

Light My Bricks : R2-D2 LED Lighting Kit



Here is the instruction document for the Lego R2-D2 LED lighting kit. Please read and follow the steps carefully to ensure this lighting kit is installed properly.

If you run into any issues, please refer to the **online troubleshooting guide**.

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

Package contents:

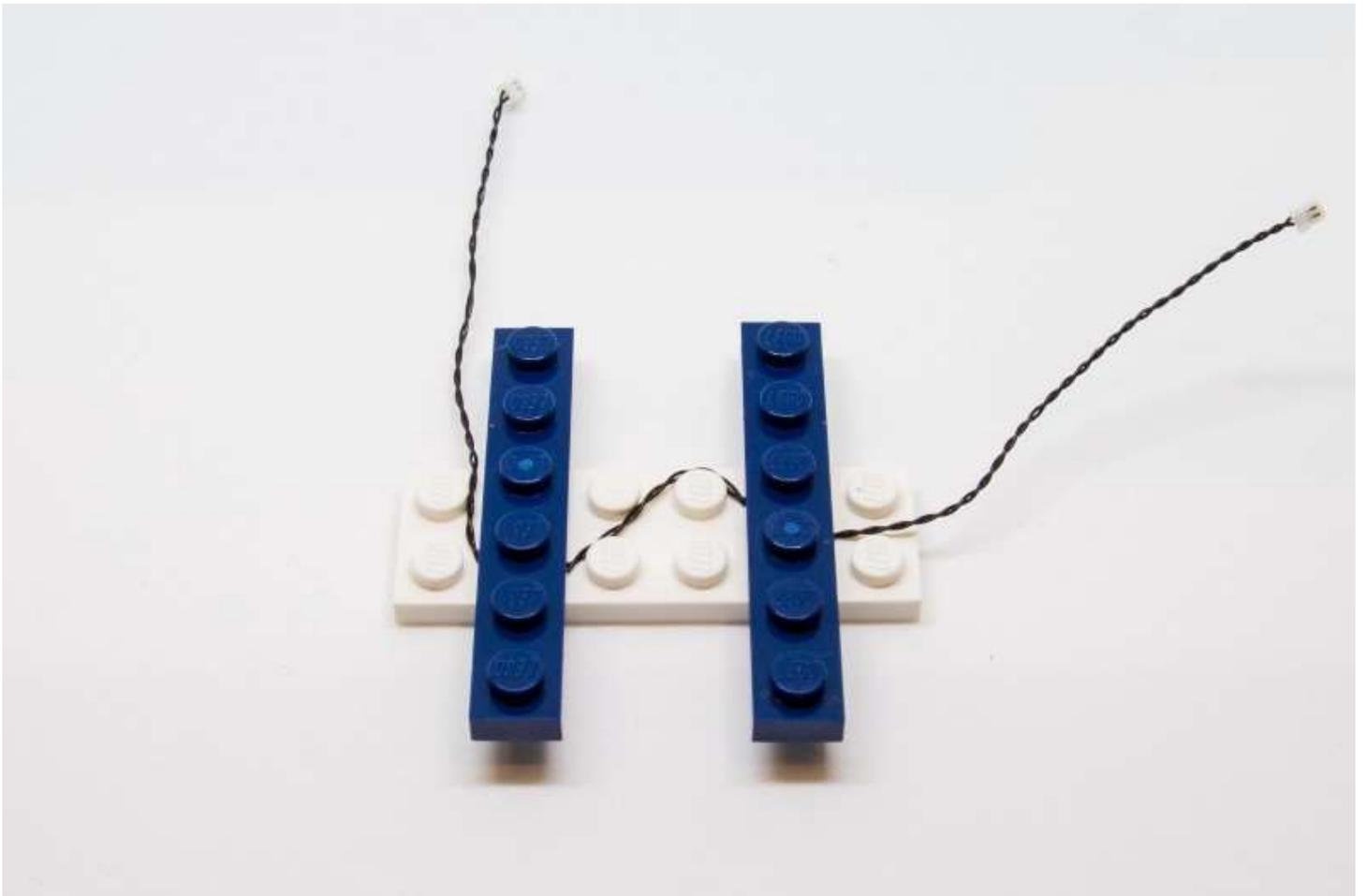
- 2 x **White 30cm Bit Lights**
 - 2 x **Blue 30cm Bit Lights**
 - 1 x **6 Port Expansion Board**
 - 1 x **Battery Pack** (3 x AA Batteries not included)
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Important things to note:

Laying cables in between and underneath bricks

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

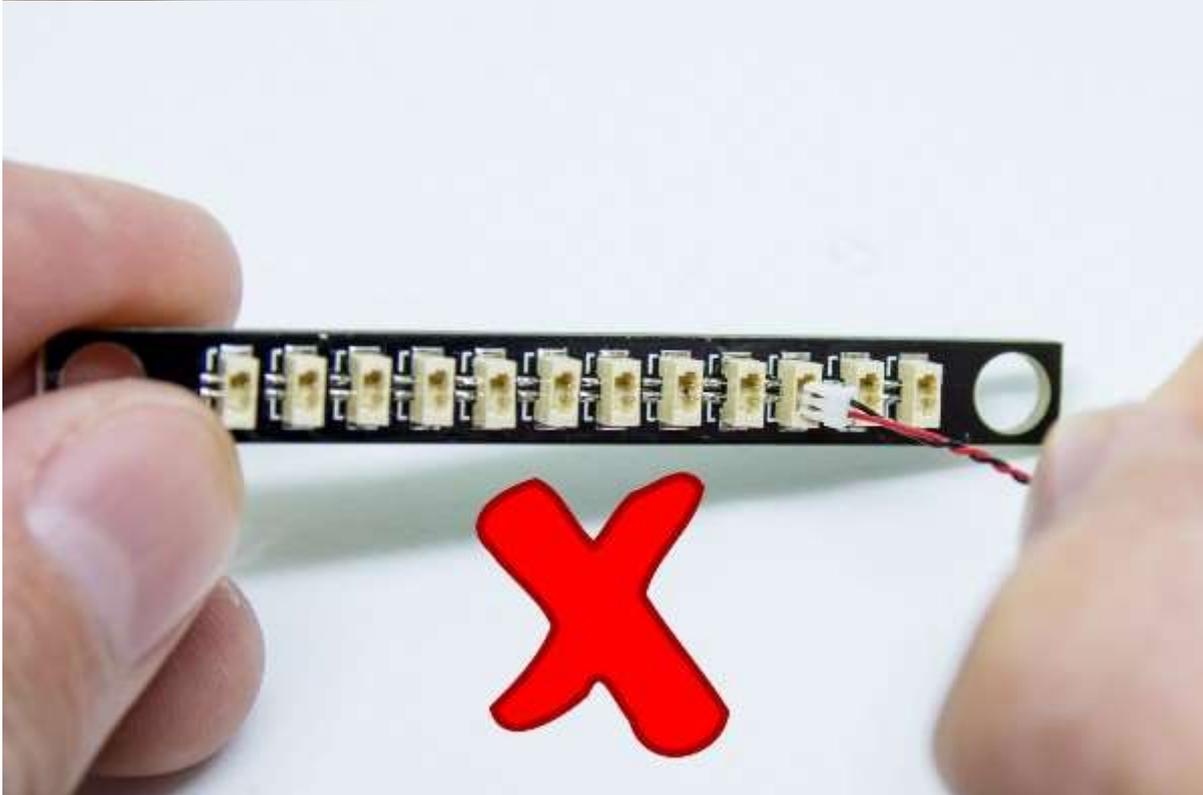
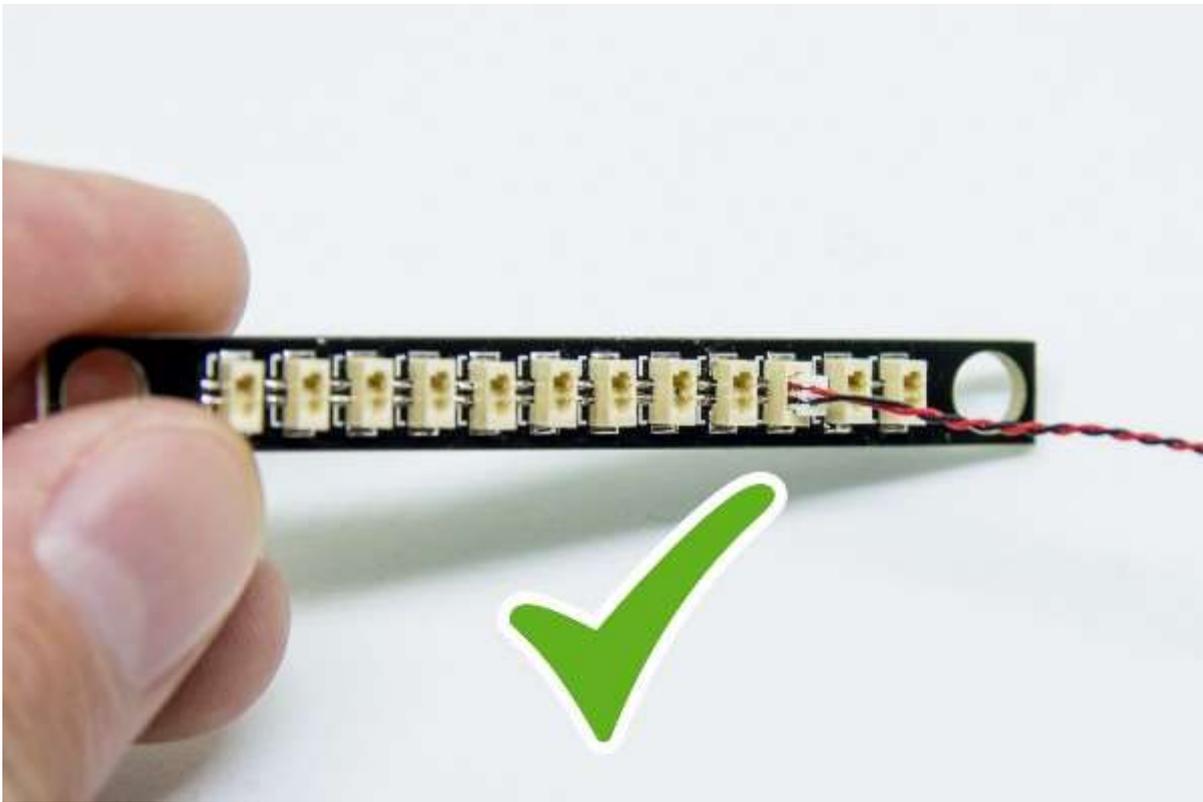




CAUTION: Forcing LEGO® to connect over a cable can result in damaging the cable and light.

Connecting cable connectors to Expansion Boards

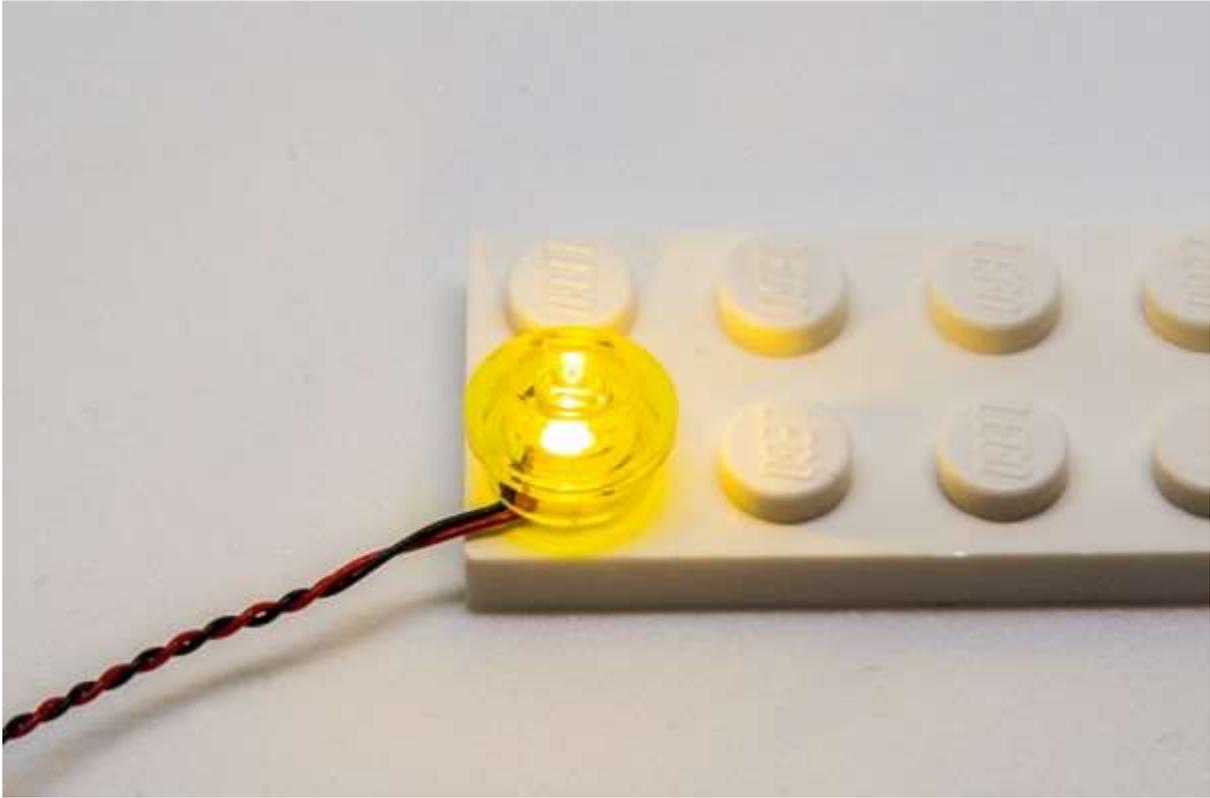
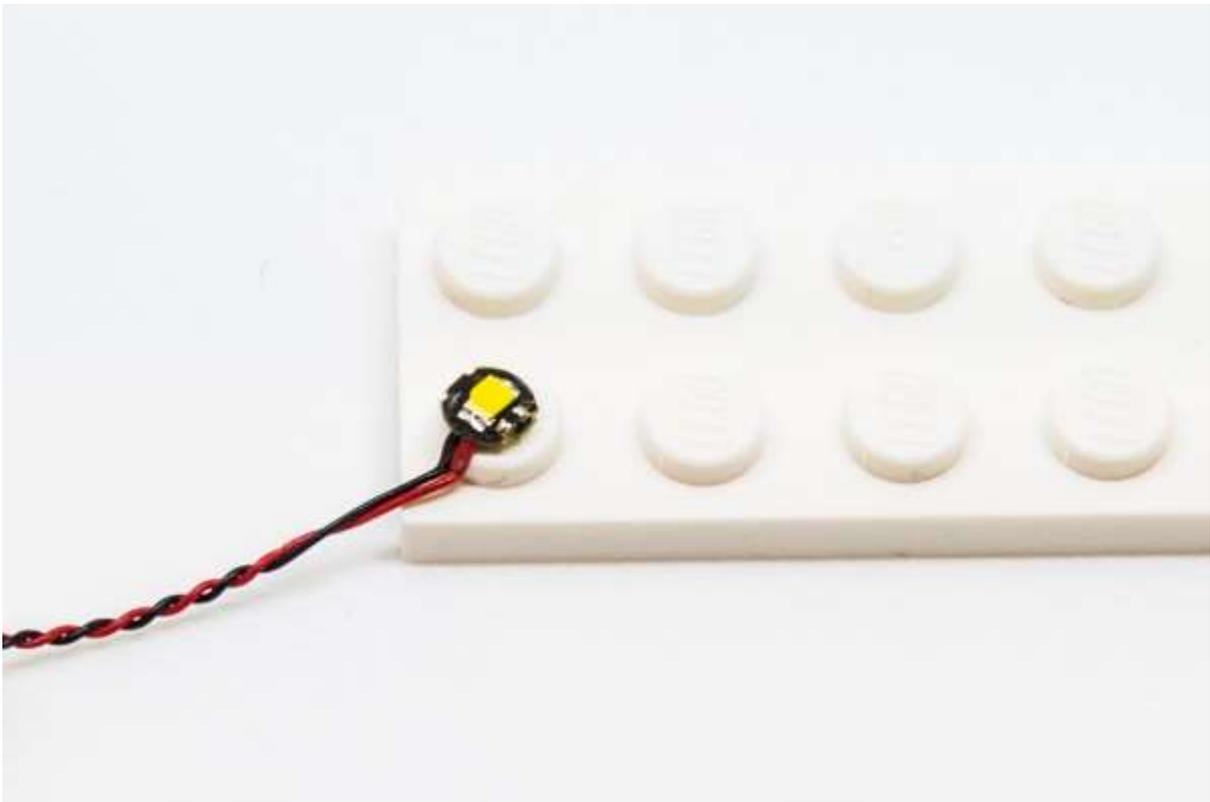
Take extra care when inserting connectors to ports of Expansion Boards. Connectors can be inserted only one way. With the expansion board facing up, look for the soldered “=” symbol on the left side of the port. The connector side with the wires exposed should be facing toward the soldered “=” symbol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

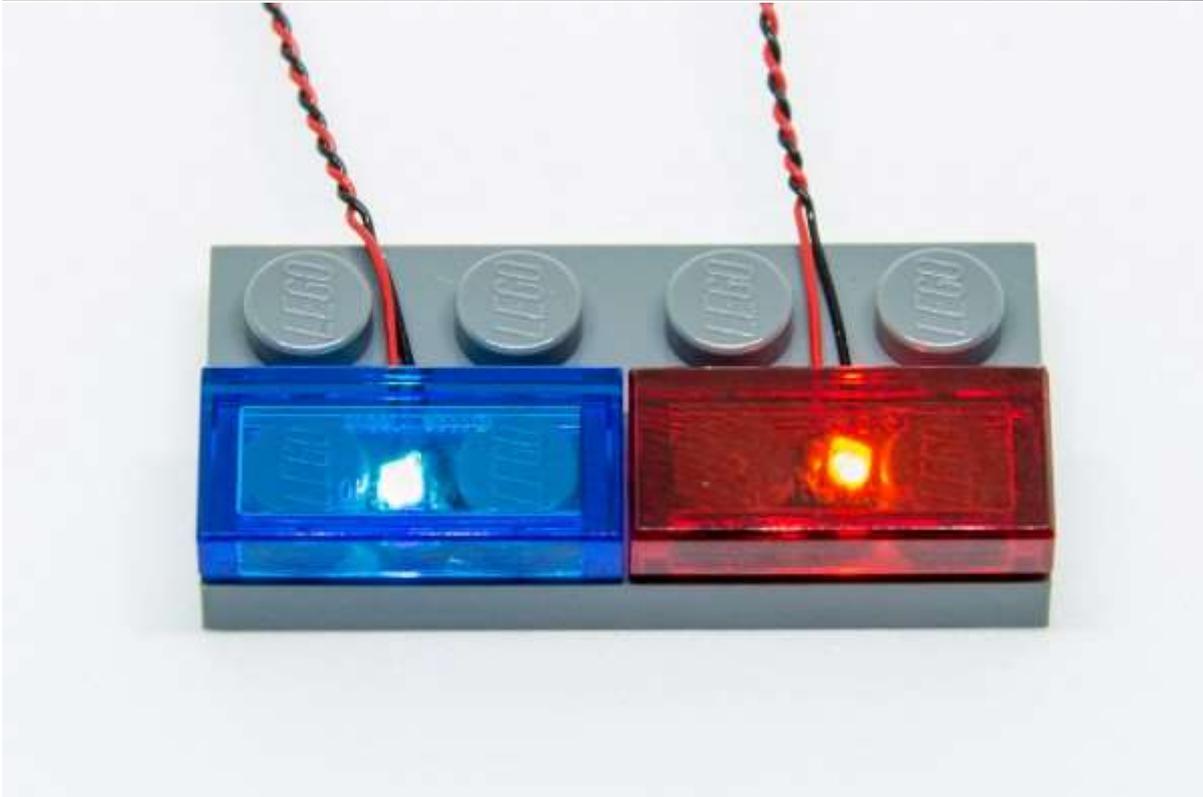
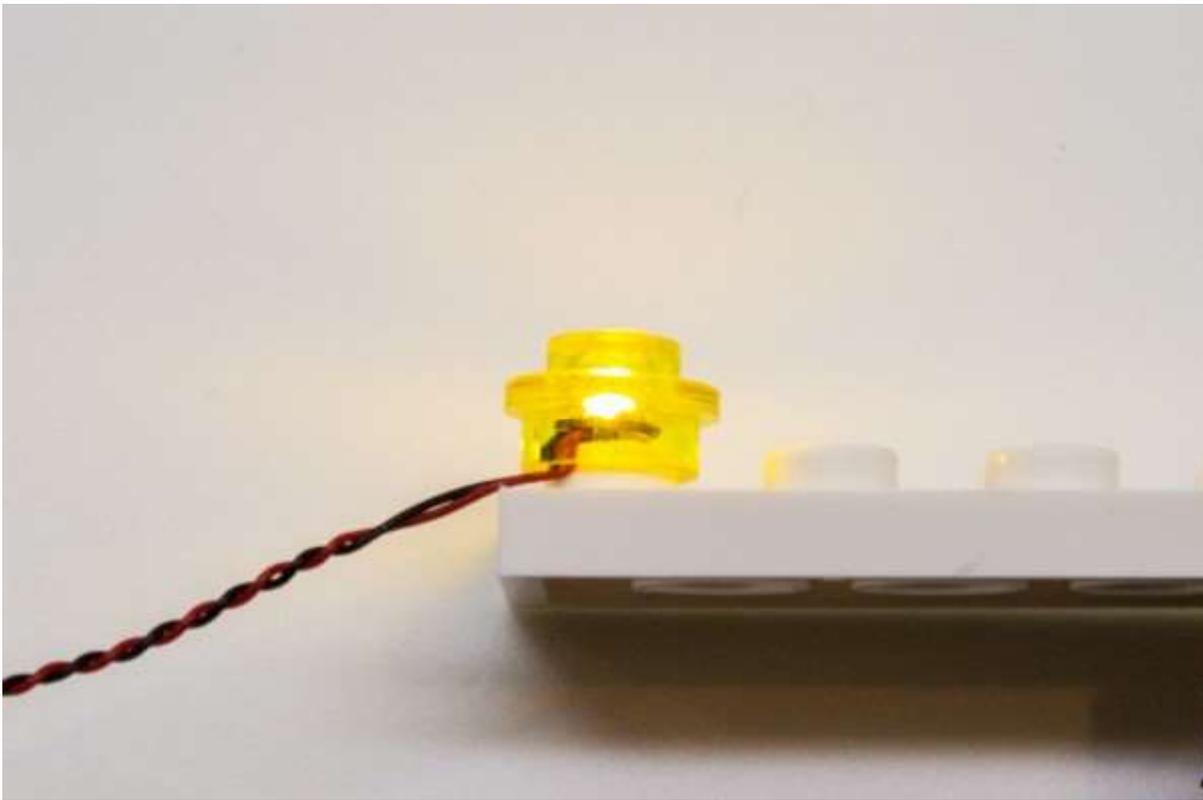


WARNING: Incorrectly inserting the connector can result in bent pins inside the port or possible overheating of the expansion board when connected.

Installing Bit Lights under LEGO® bricks and plates.

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





OK, Let's Begin!

Instructions for installing this kit

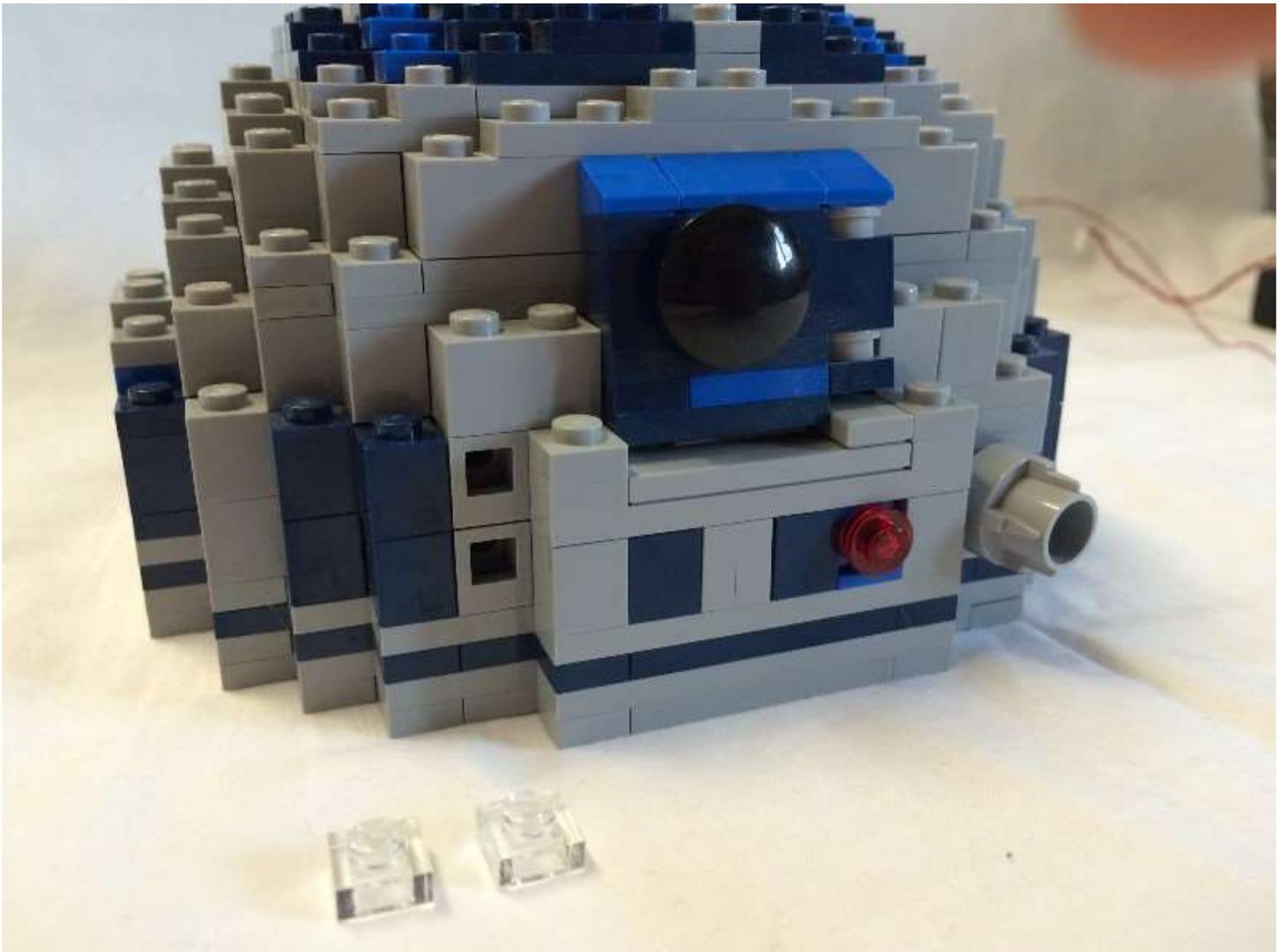
The first thing we need to do is take R2's head off. I know, it sounds brutal but he can't feel it anyway, right??

If you gently hold his head and lift upward, it should easily come off.

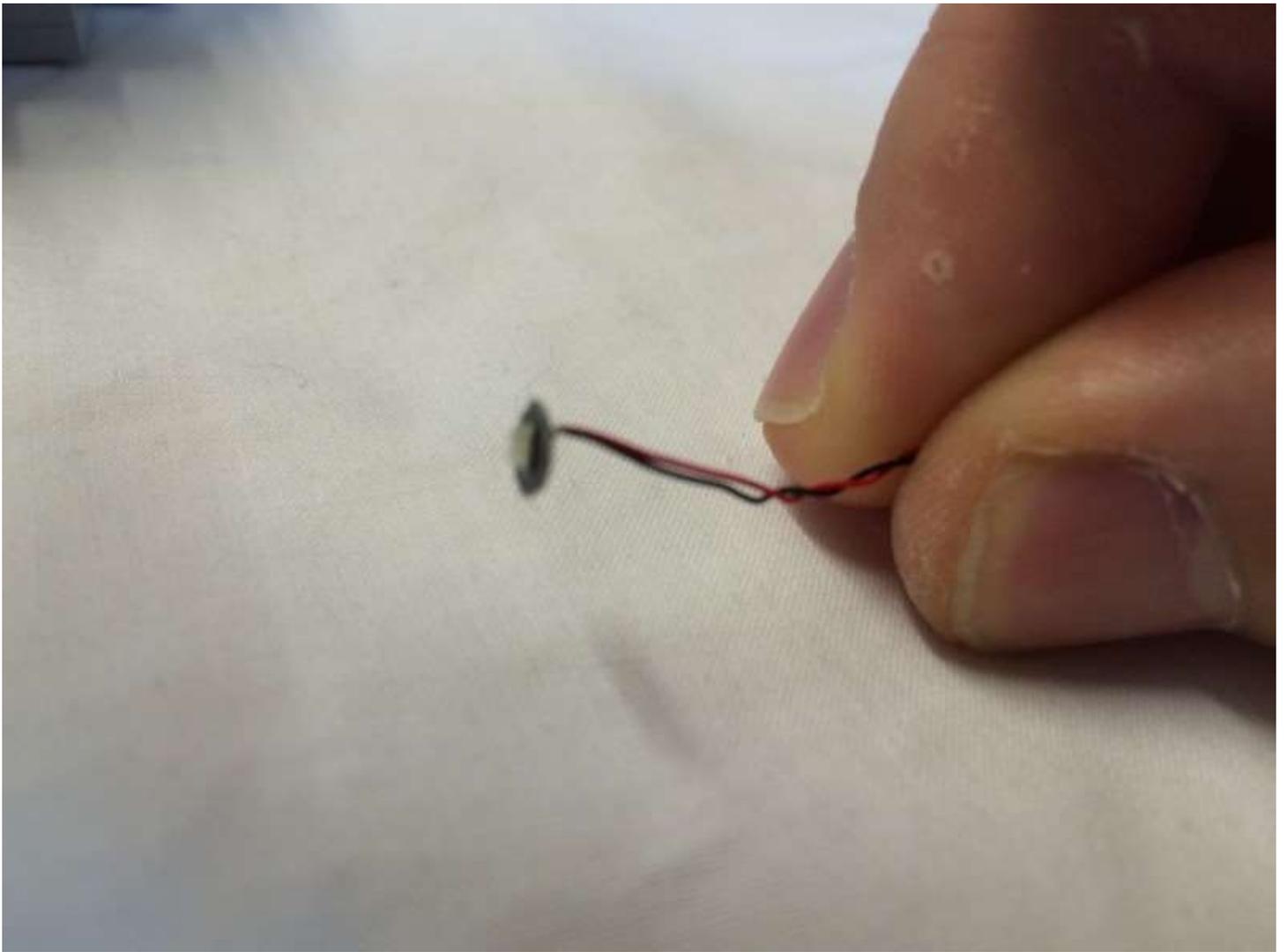




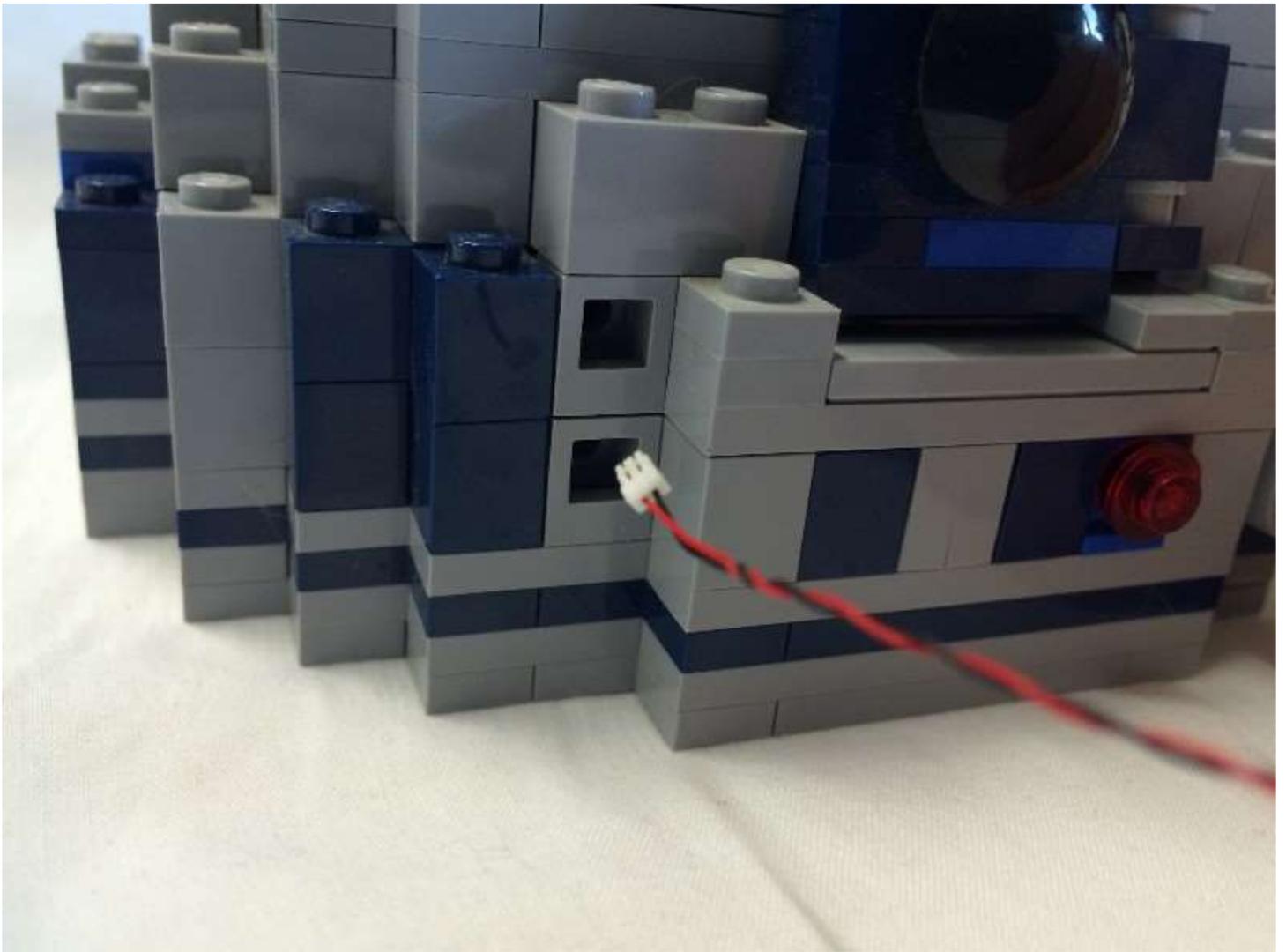
Look at the front of R2's head, look for two trans-clear 1×1 plates and remove them.



Grab two of the bit lights and angle the end so that the light is perpendicular to the wire.



Feed the connector end of each bit light into the square hole left by removing the 1×1 trans-clear plates.



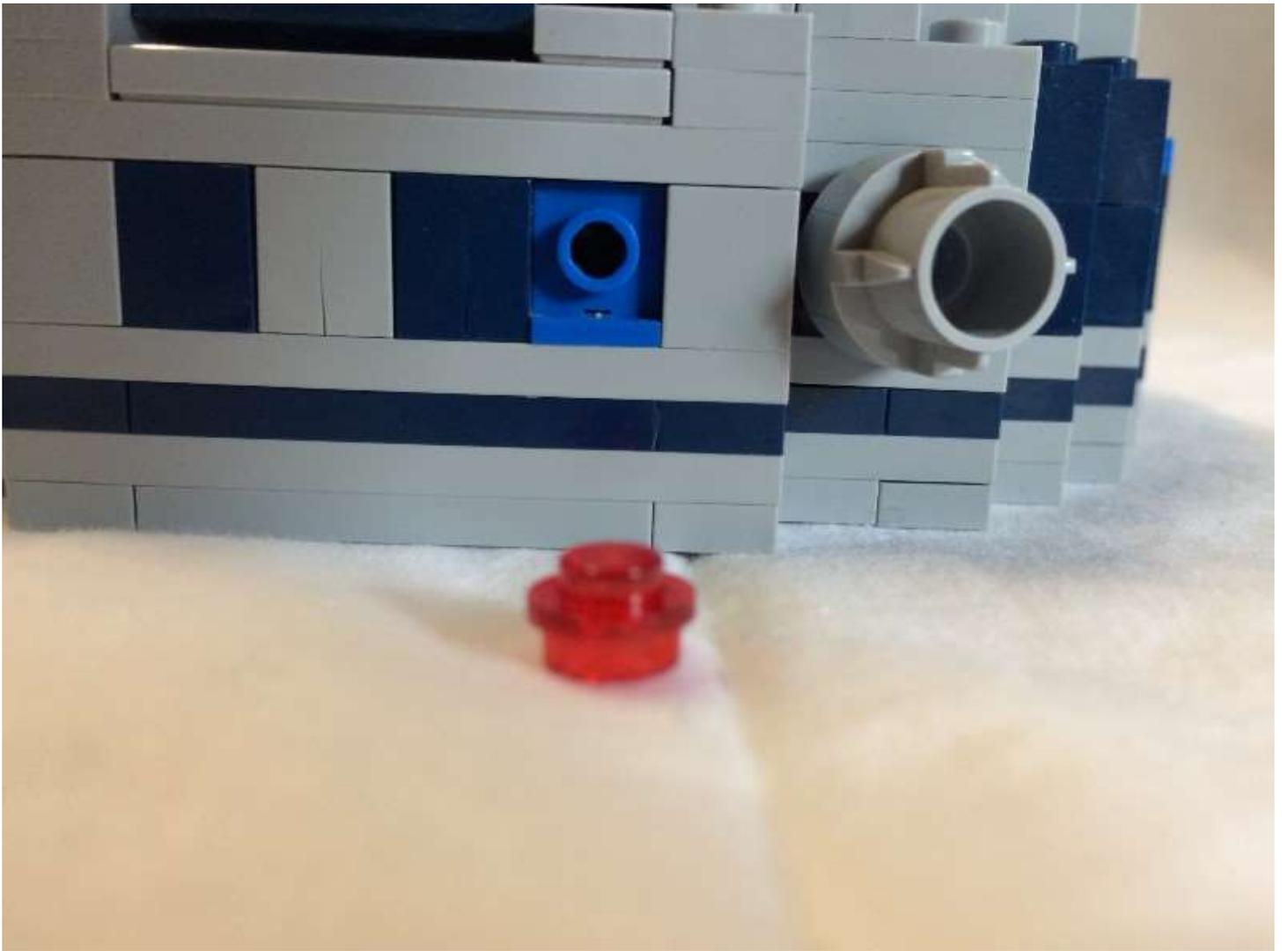
Once they are thread all the way through, the LED will sitting inside the square hole facing towards the front.



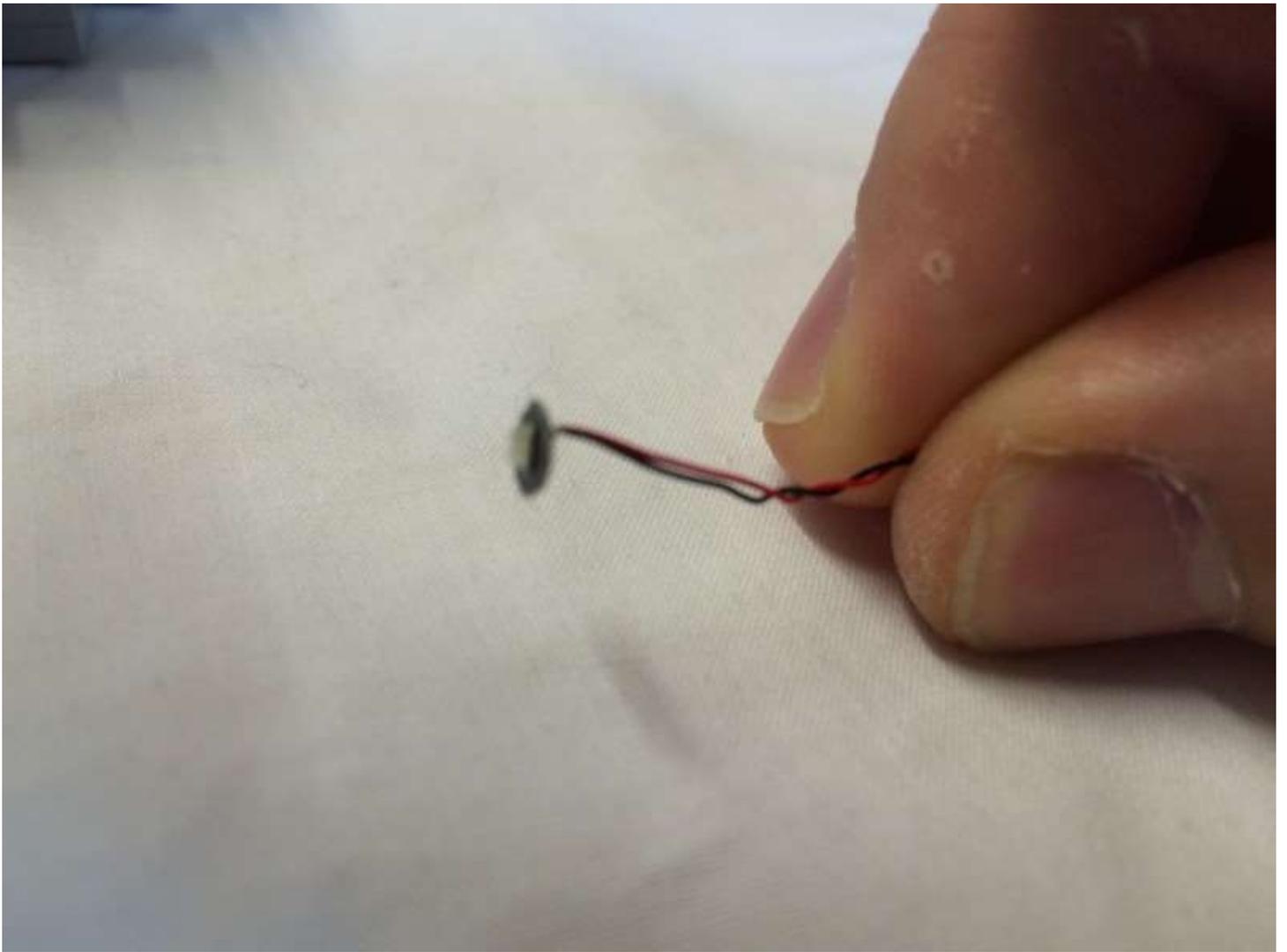
Let the plug ends of wires rest where they will.....we will get to those later.
Replace the two 1×1 trans-clear plates.



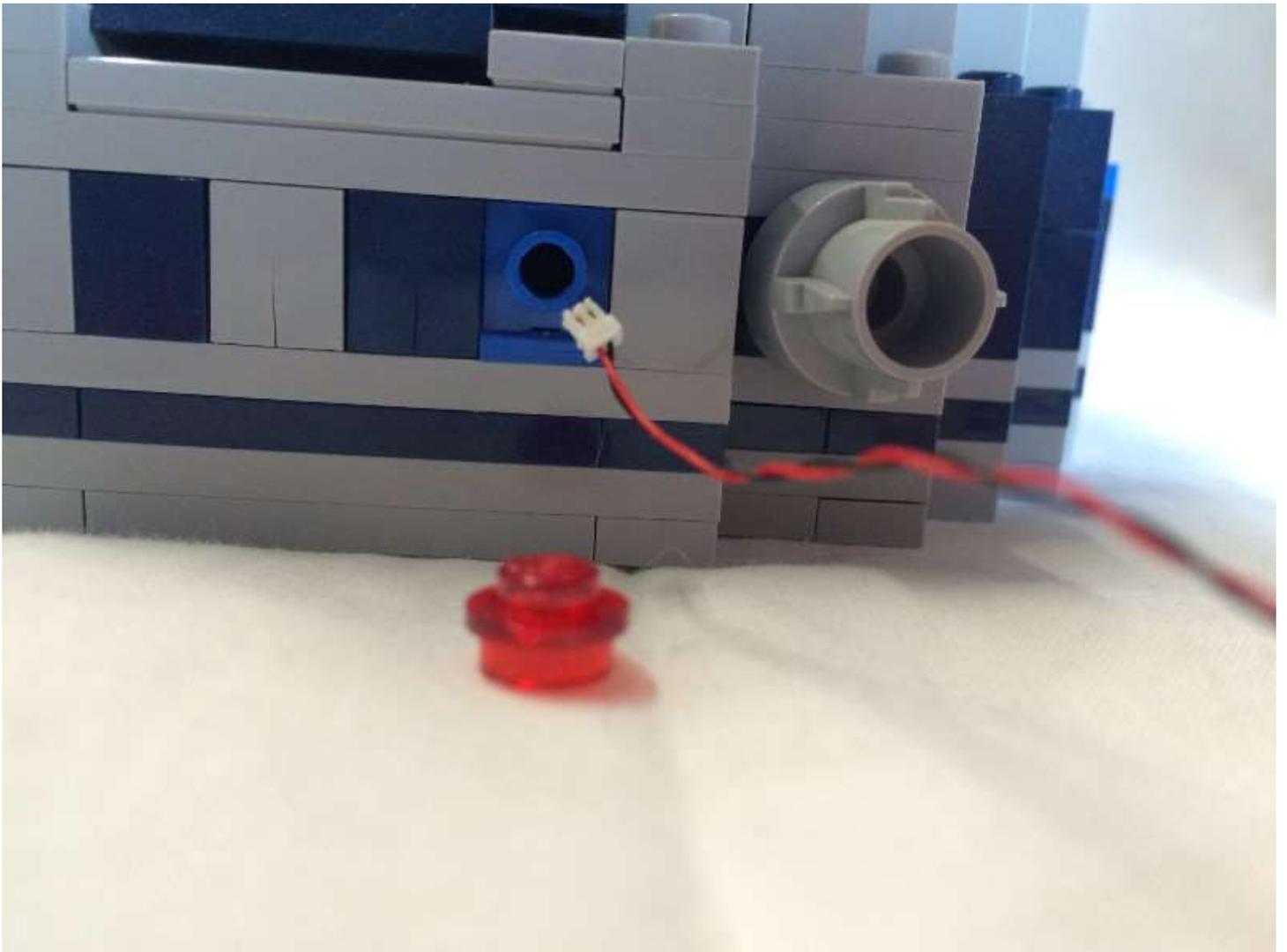
Remove the 1×1 round trans-red plate from the front of R2's head.



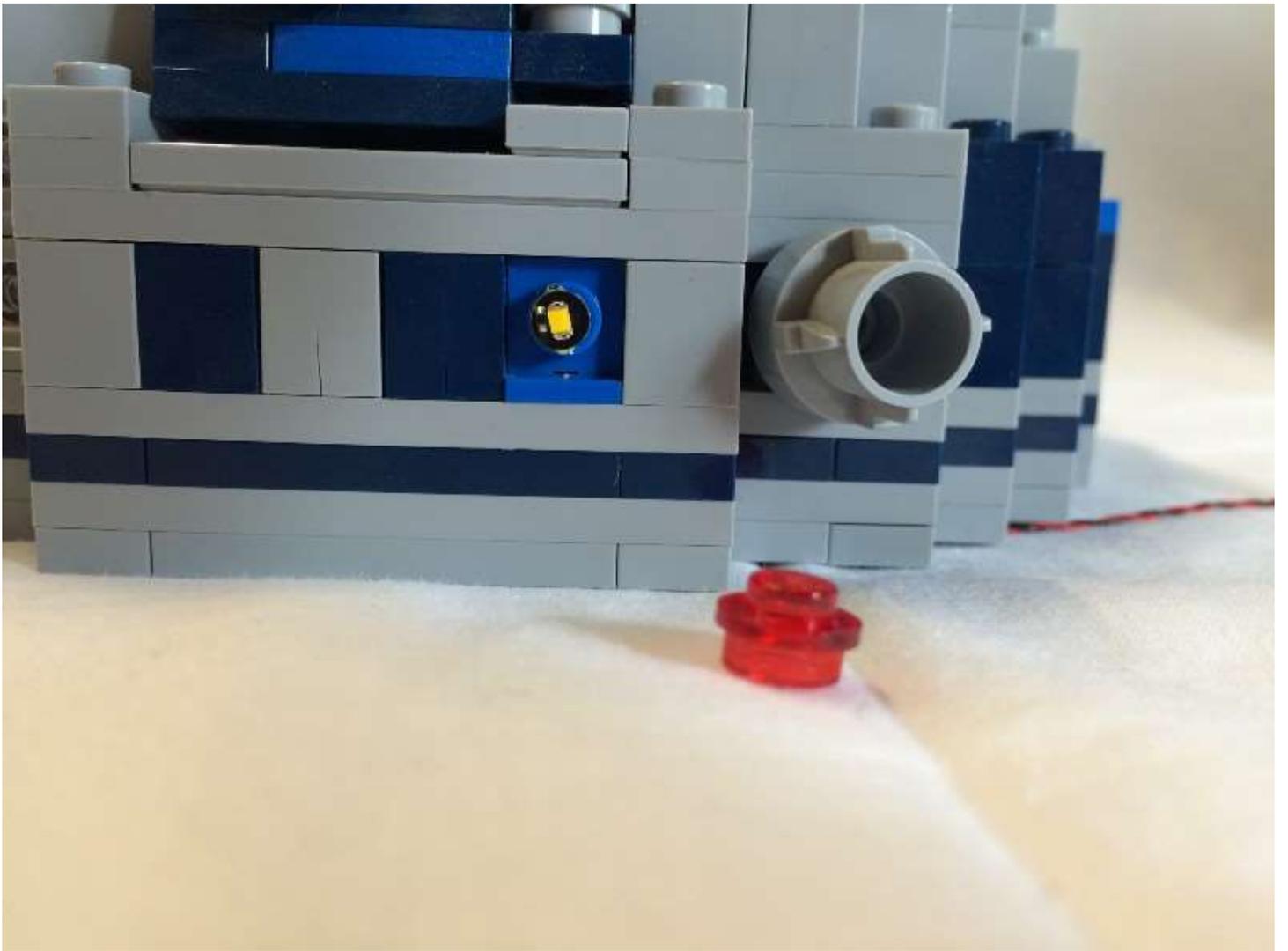
Grab one of the bit lights and angle the end so that the light is perpendicular to the wire.



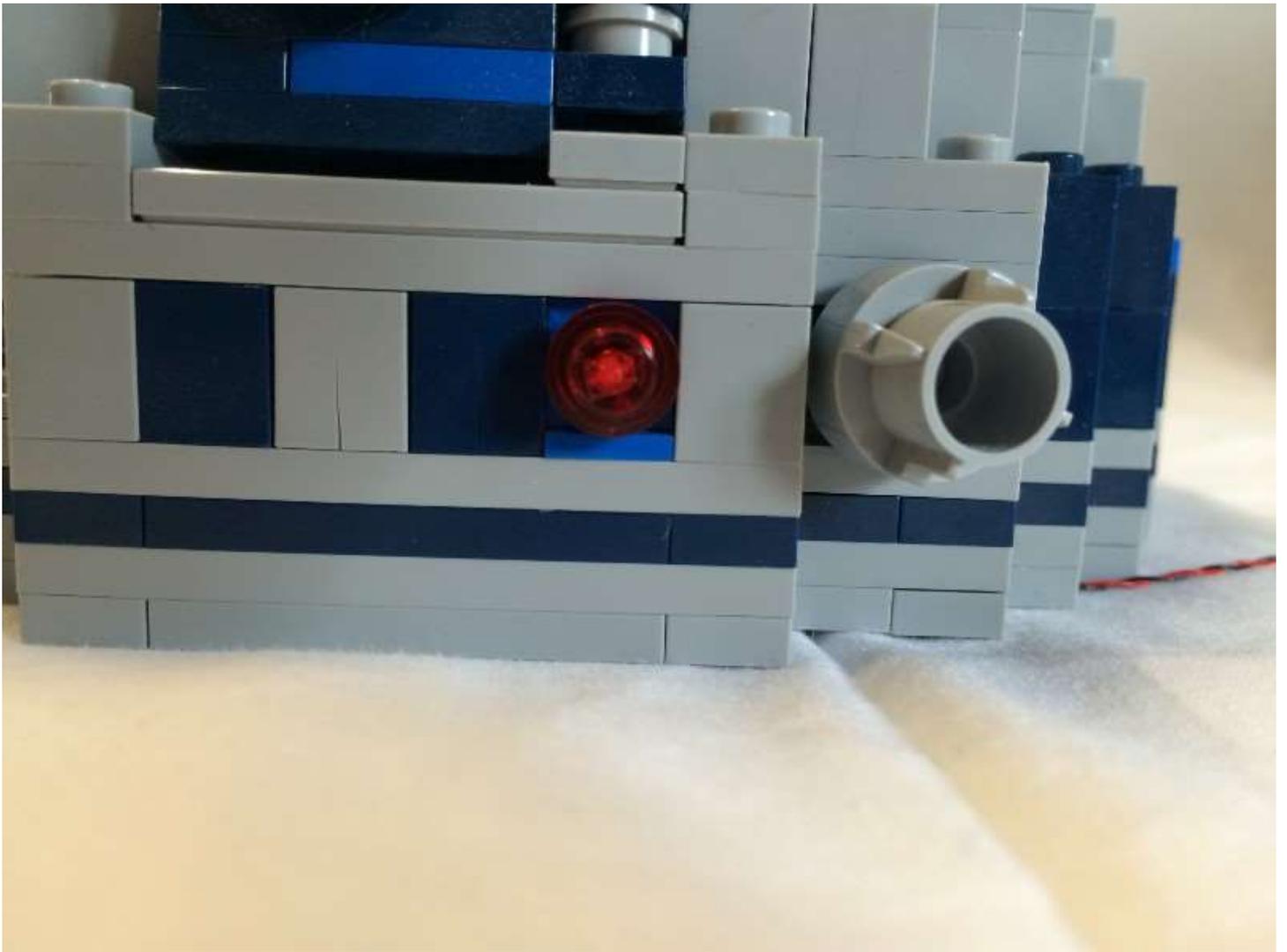
Feed the connector end of the bit light into the round hole in the blue brick left by removing the 1×1 round trans-red plate.



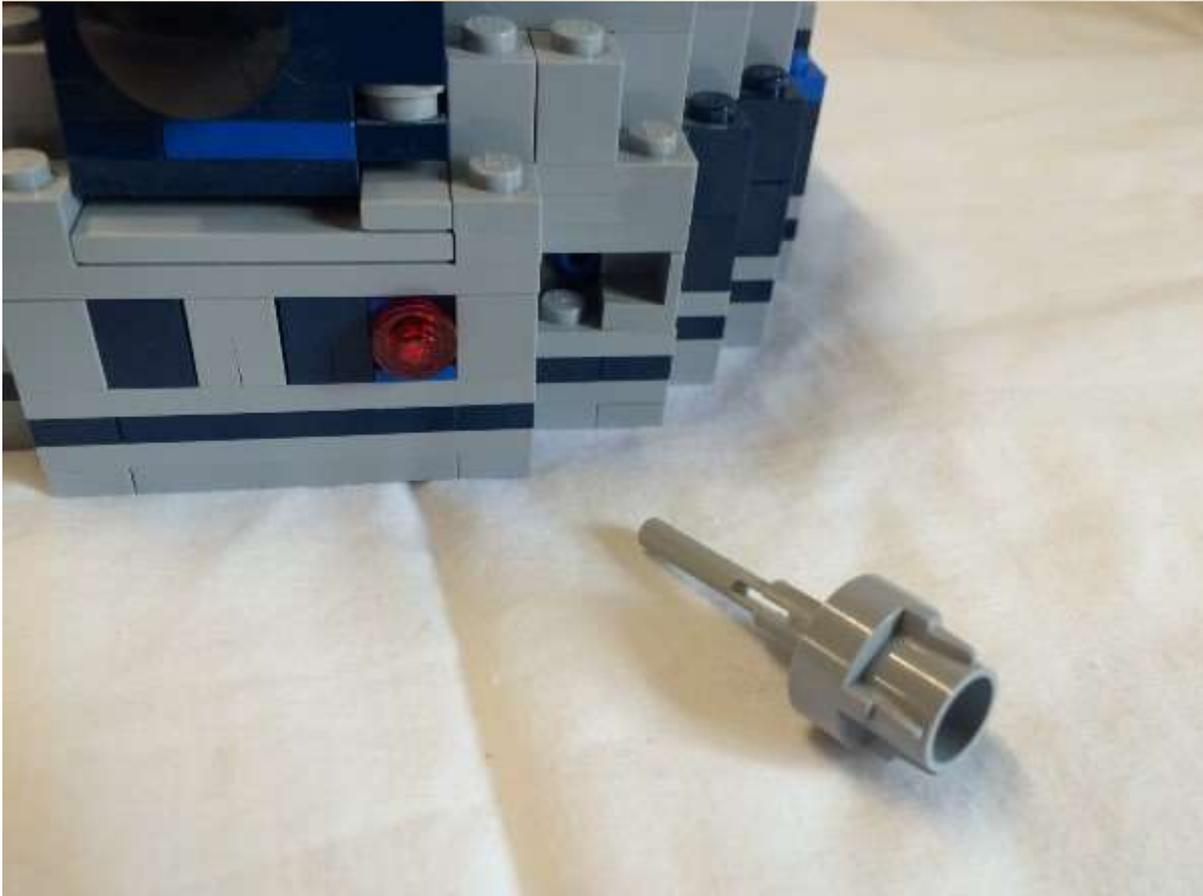
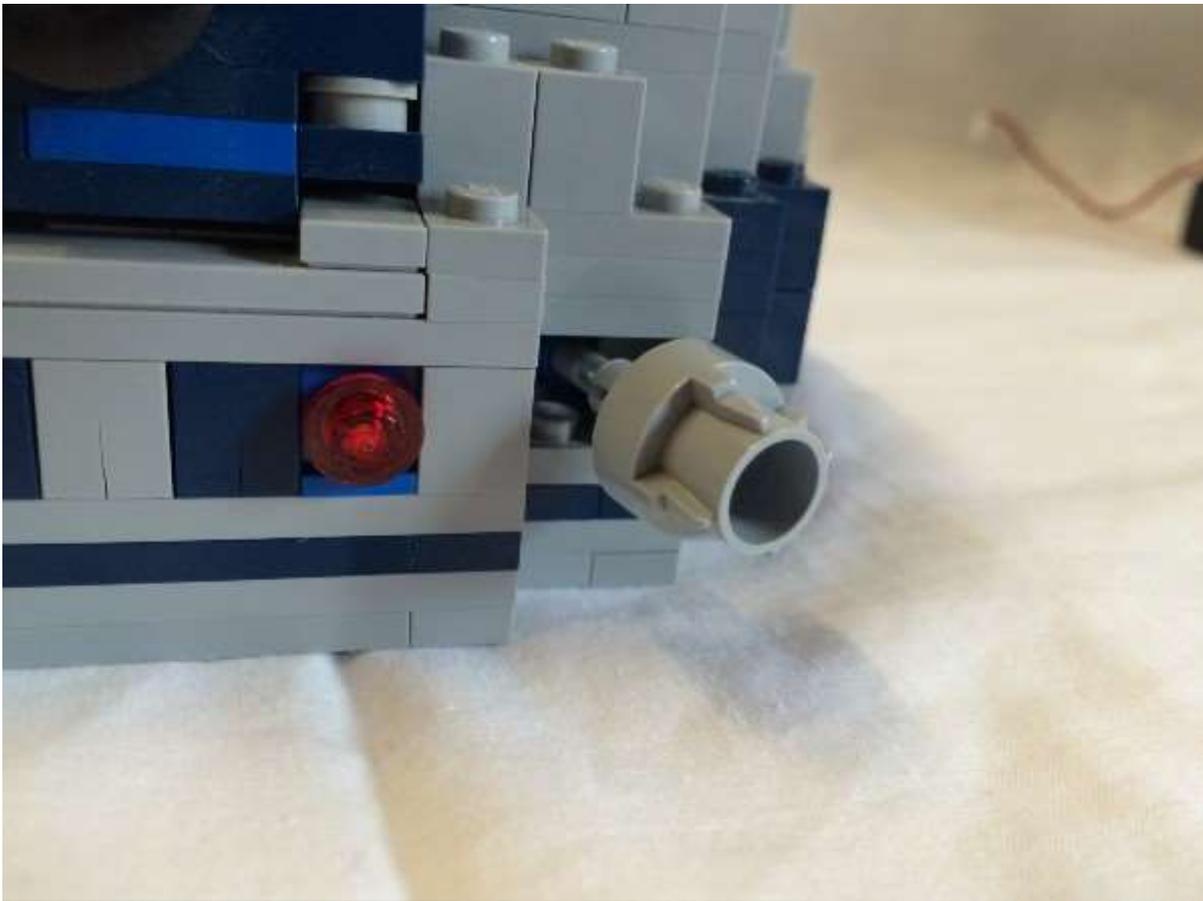
Once the wire has been fed all the way through, the bit light will sit on the outside of the round hole in the blue brick.



Replace the 1×1 round trans-red plate.



Now remove R2's projector piece by holding it and pulling it forward and out.



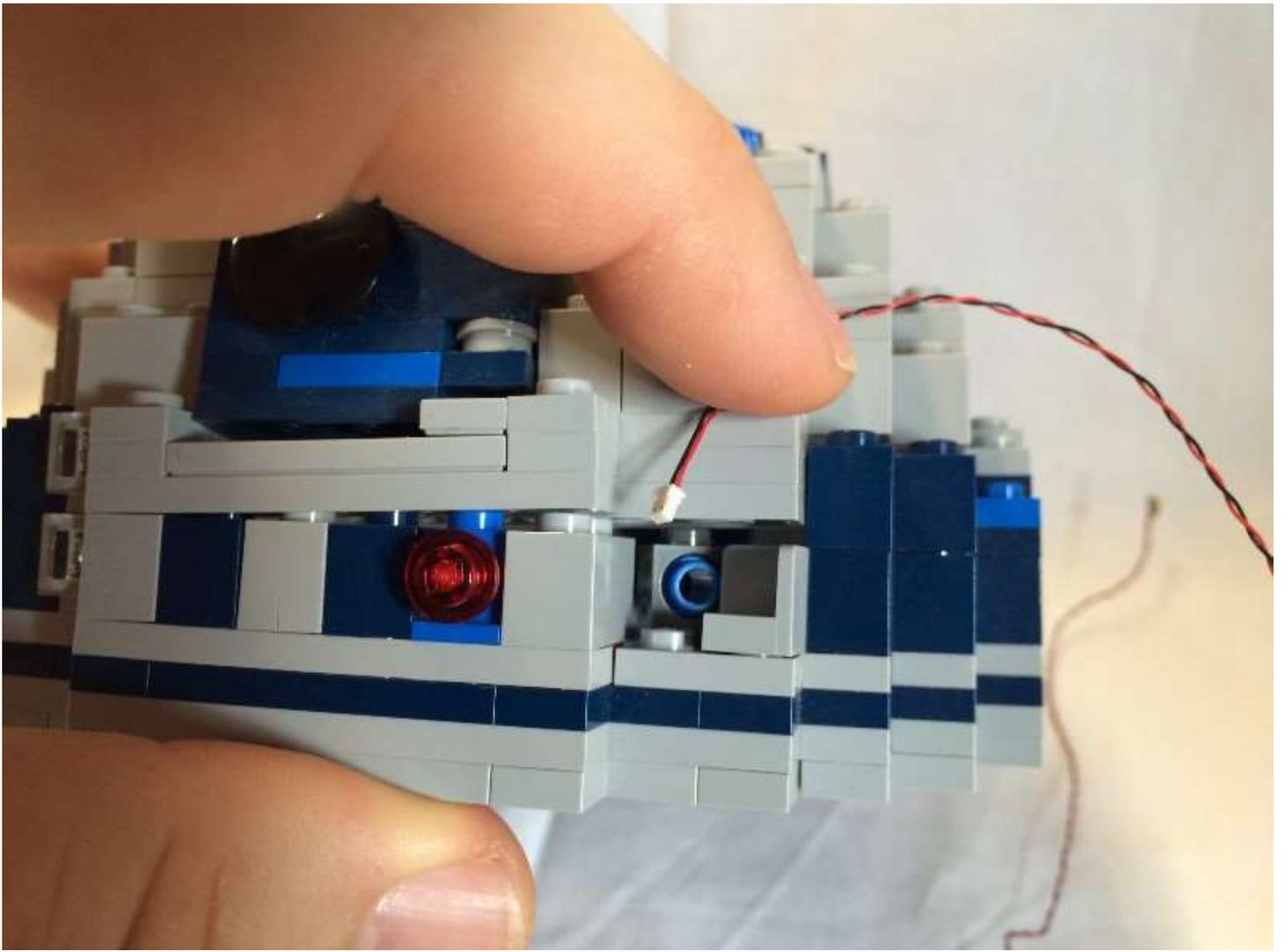
The projector piece came out of a 1×1 brick with a blue technic pin in it. The 1×1 brick can move from side to side a bit leaving a gap on the left hand side of the brick between it and the rest of R2's head.



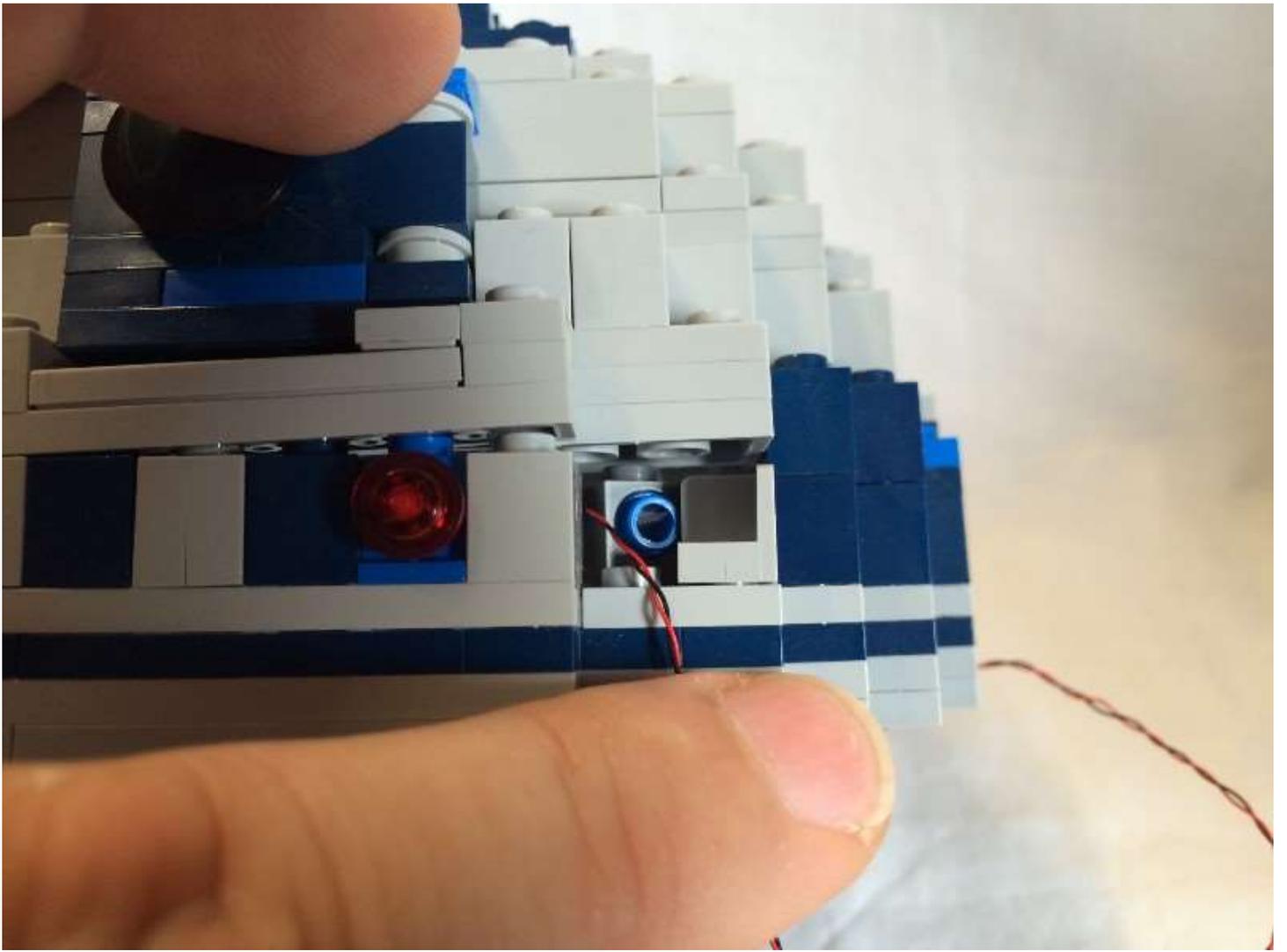
It is in this gap that we want to run the wires for the last bit light. The plug won't fit through this gap, so we need to pry some pieces apart to feed the plug through. If you lift from where the 1×1 panel is, you should get some natural separation of layers as seen below:



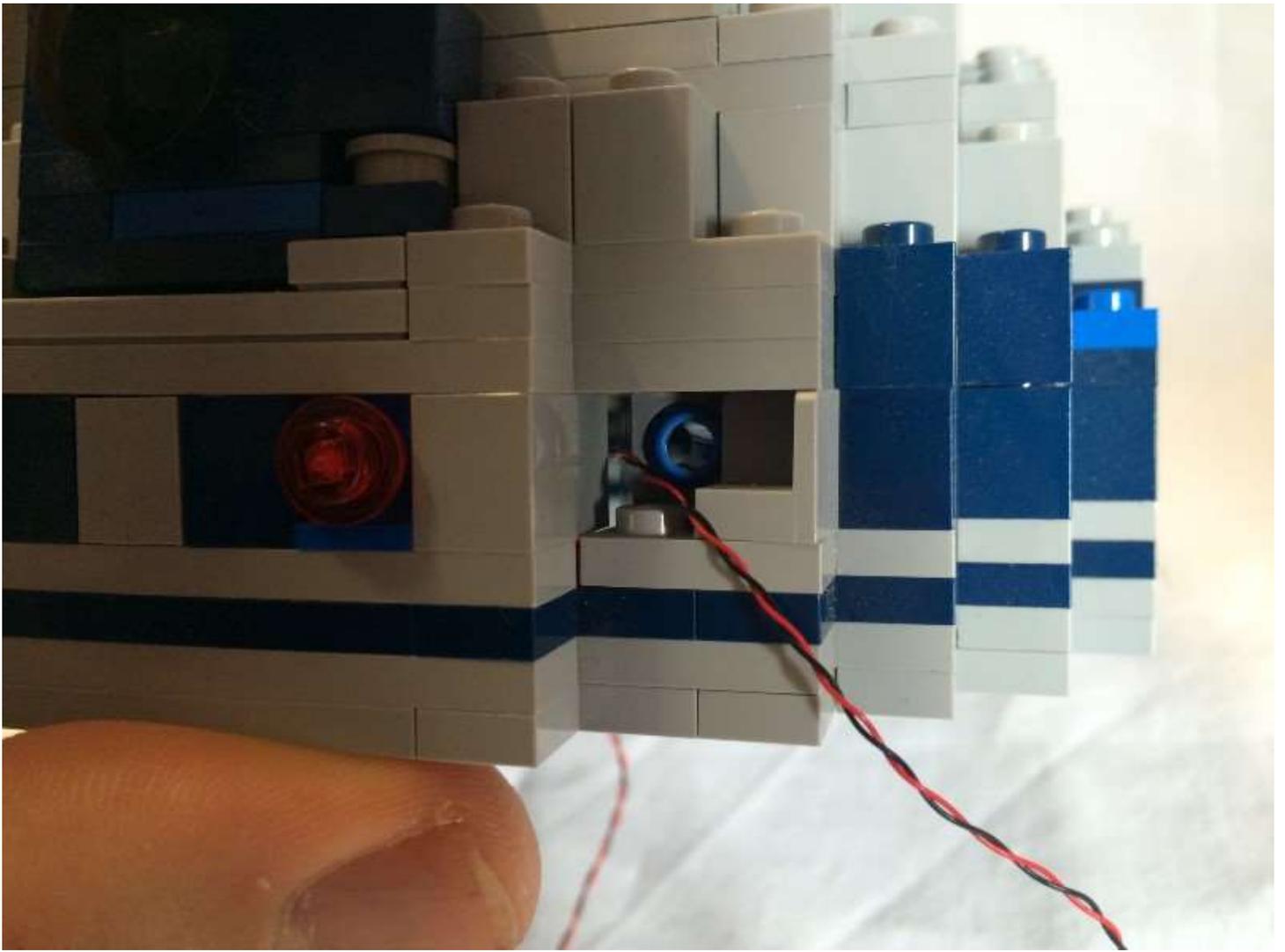
Pry the pieces apart until there is enough room to thread the plug end of the remaining bit light through.



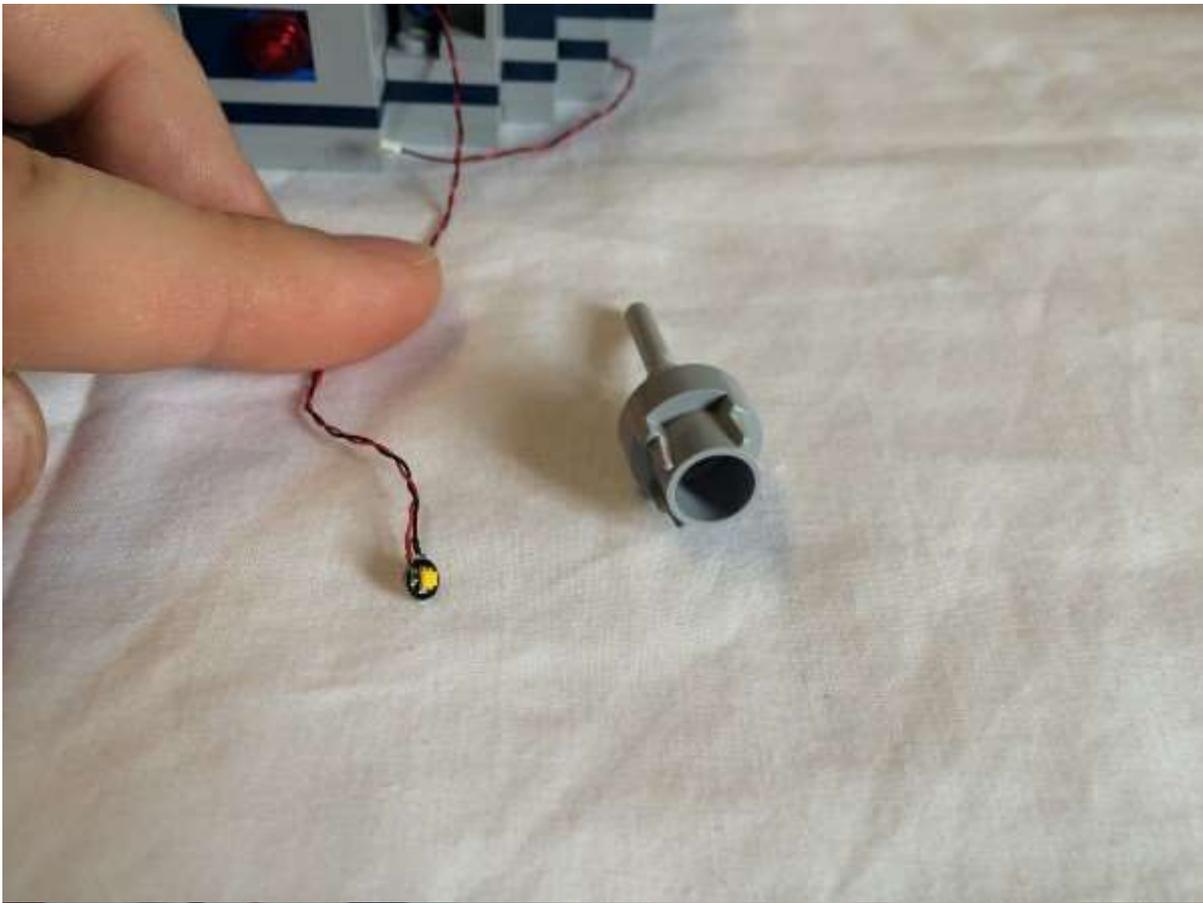
Push a few inches of the wire through and let the wire rest next to the grey brick with the blue technic pin in it.



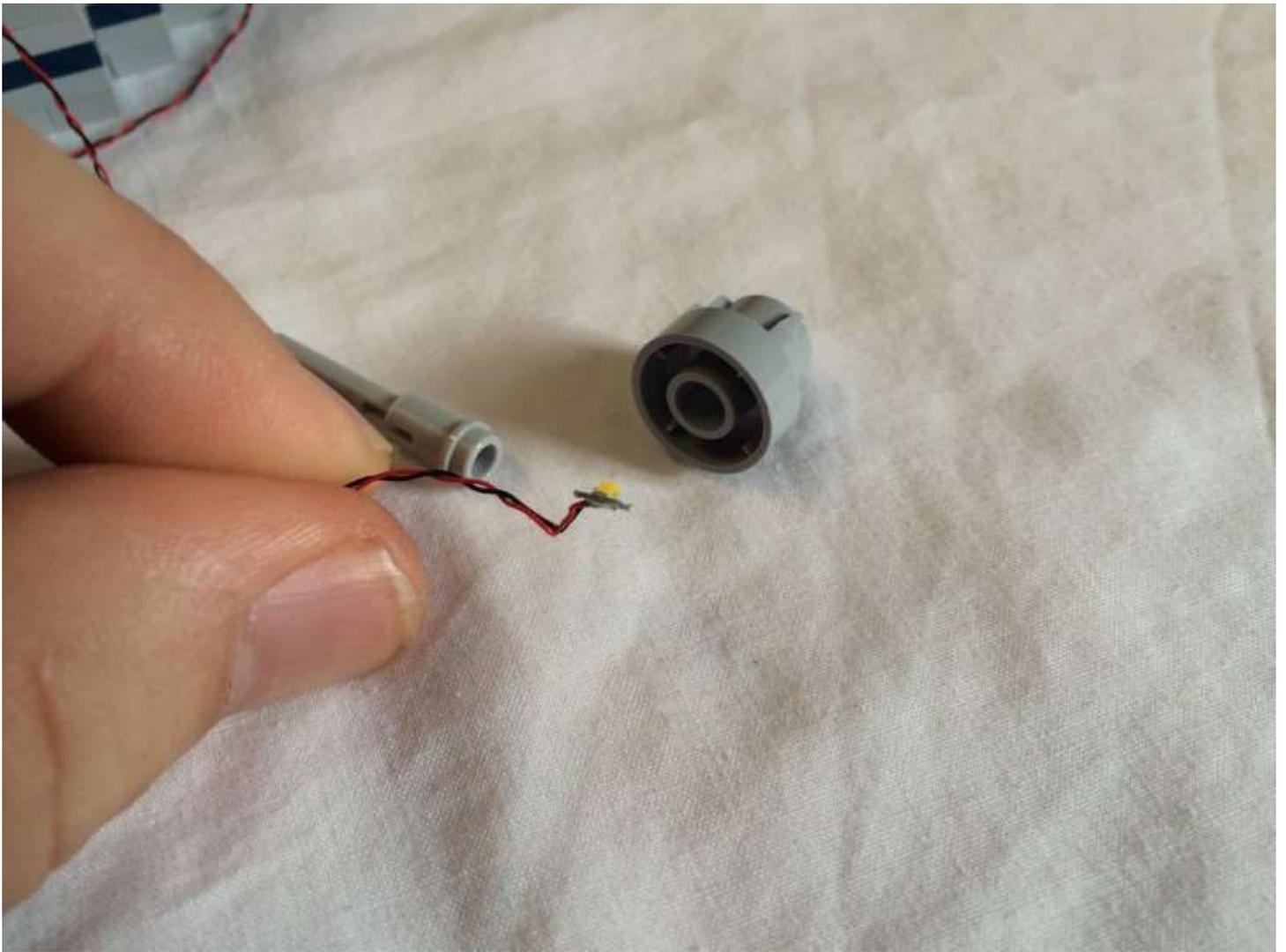
Press the pieces back together. The wire will be able to freely move in the gap.



The projector piece we removed is actually two pieces. Pull those pieces apart.



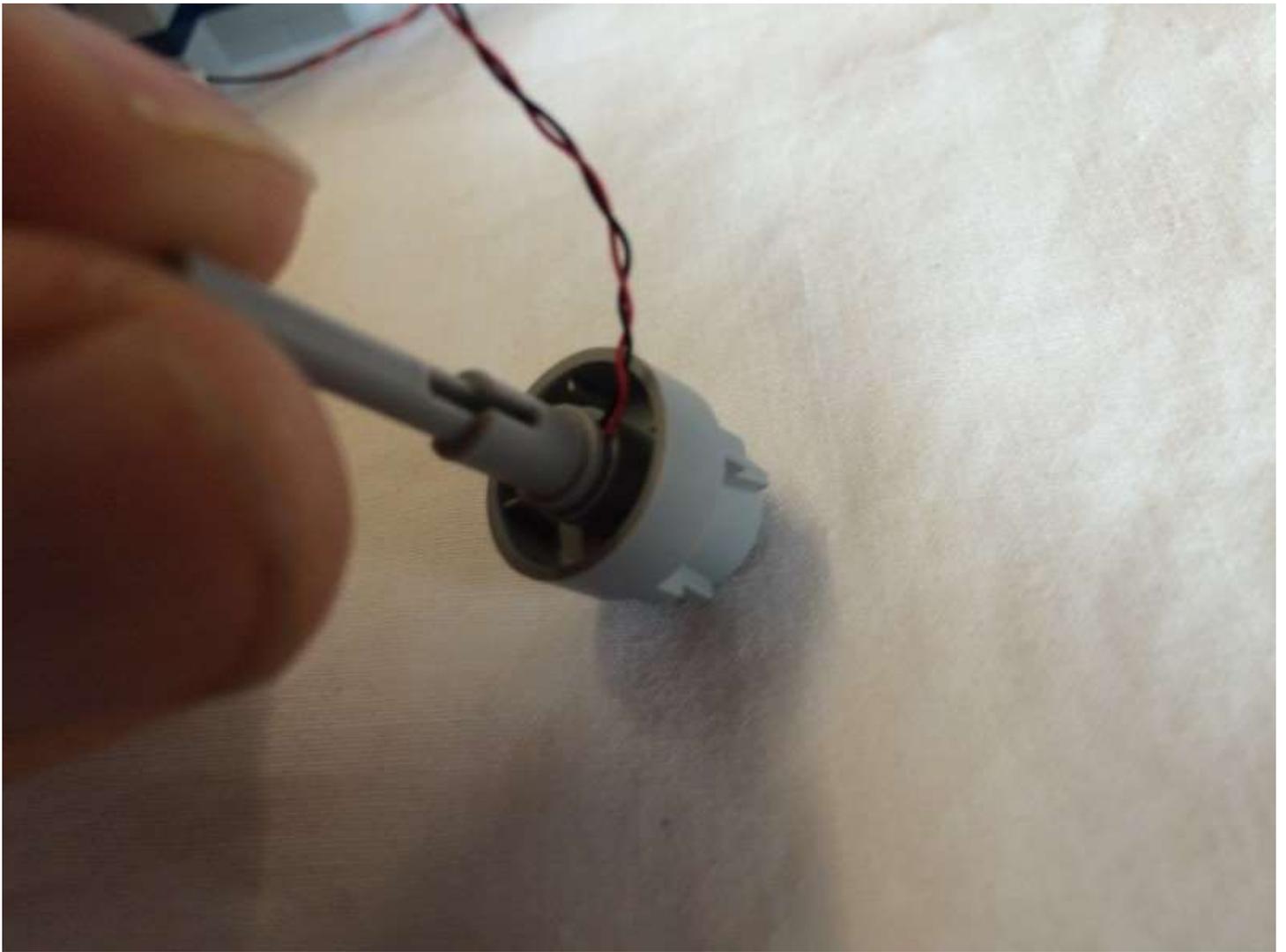
We are going to place the bit light inside the larger round piece making sure that the LED faces away from the hole we will put it in to. Gently bend the wires until it resembles the image below:



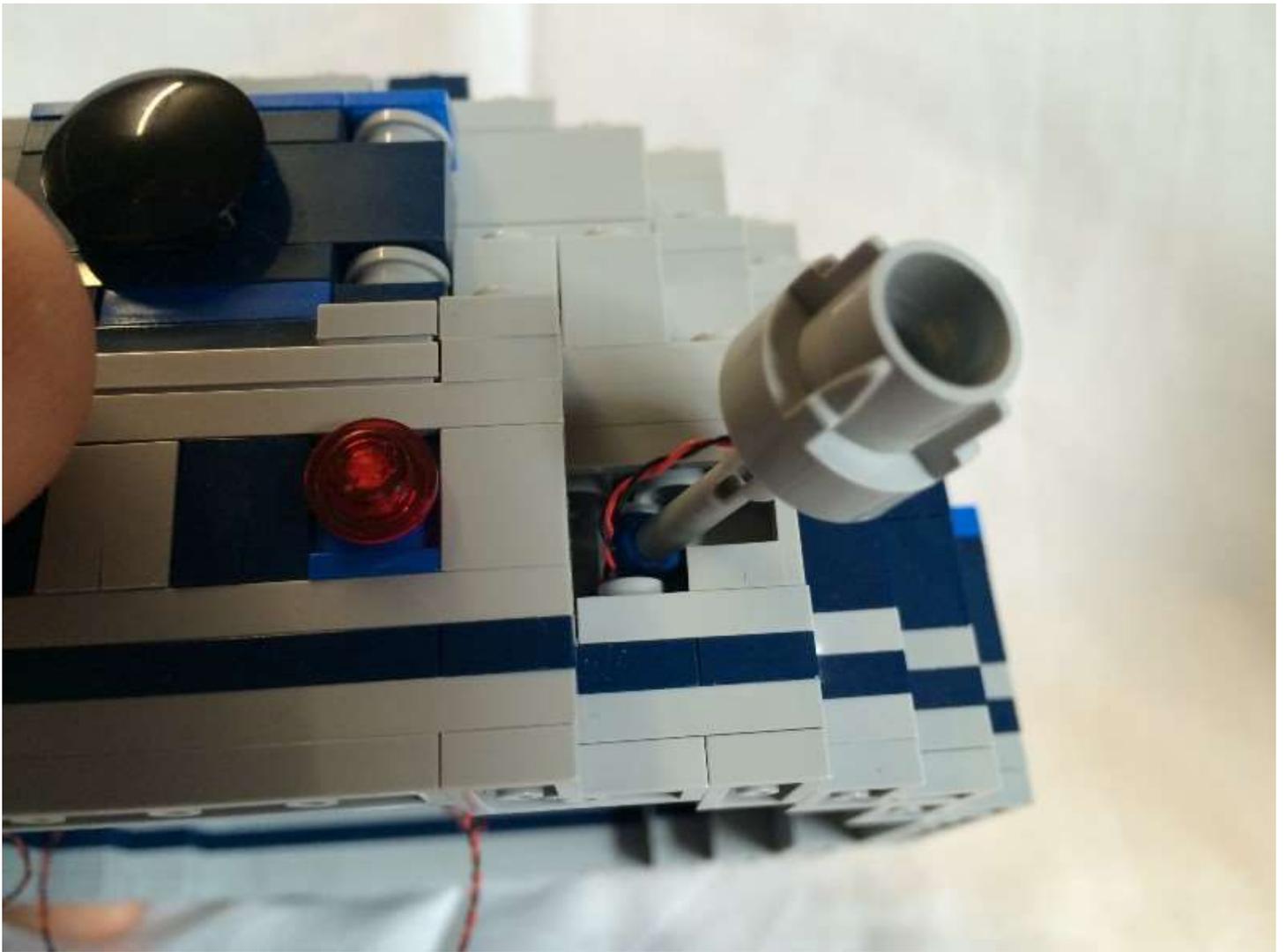
Place the bit light into the round space on the larger round piece just far enough so that the LED itself is inside the piece.



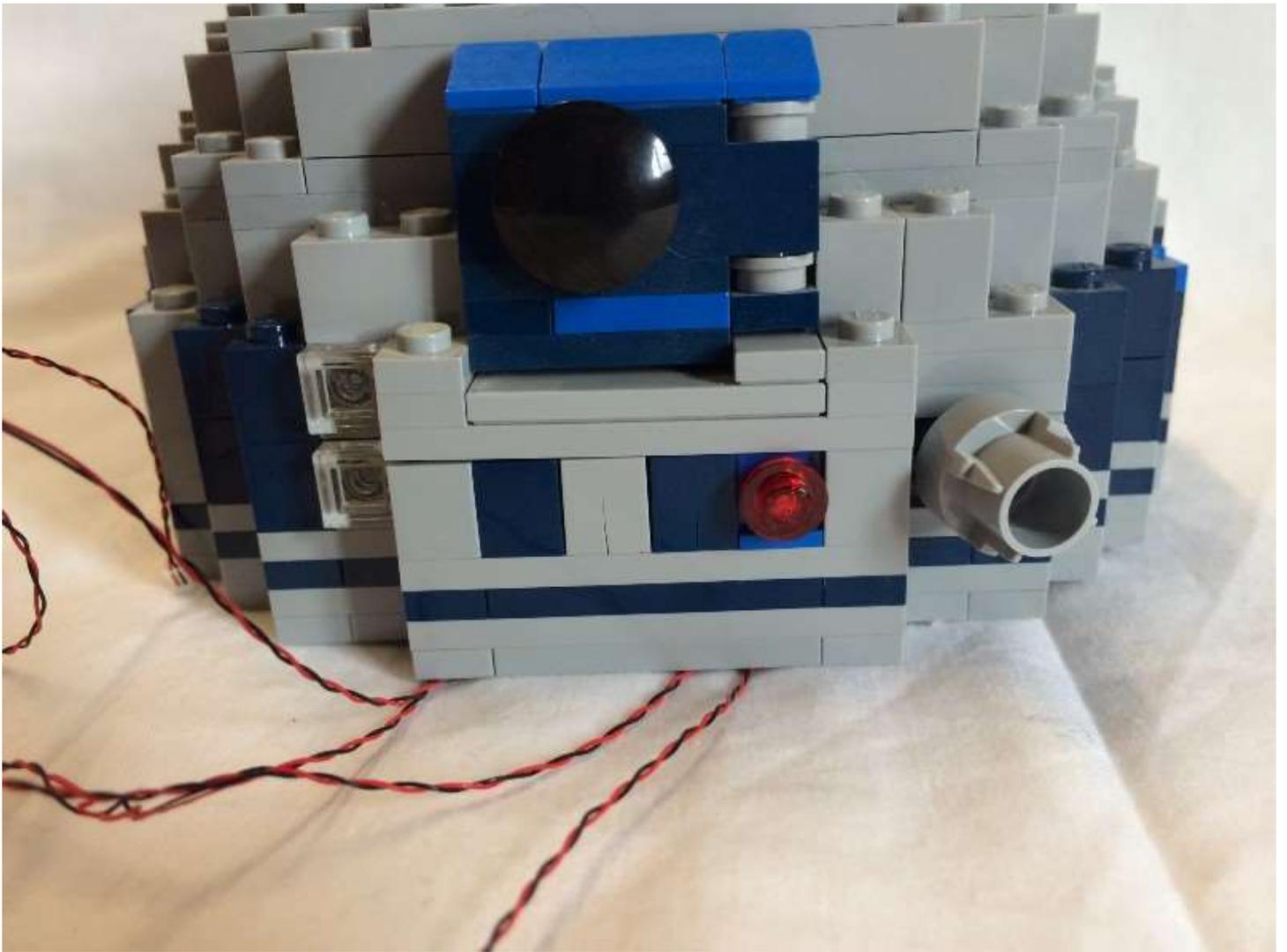
Gently replace the technic rod into the hole where the LED is. It will be a tight fit so you need to do it slowly to prevent damage.



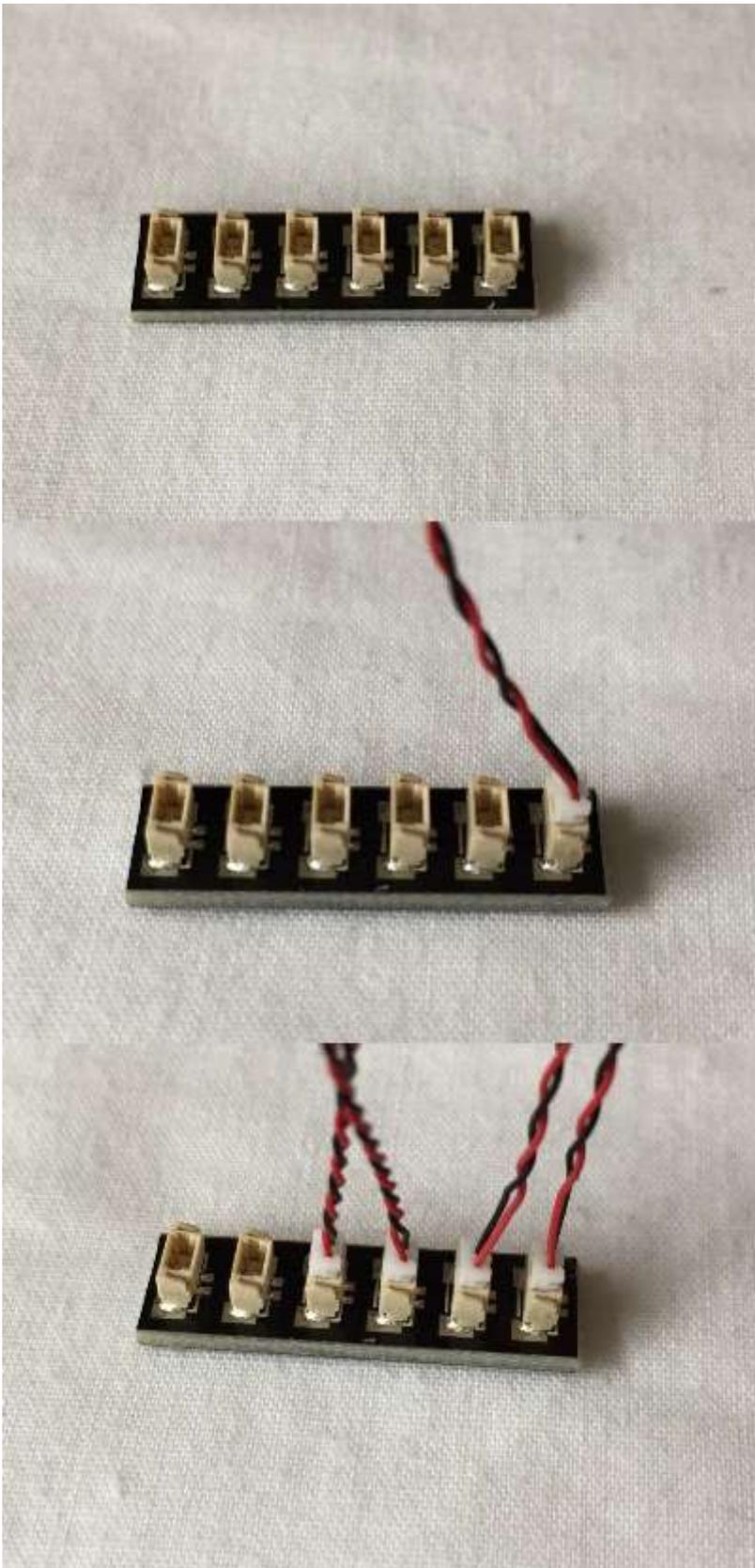
Now you can return the projector piece to its place. Feed the wire back in through gap as you return the projector to its place.



With the projector piece back in place, we have all four LEDs where we want them and four wires hanging out from the inside of R2's head.



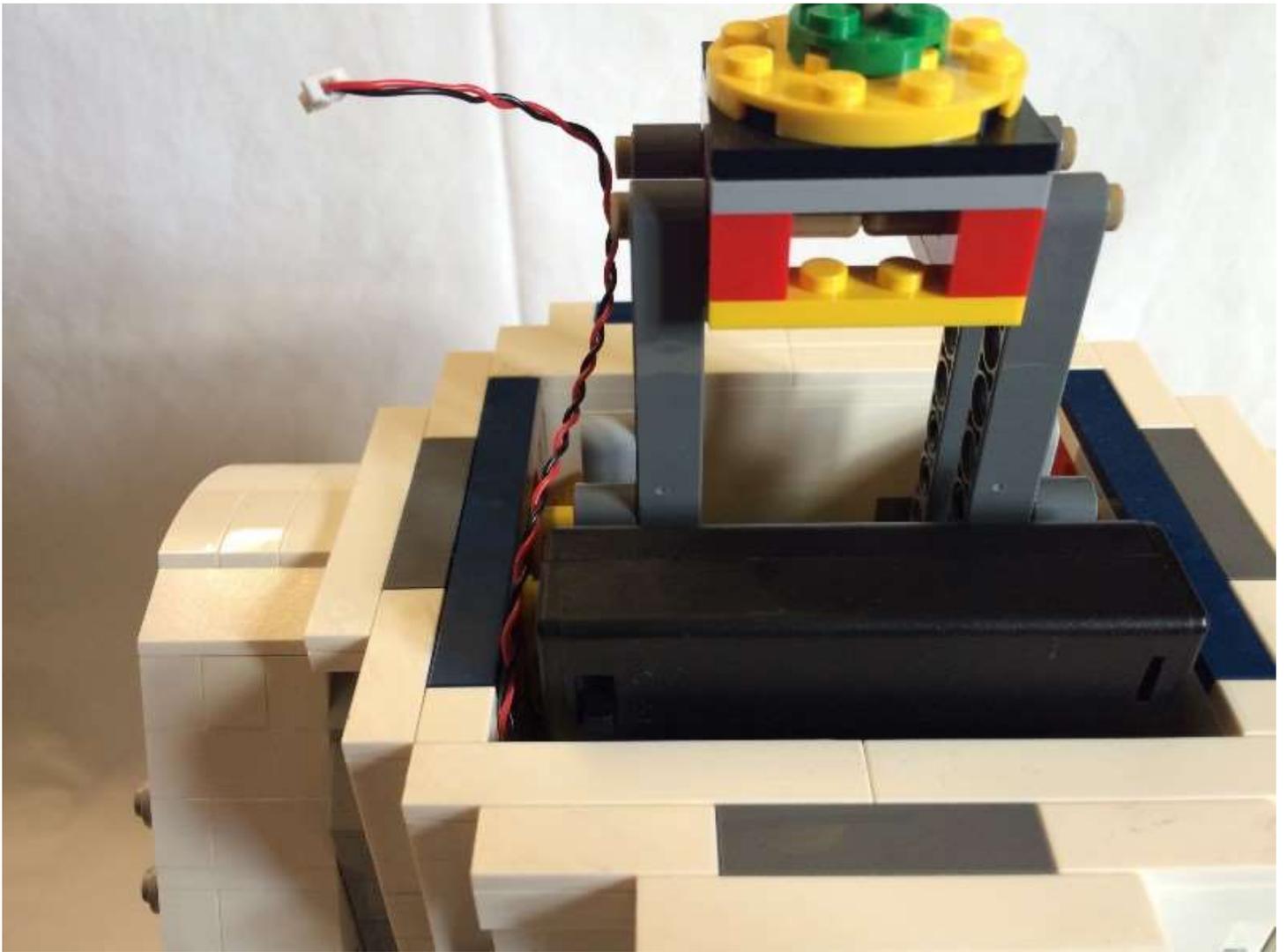
Grab the 6 Port Expansion Board fit each of the plug ends of the bit lights into the board.



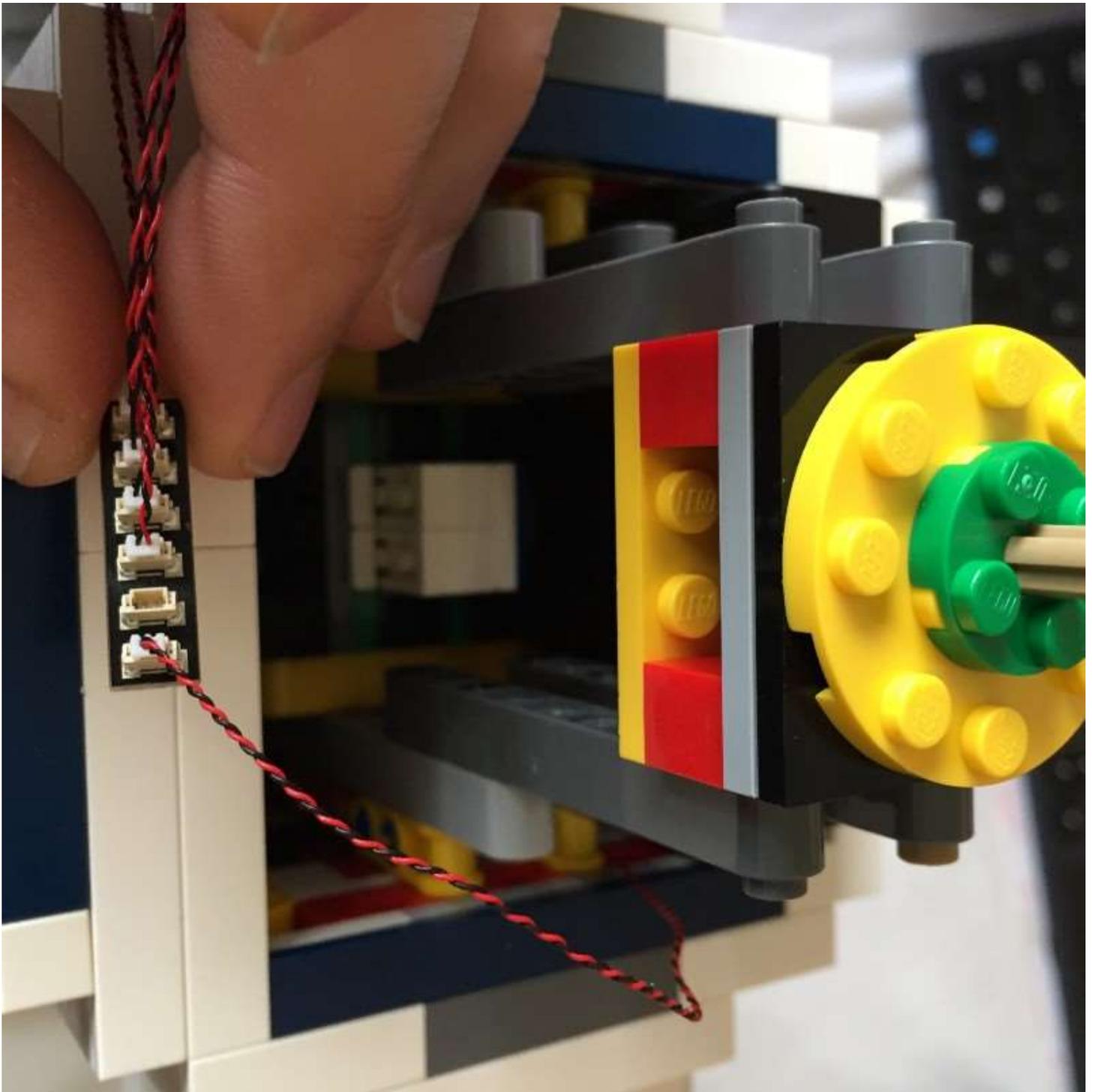
Now get the battery pack



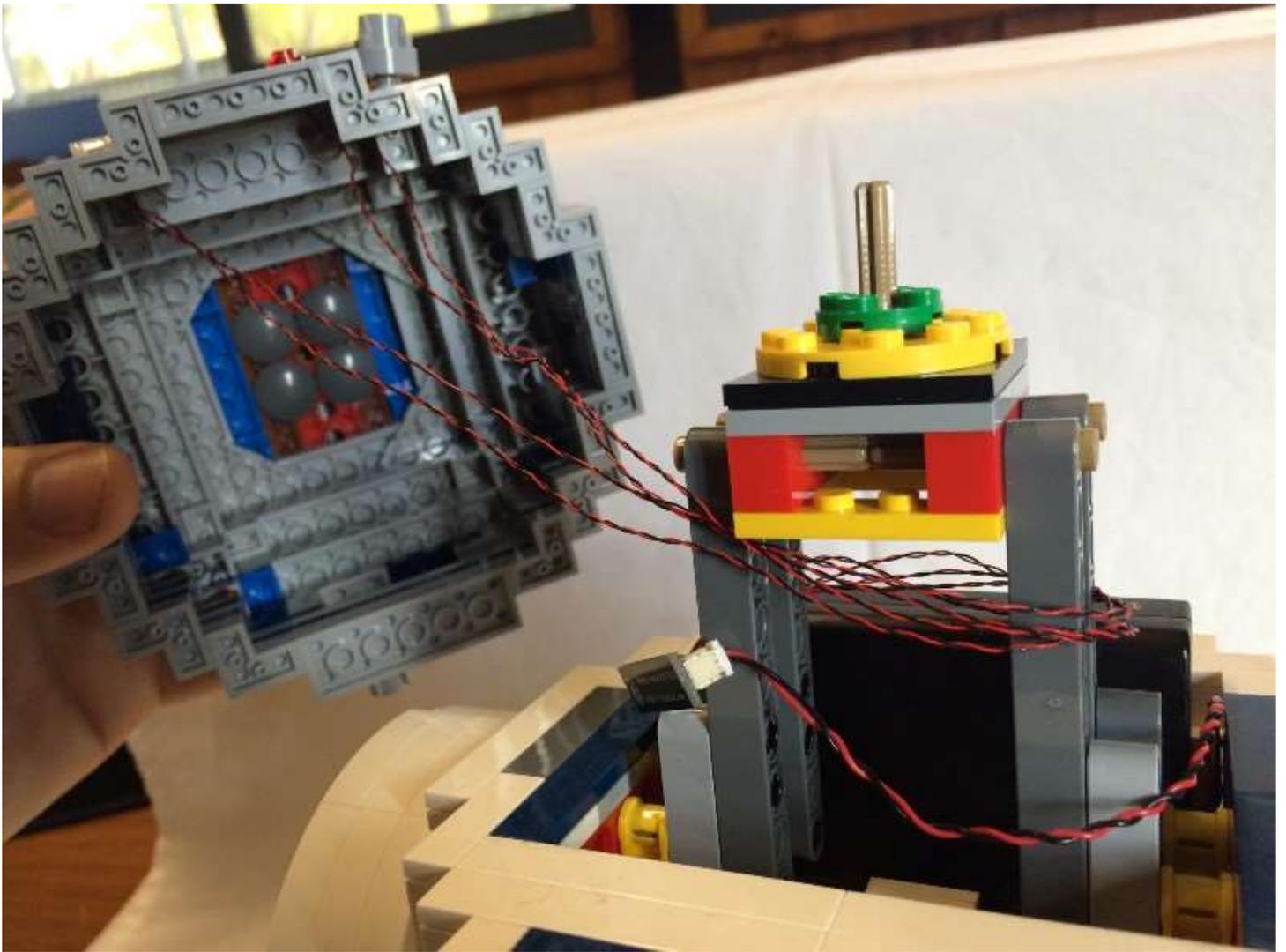
Turn R2 around and sit the battery pack horizontally inside his body with the switch on the high side and facing back towards you.



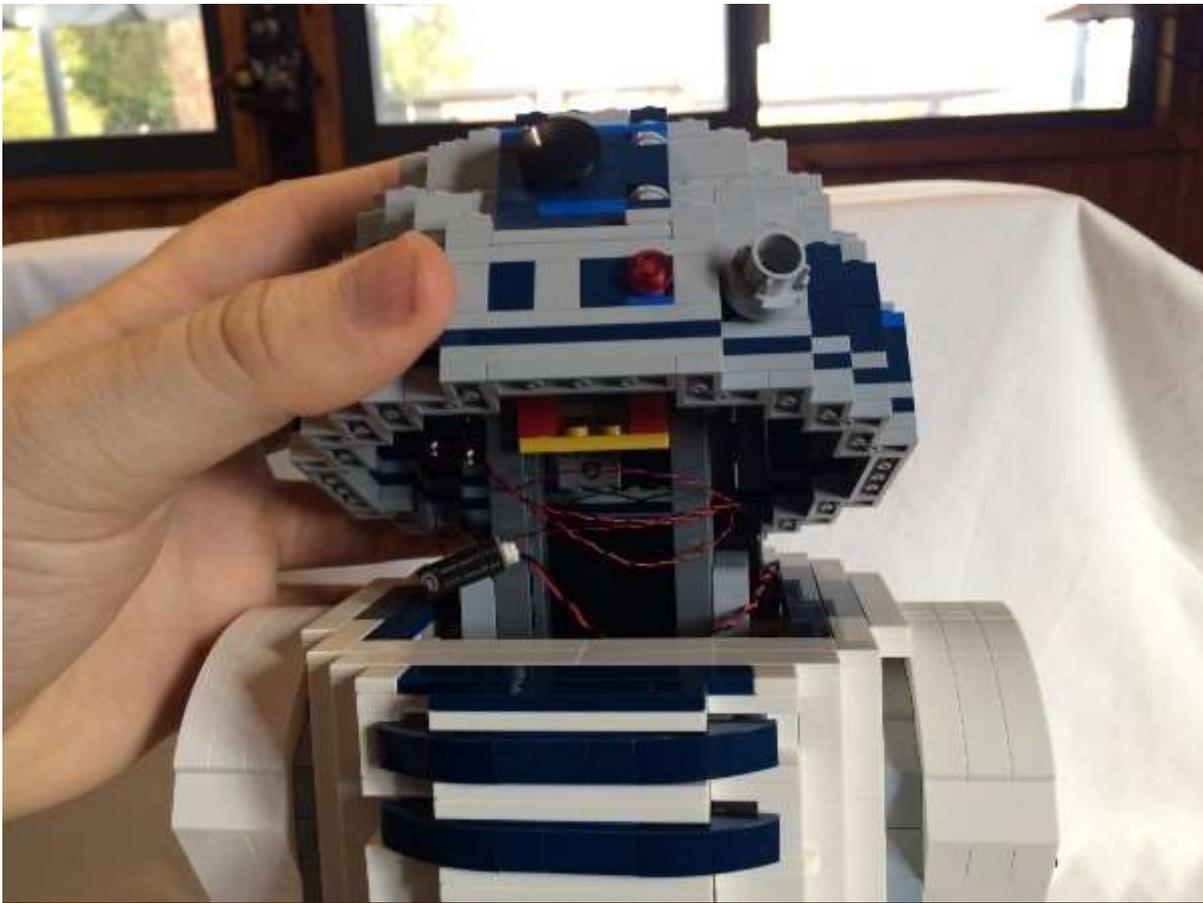
Turn R2 back around and connect the plug from the battery pack to the 6 port expansion board.



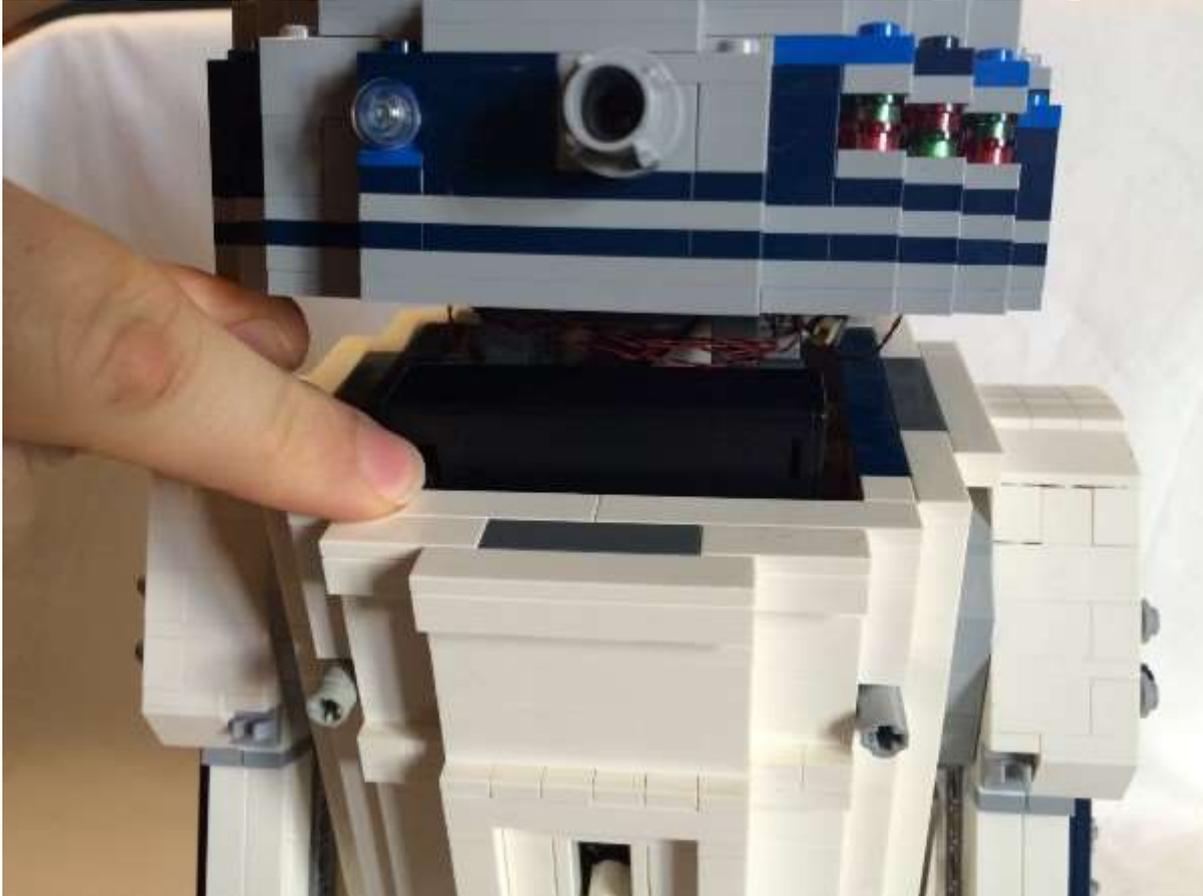
You'll see that there is an excess of wire from the bit lights to the 1:4 expansion adaptor. You can gather these up in whatever way you choose. One way is to wrap the wires around the centre pieces in R2 as seen below:



Caution: Do not rotate R2's head after you put it back on. This may pull on the wires and damage them.
Carefully put R2's head back on his body making sure that wires and connectors are clear of the outsider sides of the head.



Congratulations! You're done!
To turn on, gently lift R2's head until you can access the on / off switch.



Flick the switch, pop his head back on, turn him around and enjoy!

