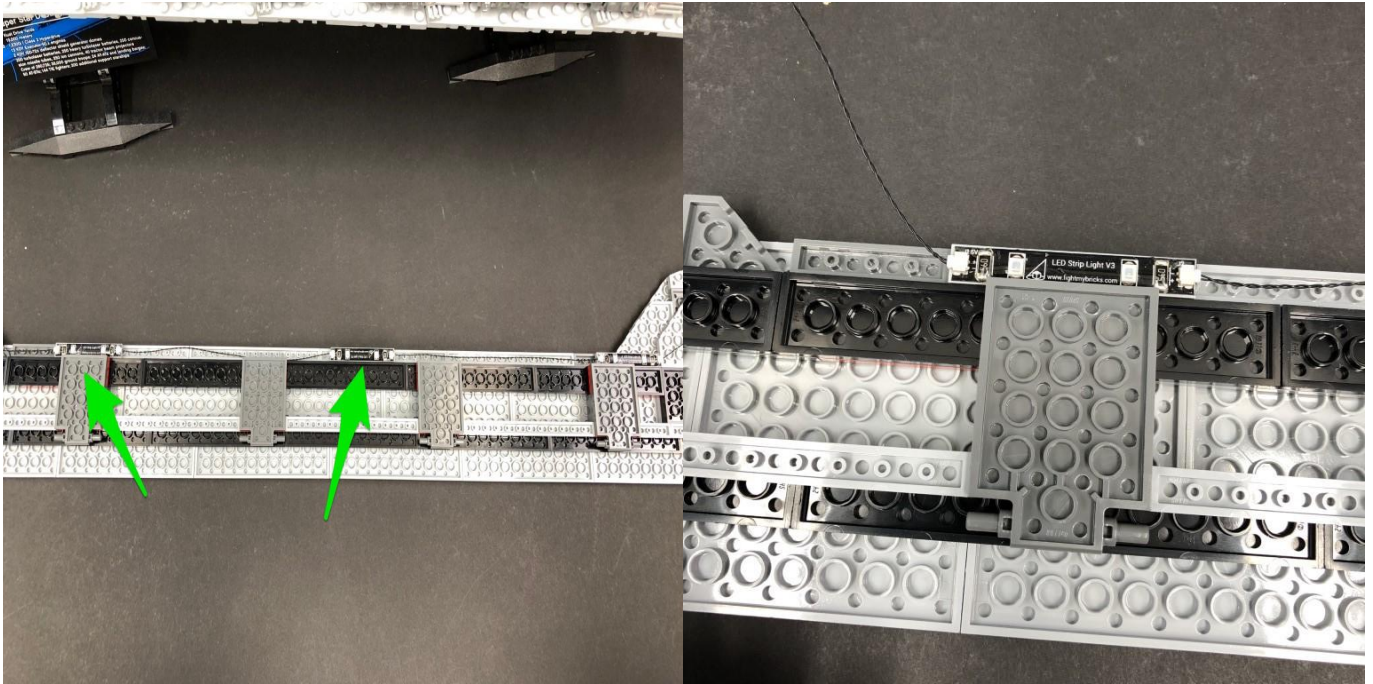
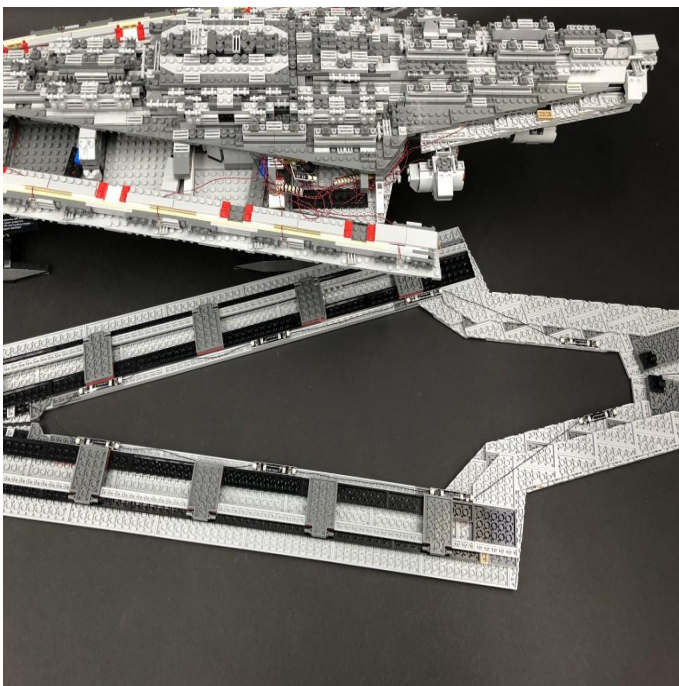## 200.Stick / Mount the strip lights in the following positions.
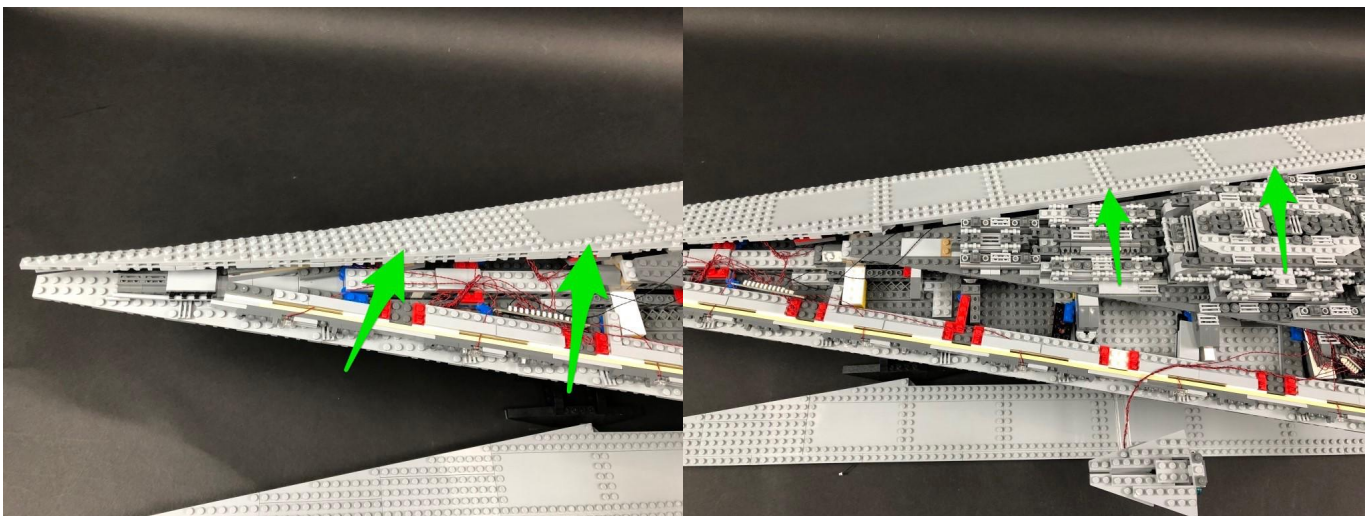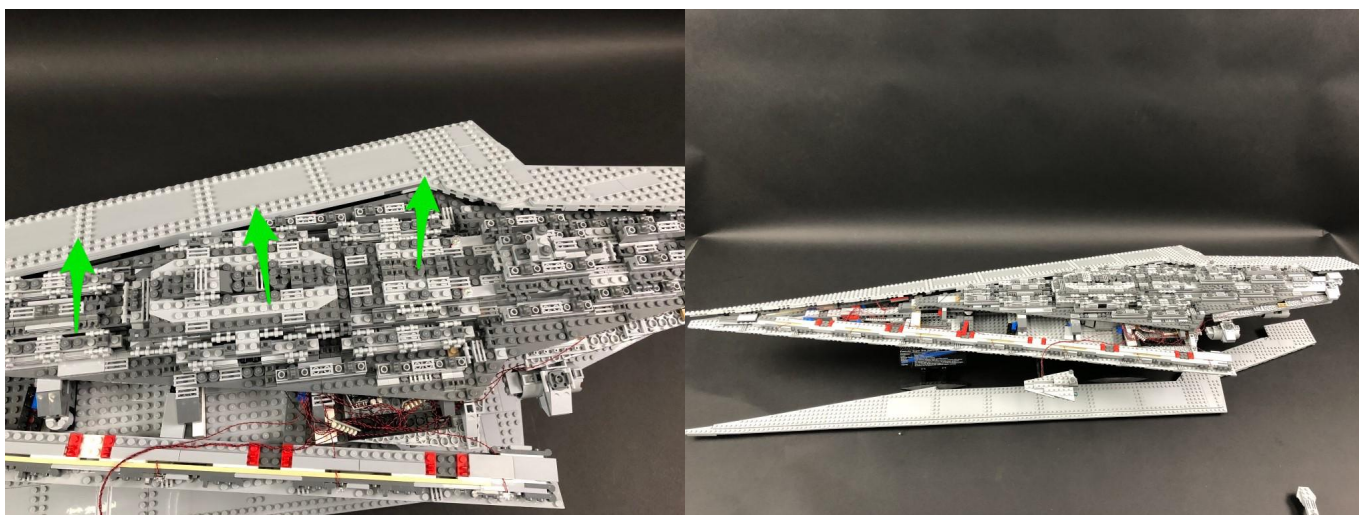
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204.Take the entire right roof and turn it over. Carefully reconnect it to the top of the star destroyer by first sliding the front end of the roof onto the light grey bar at the very front of the ship and then clip the 6 sections to the red clips underneath.
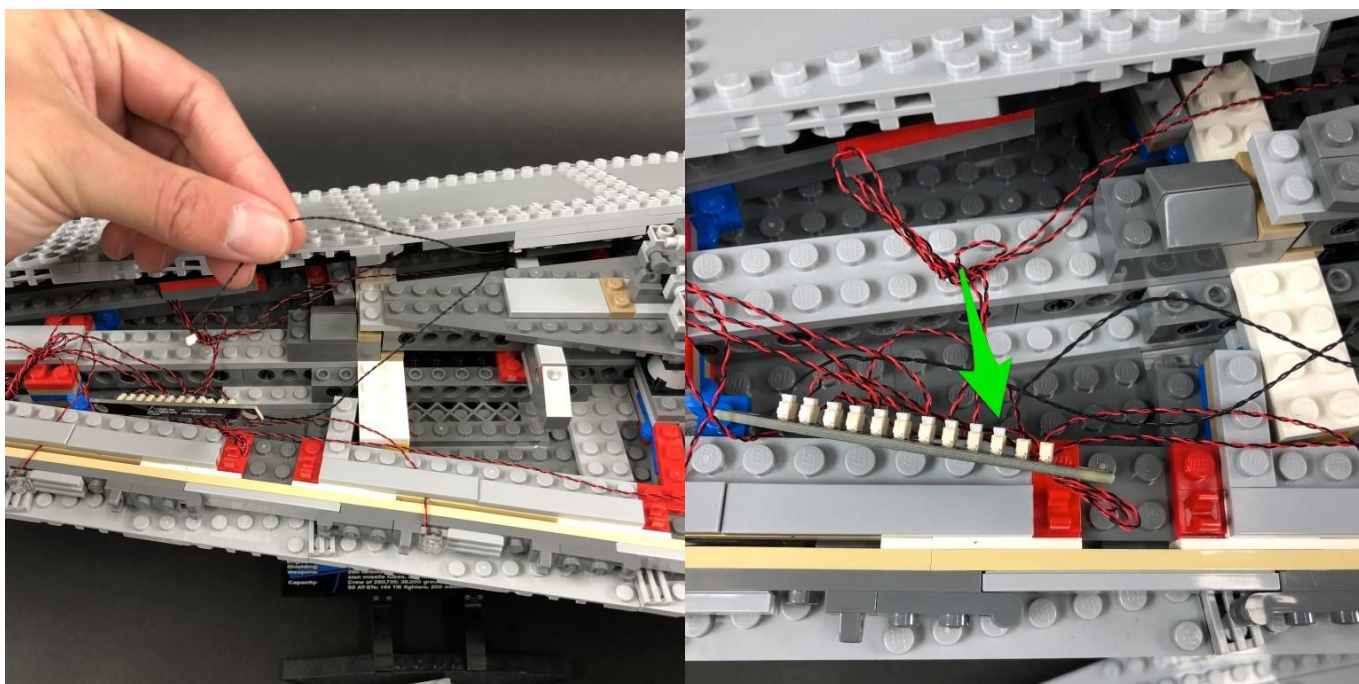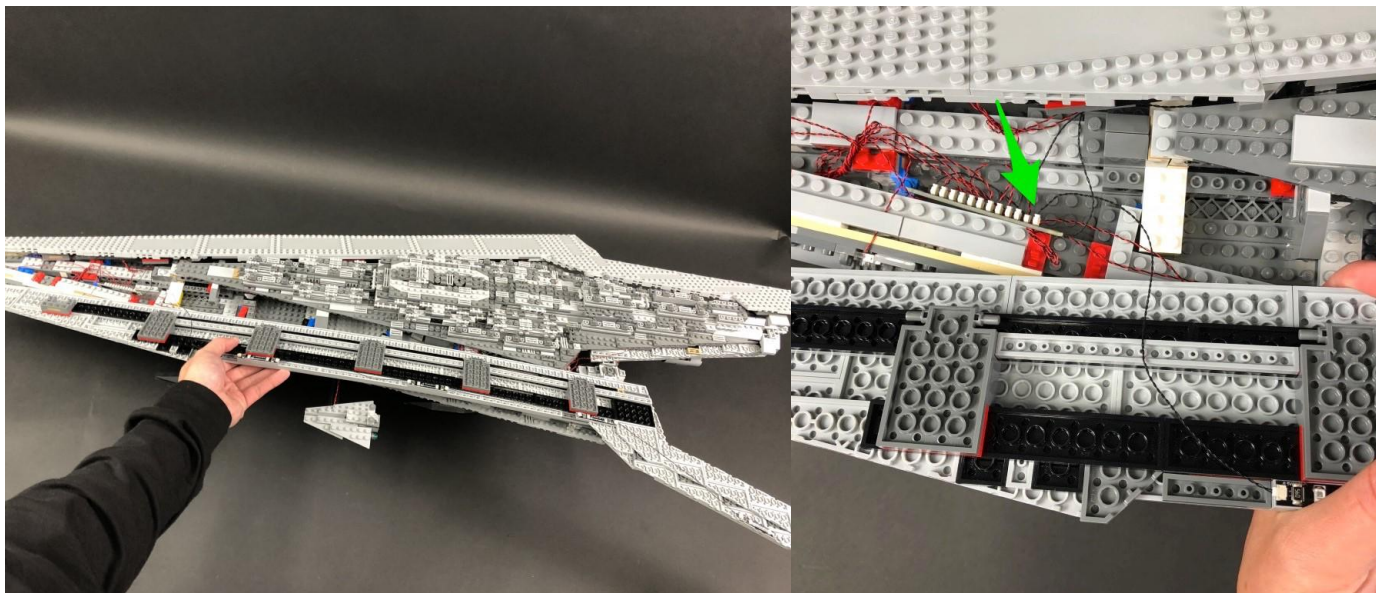

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207.Take the other end of the 15cm cable at the front of the roof and connect it to a spare port on the 12-port expansion board below.

208.Take the entire left roof section bring it over the top of the star destroyer. Take the other end of the 15cm connecting cable from the first blue strip light and connect it to a spare port on the 12-port expansion board underneath.

209.Turn the roof section over and then reconnect it back to the top of the ship by first sliding the front end of the roof onto the light grey bar at the very front of the ship and then clipping the 6 sections to the red clips underneath.
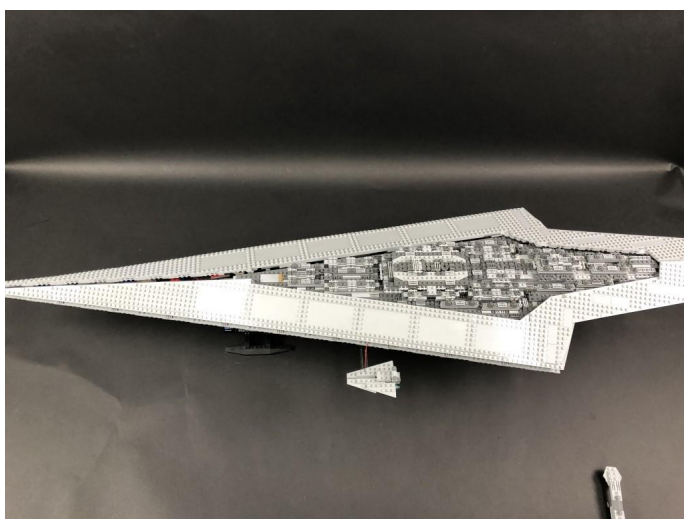
210.Reconnect the last remaining section we removed at the very start.
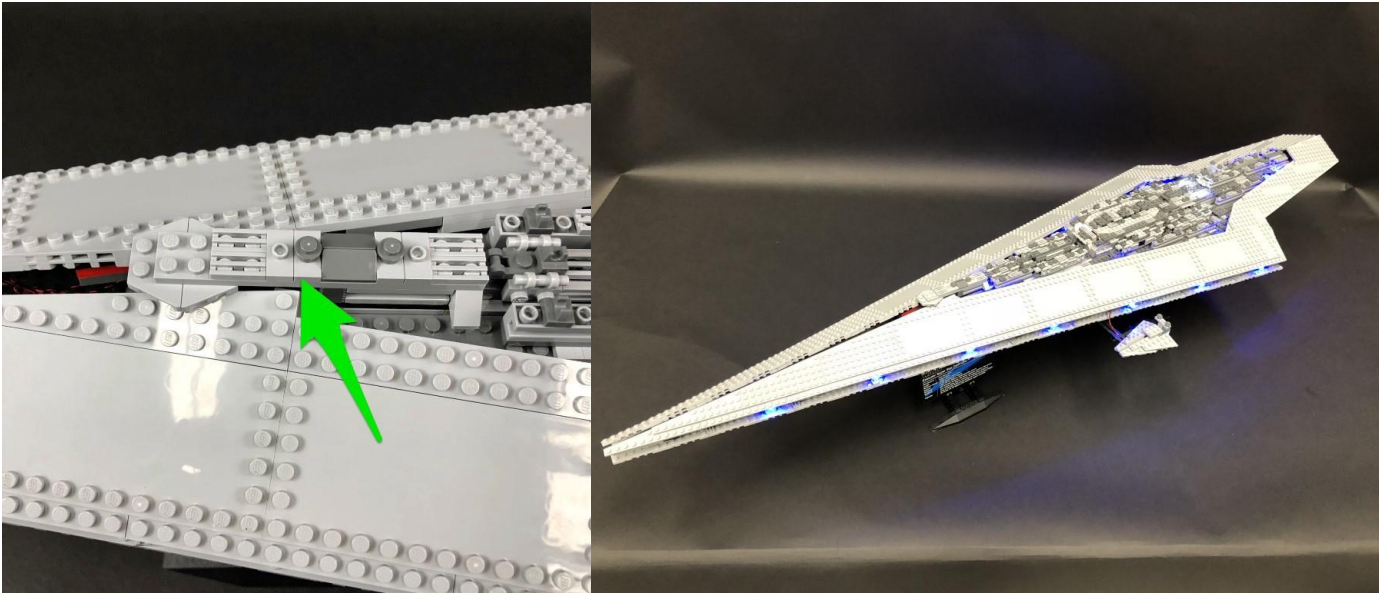
Good job, you've done all the installation steps, power it up and enjoy your work.