

STEAMBOAT WILLIE #21317 Lighting Kit

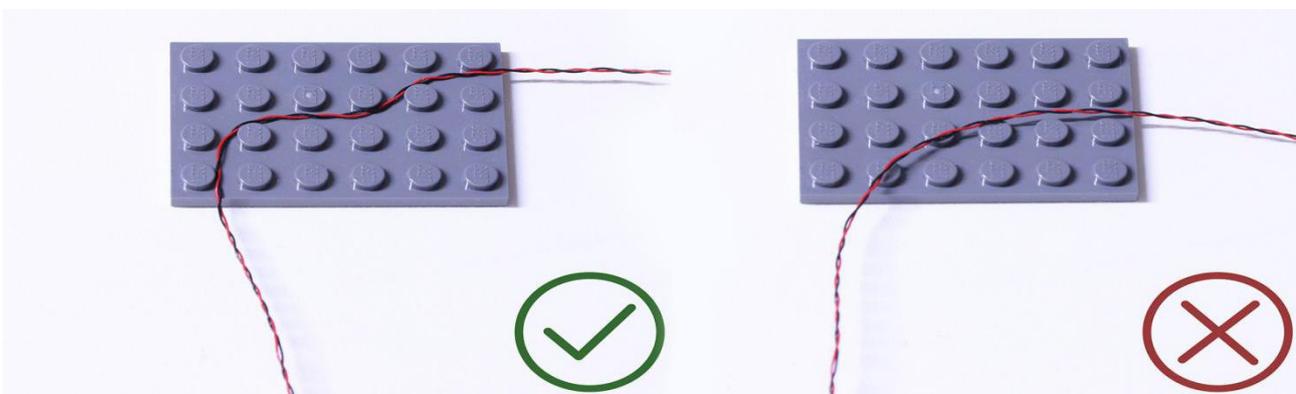
Package contents:

- 2 x 15cm Blue Dot Lights
- 11 x 15cm Warm White Dot Lights
- 1 x 30cm Warm White Light
- 1 x 30cm Connecting Cable
- 1 x 8-port Expansion Board
- 2 x 6-port Expansion Boards
- 2 x USB Power Cables
- Extra LEGO pieces

Note:

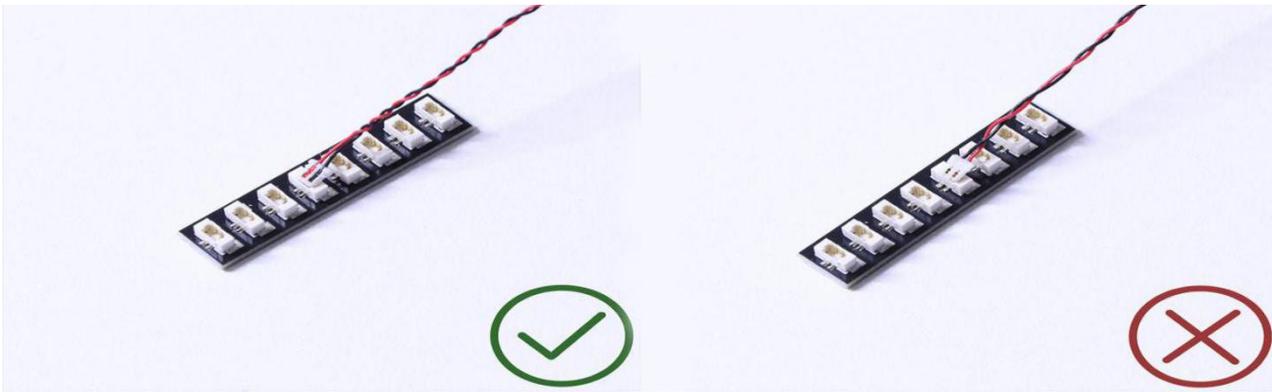
Place wires on the surface or under the LEGO building blocks.

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

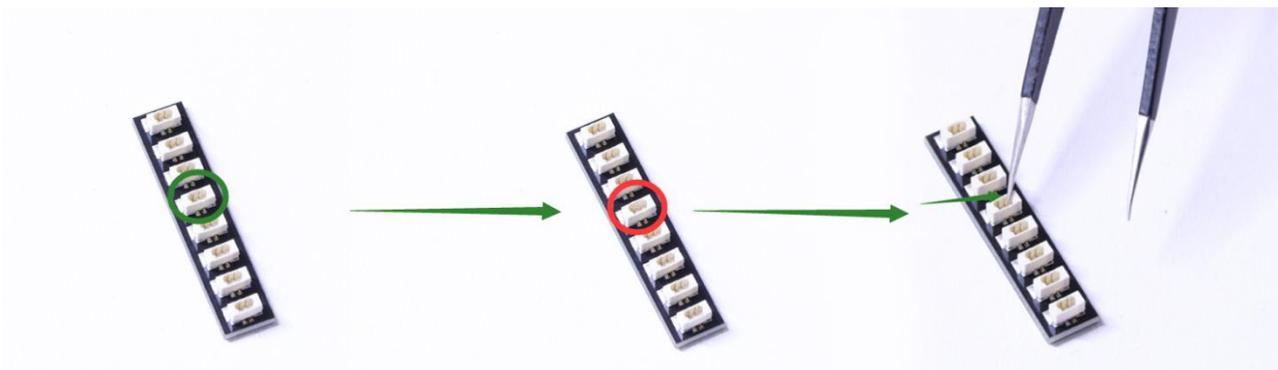


Insert the connectors to the ports.

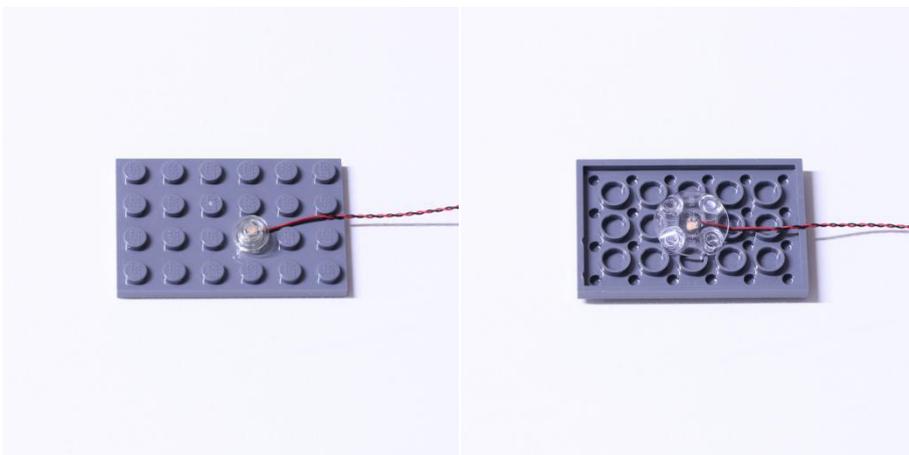
Be careful when you are operating, there's only one correct way to insert, make sure the expansion board is upward, find the soldered "=" sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the "=" sign and if you feel hard to insert, please stop,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



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

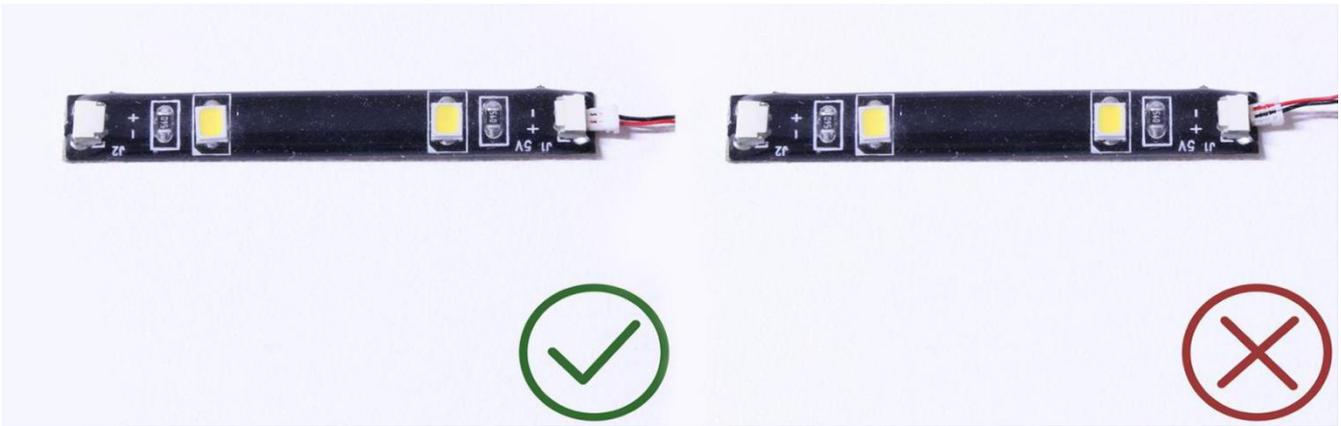


When installing dot lights, make sure they are correctly placed (Yellow LED package is exposed). You can put them either on the top of the studs or between studs.

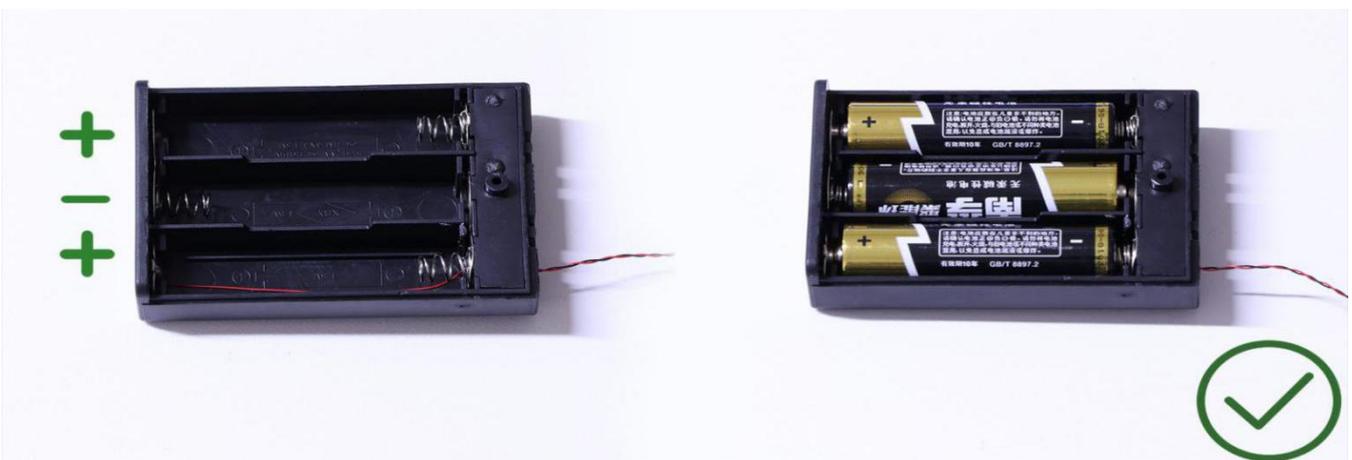


Connecting cable connectors to Strip Lights

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



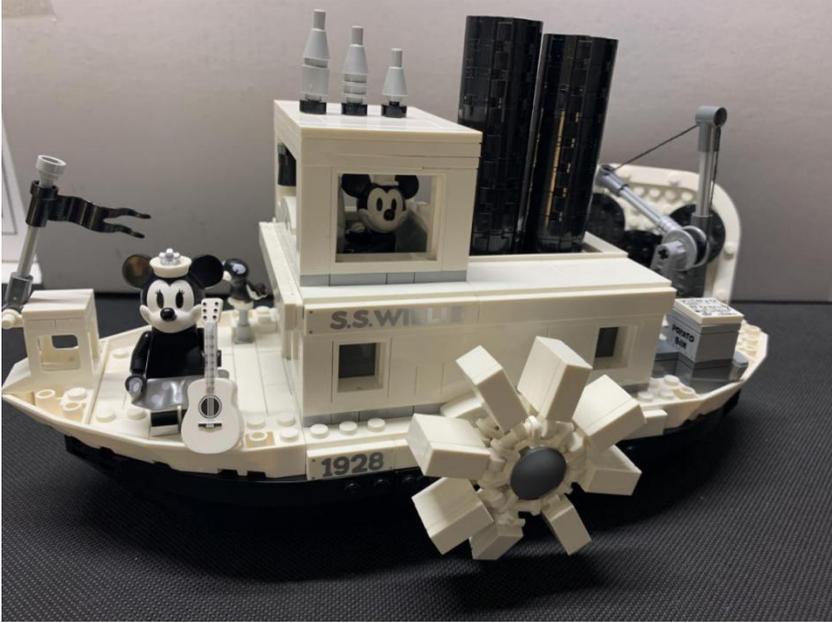
Finally, please pay attention to the positive and negative terminals of the battery when installing the battery case.



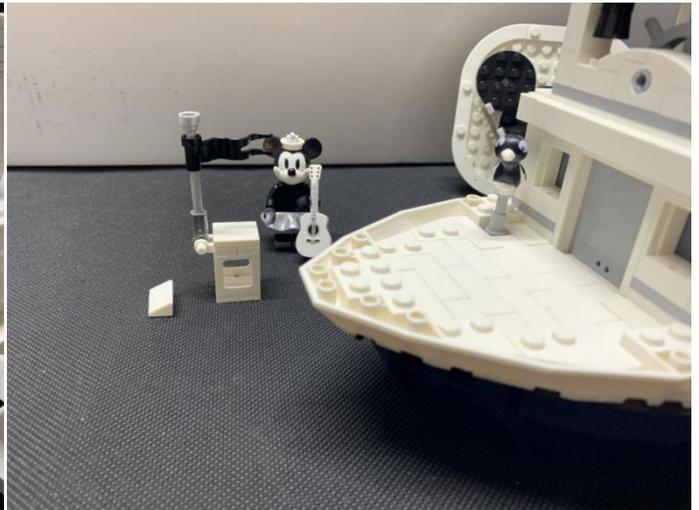
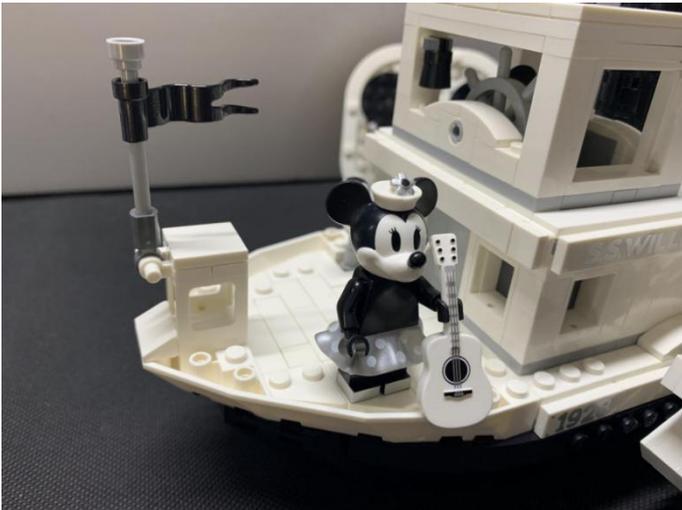
OK, Let's Begin!

Instructions for installing this kit

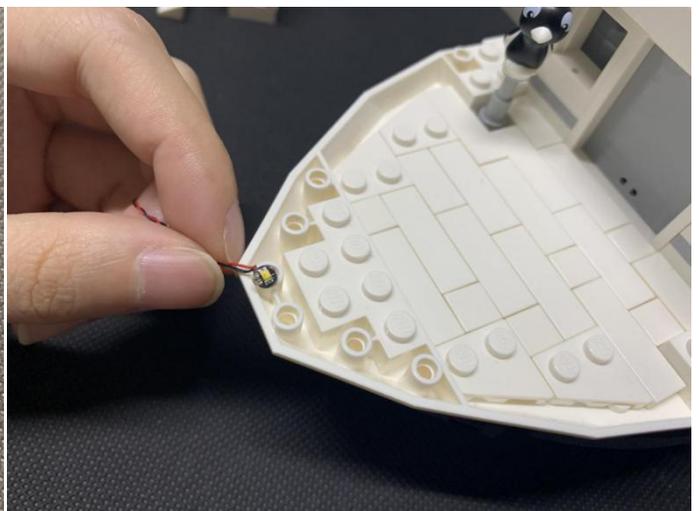
Start from installing lights for the Steamboat Willie

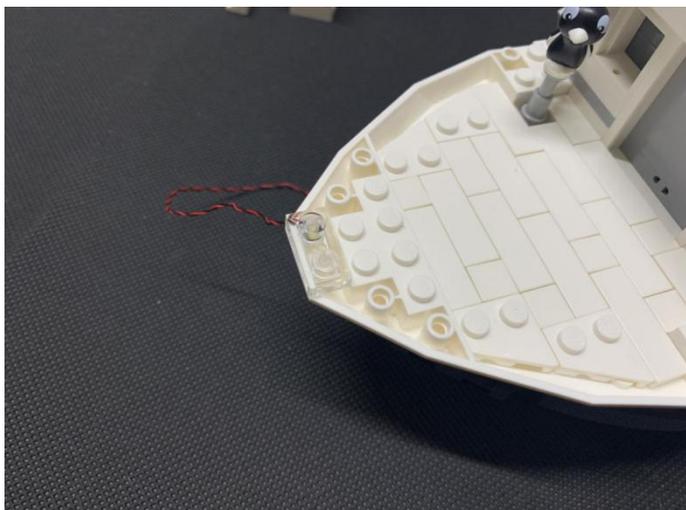


Begin with the head. Remove the flag and the following pieces

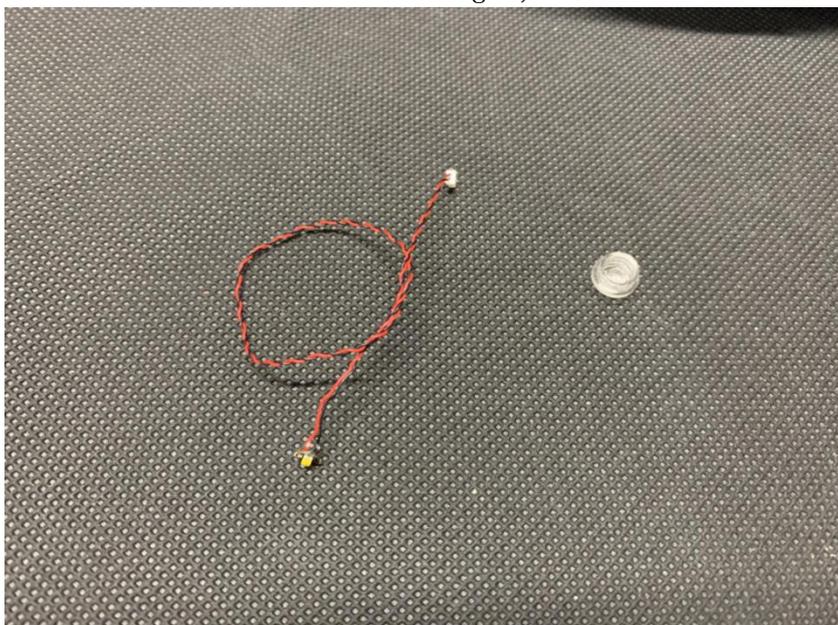


Take a 15cm warm white dot light, a trans 1x2 plate, with lighting part facing up, secure the light to the following place by connecting the trans plate over. Connect the white 1x2 slope plate over the trans plate. Reconnect other pieces

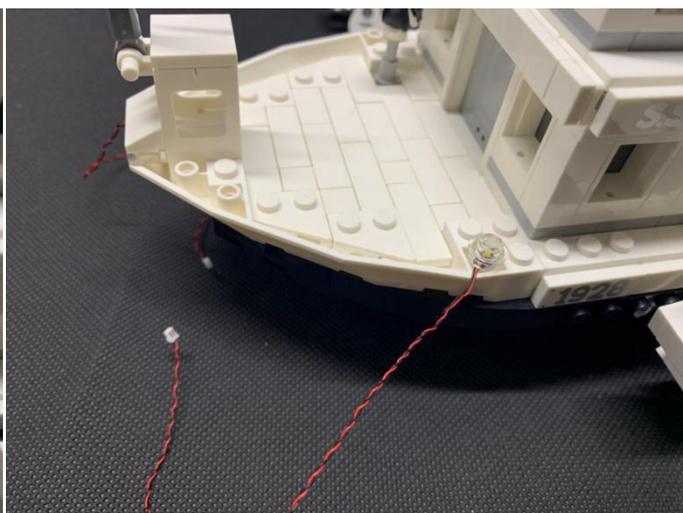
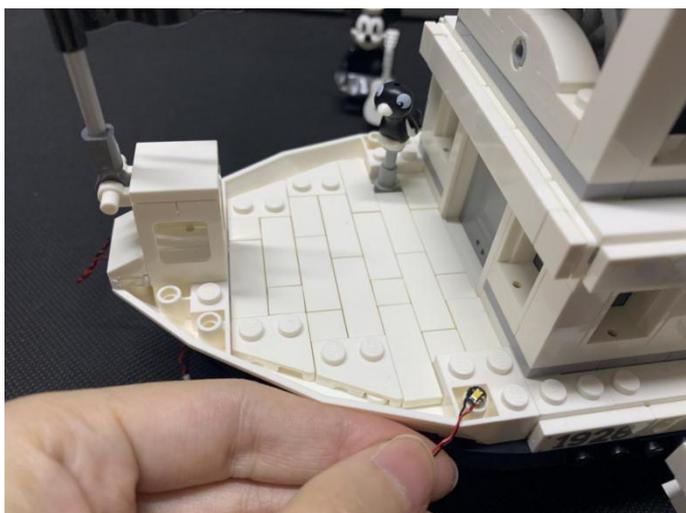




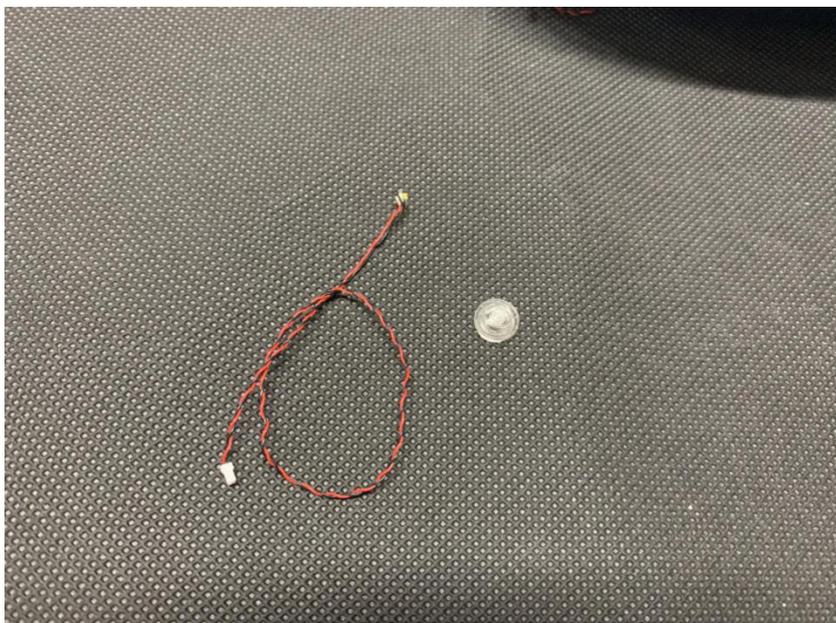
Take a warm white 15cm dot light, a white 1x1 trans round plate



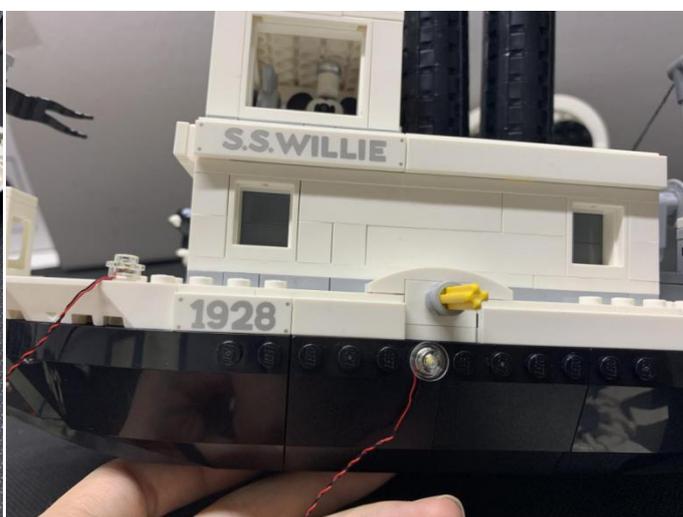
Connect the light to the following place



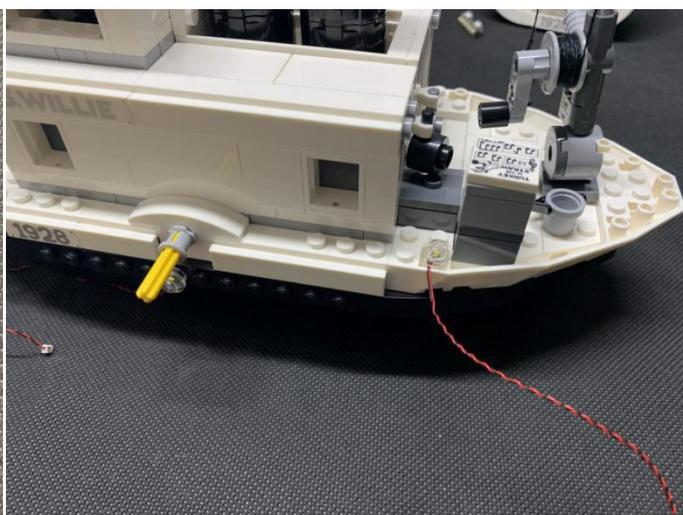
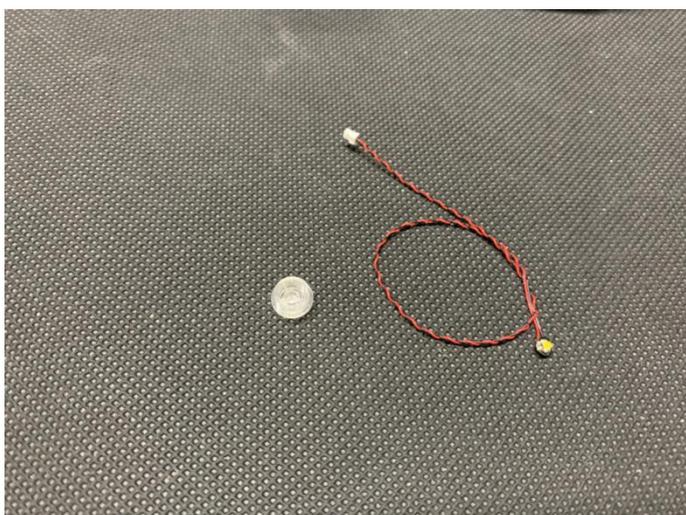
Take a warm white 15cm dot light, a trans 1x1 round plate



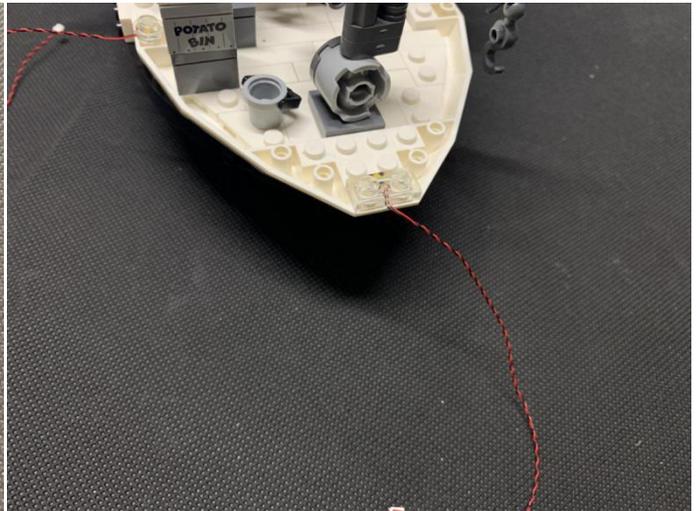
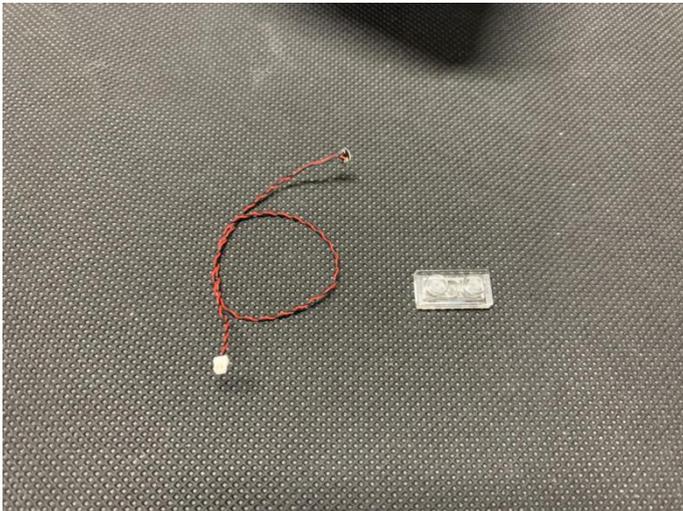
Remove the wheel from one side of the boat, connect the light to the following black piece behind the wheel. Note: do not remove the cross joint while you're removing the wheel.



Similarly, take another warm white 15cm dot light, a trans 1x1 round plate. Connect them to the tail of the boat at the same side



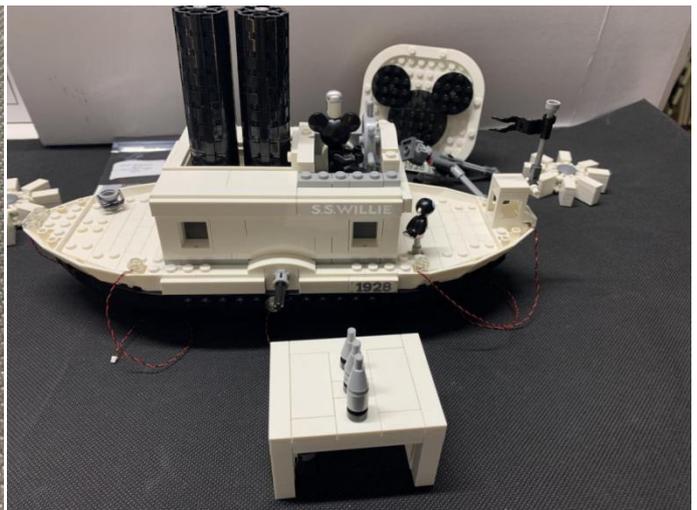
Take a warm white 15cm dot light, a trans 1x2 plate, turn the boat to its back, connect the light to the following place



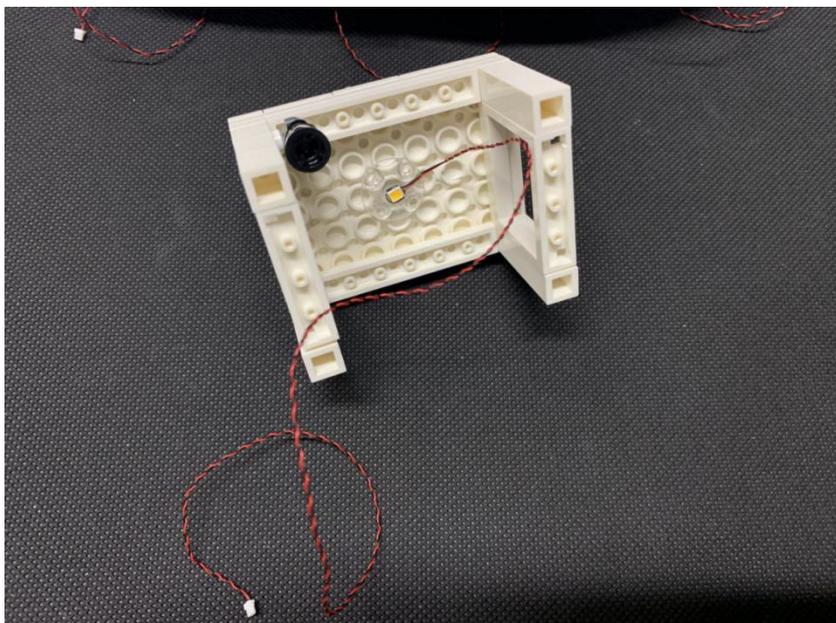
Turn to the other side. Take 3 warm white 15cm dot lights, 3 trans 1x1 round plates, repeat the previous steps to install the lights to the following places



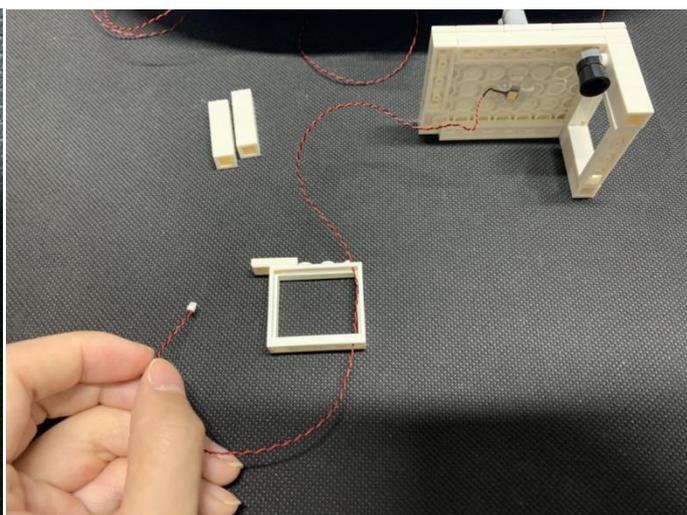
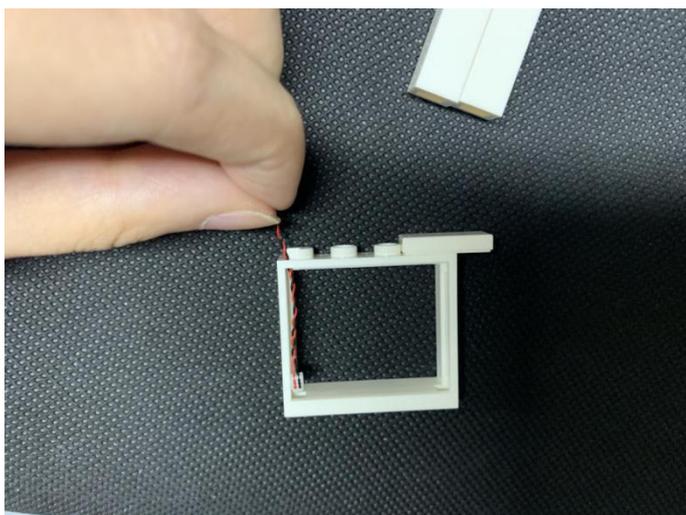
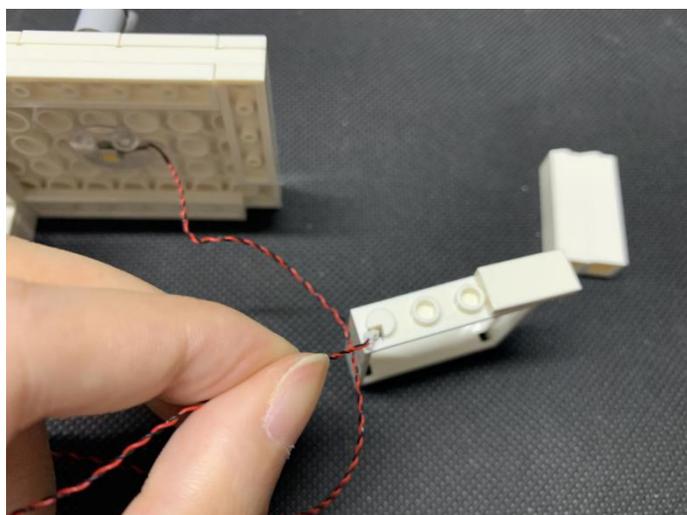
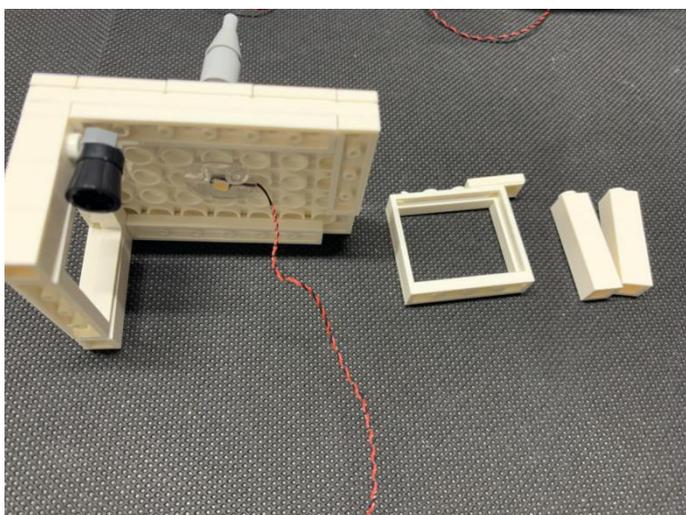
Take a warm white 30cm light, a trans 2x2 round plate. Remove the top from the boat.



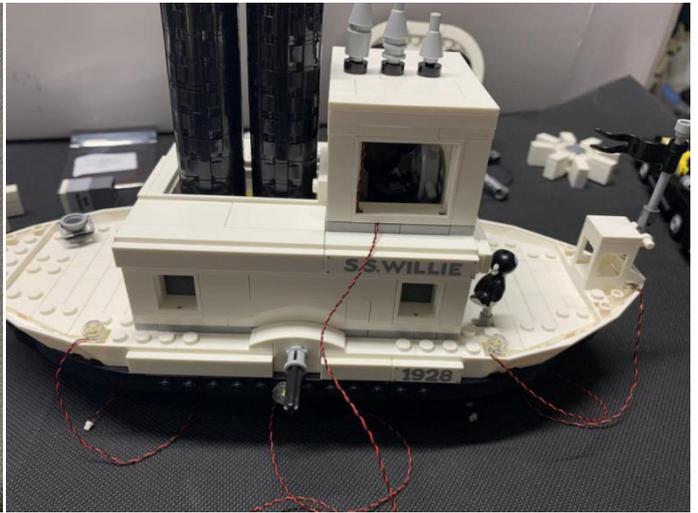
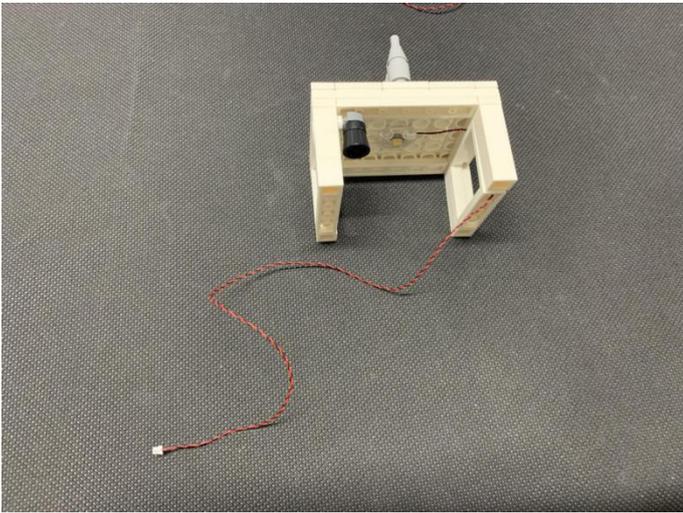
Connect the light to the top part we just removed, as per below



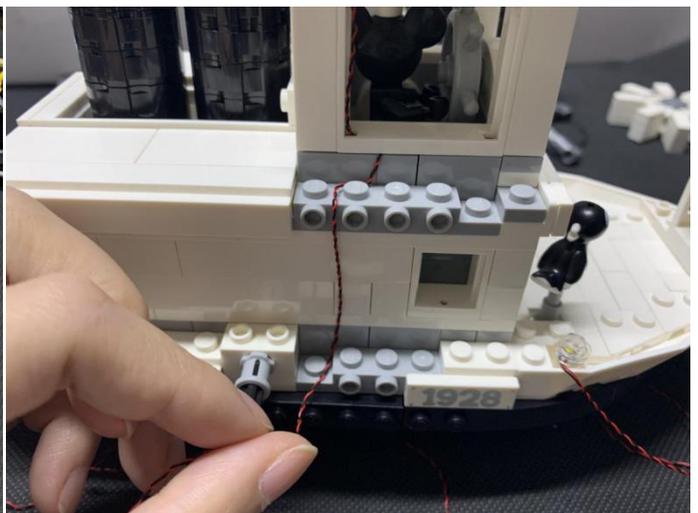
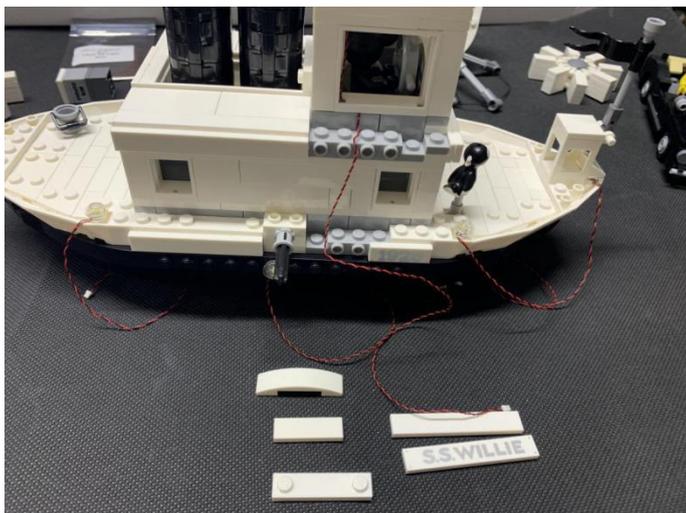
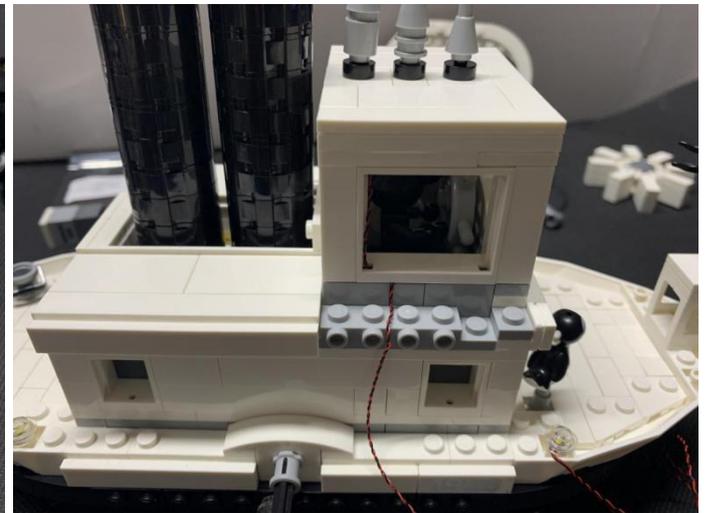
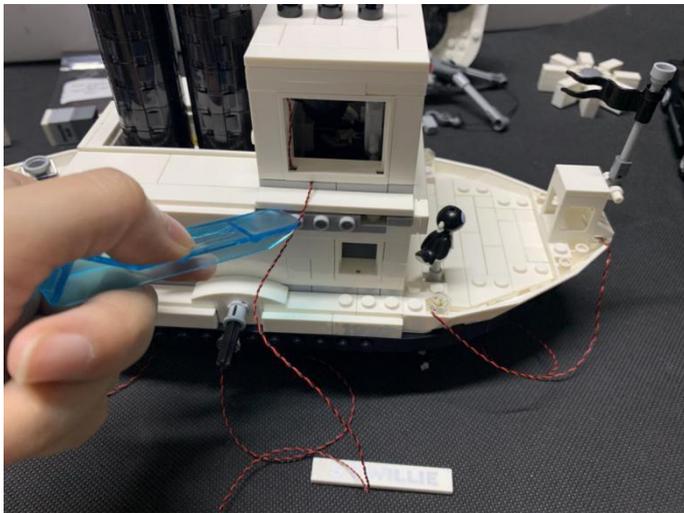
Remove one side of the window pieces, thread the connector of the light through the following holes on the piece, pull it out



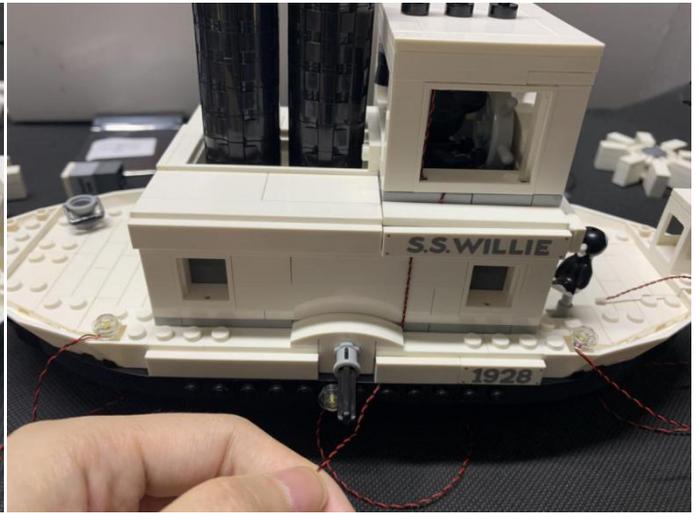
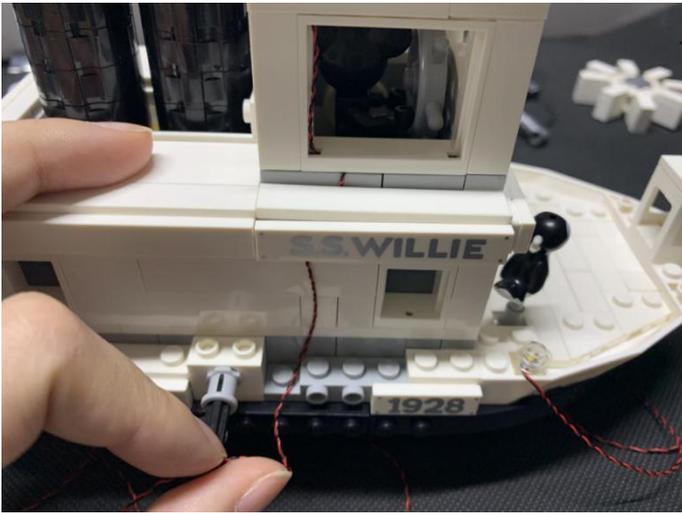
Reconnect the top part, place the cable of the light aside



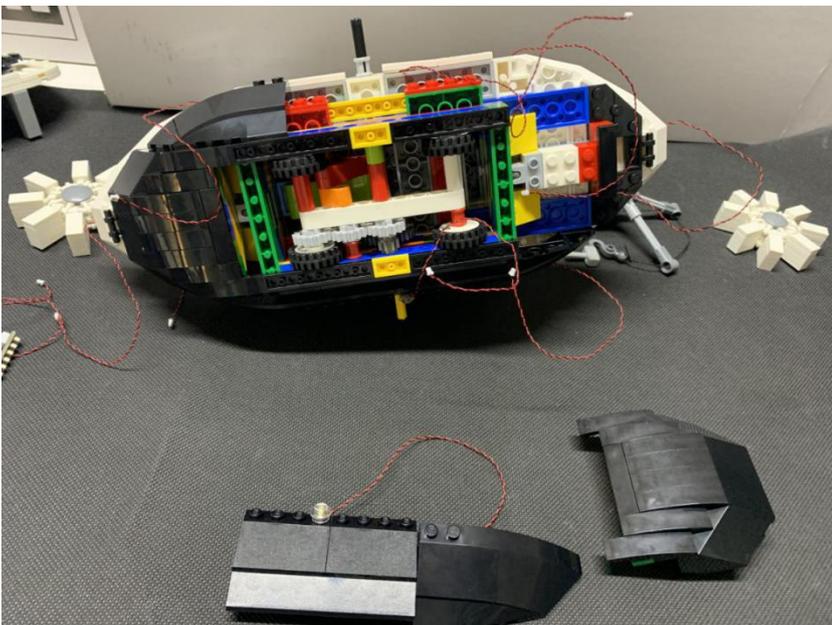
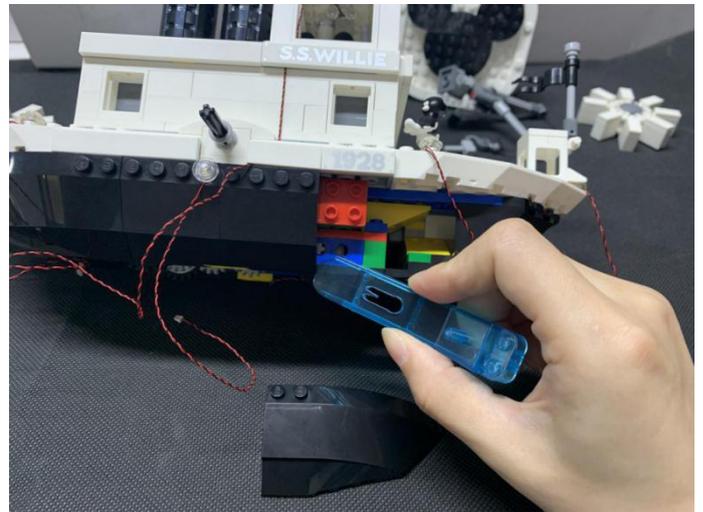
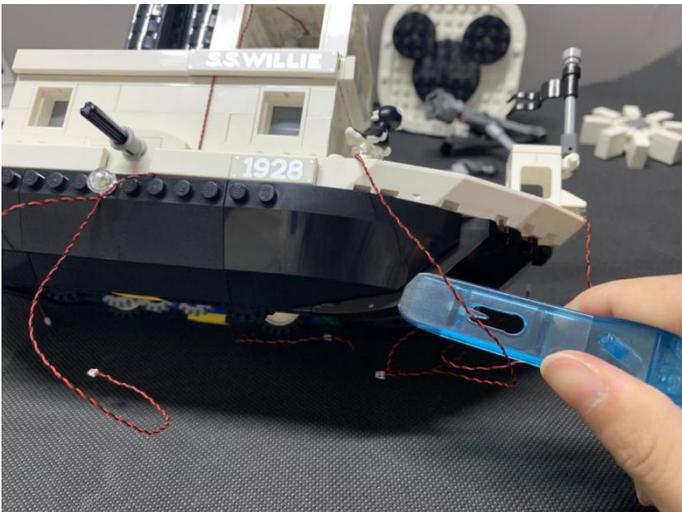
Remove the following white plate, pull the cable toward the bottom of the boat, place the cable in between studs.



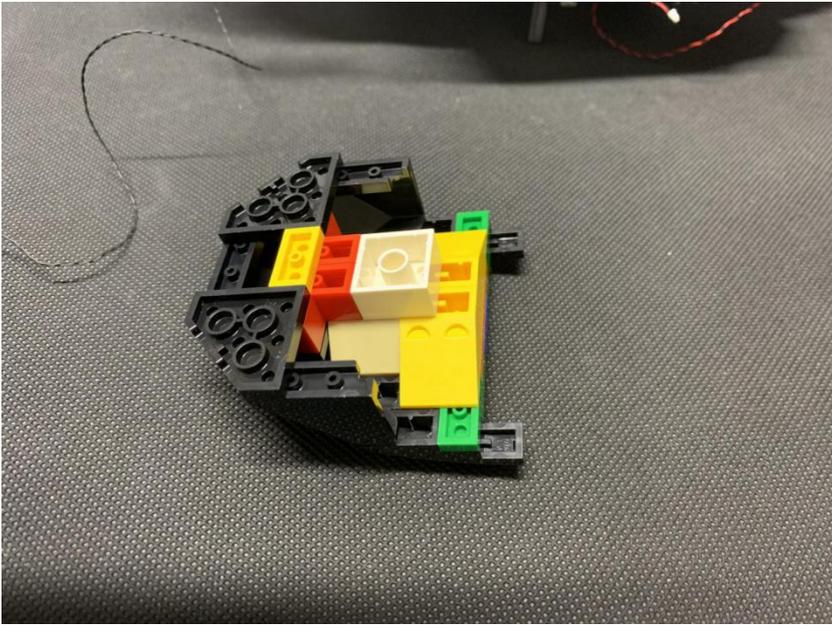
reconnect the plates, hiding the cable underneath.



Turn the boat over to its side, remove the following black pieces from the bottom of the boat



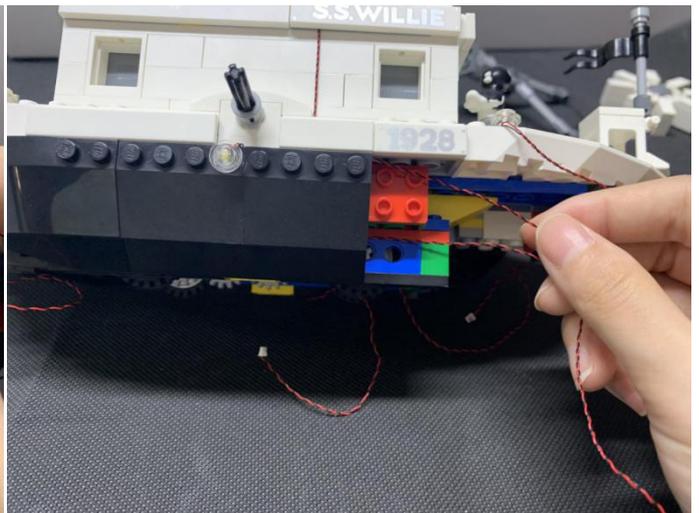
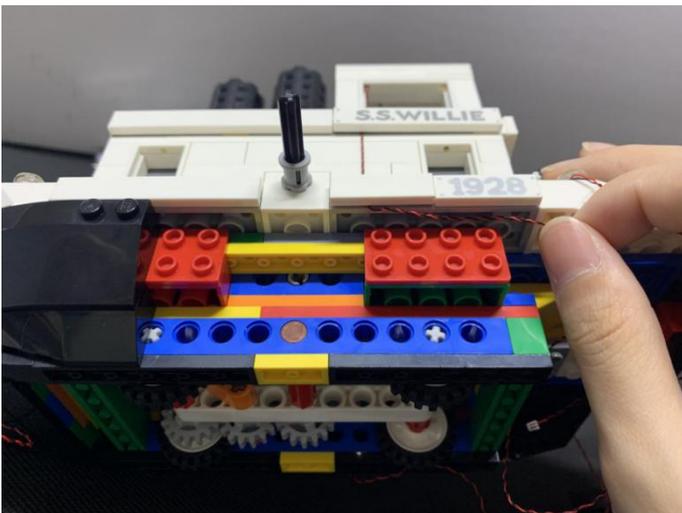
Remove the following piece from the head of the boat



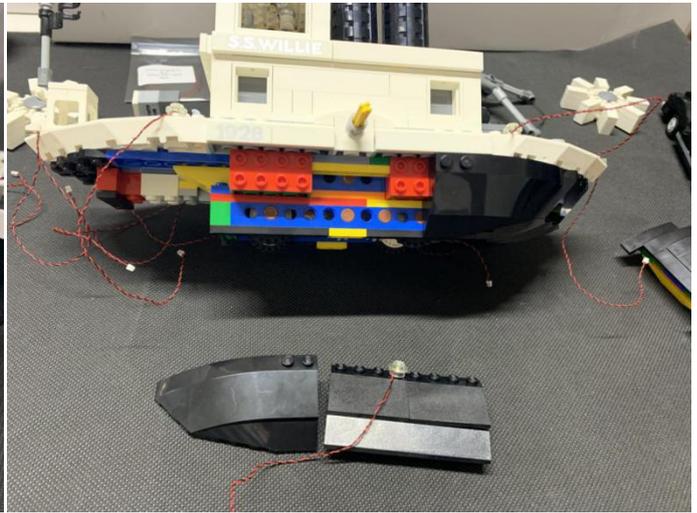
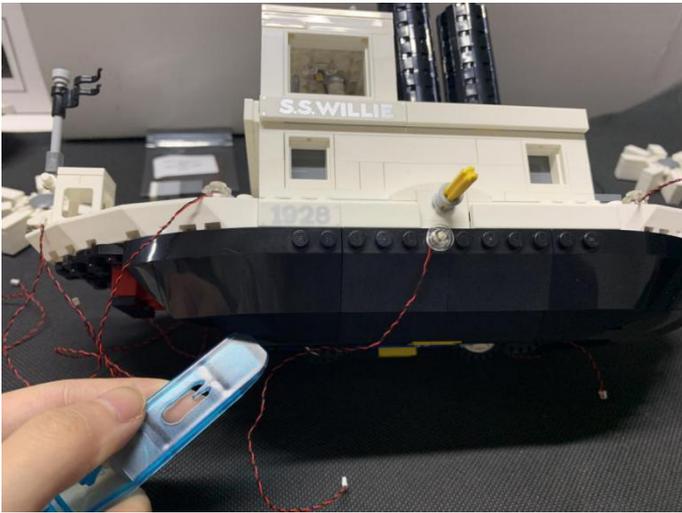
Pull the cable of the following light to the back of the plate



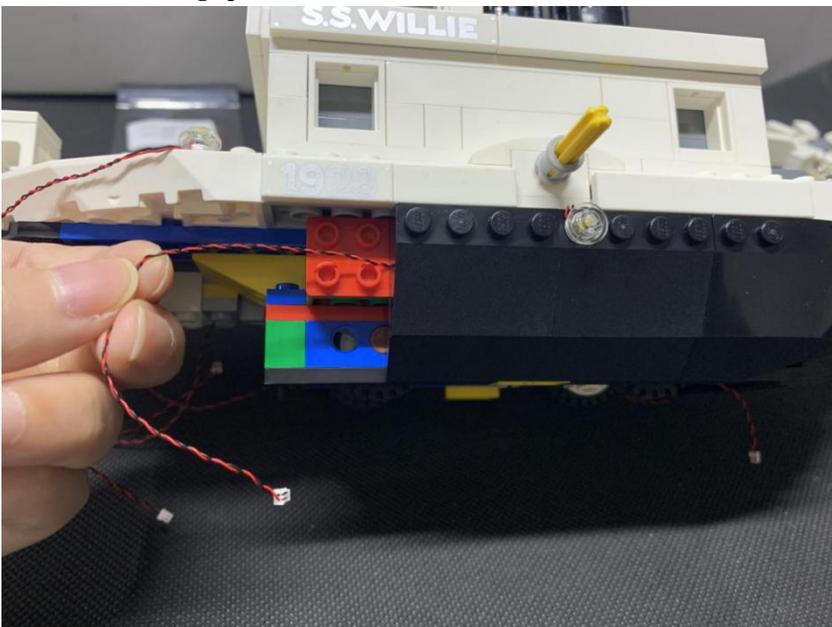
Pull the cable of the light toward the head of the boat, reconnect the black piece, place the cable in between studs



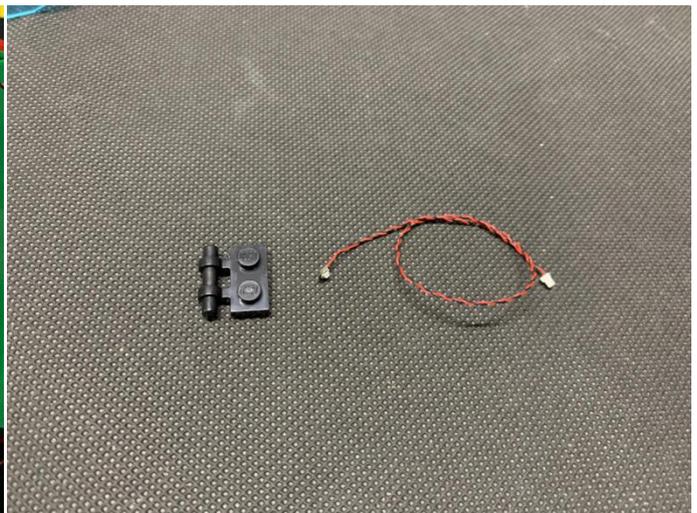
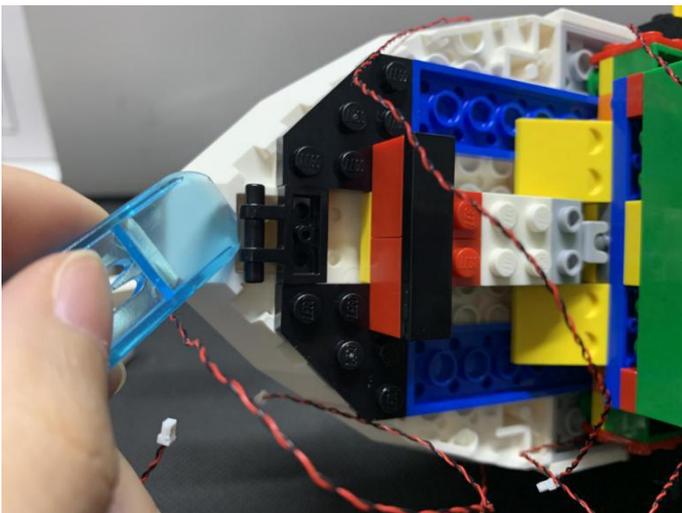
Turn to the other side of the steam boat, remove the following black pieces



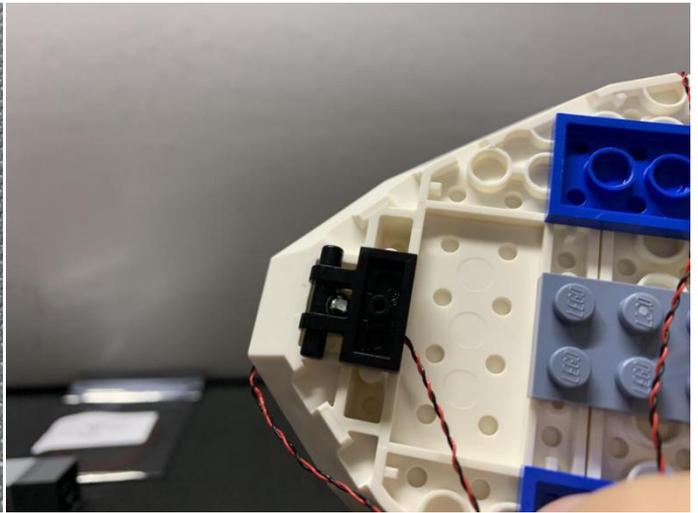
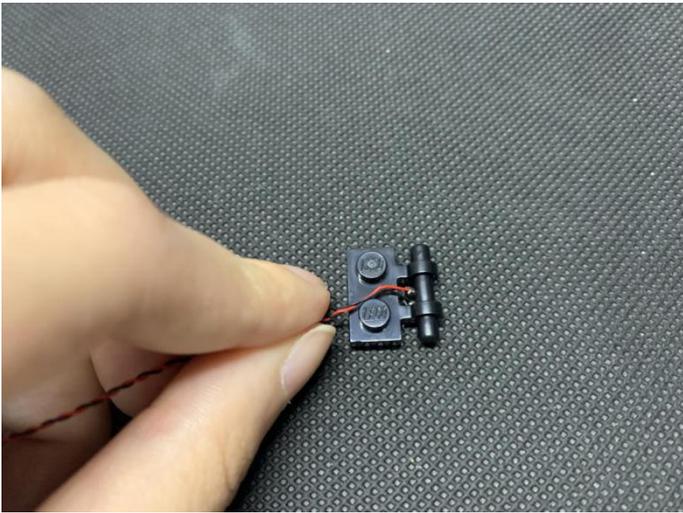
Place the cable of the light from the black piece underneath in between studs, reconnect the following pieces



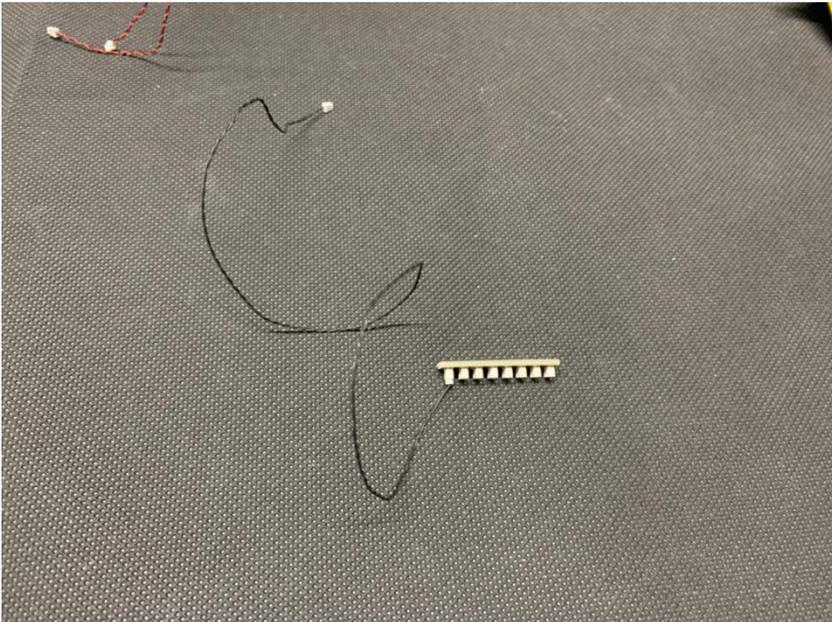
Remove the 1x2 black plate from the head of the boat, take a blue 15cm dot light



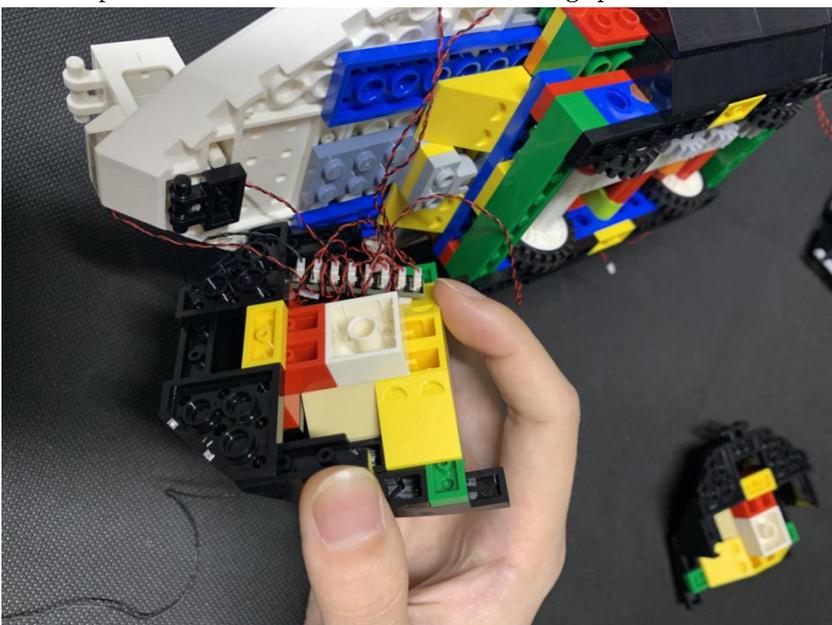
With lighting part downward, place the dot light at the hole on the black plate. Reconnect the black plate back to the head of the boat, from the bottom of the boat, pull the cable backward



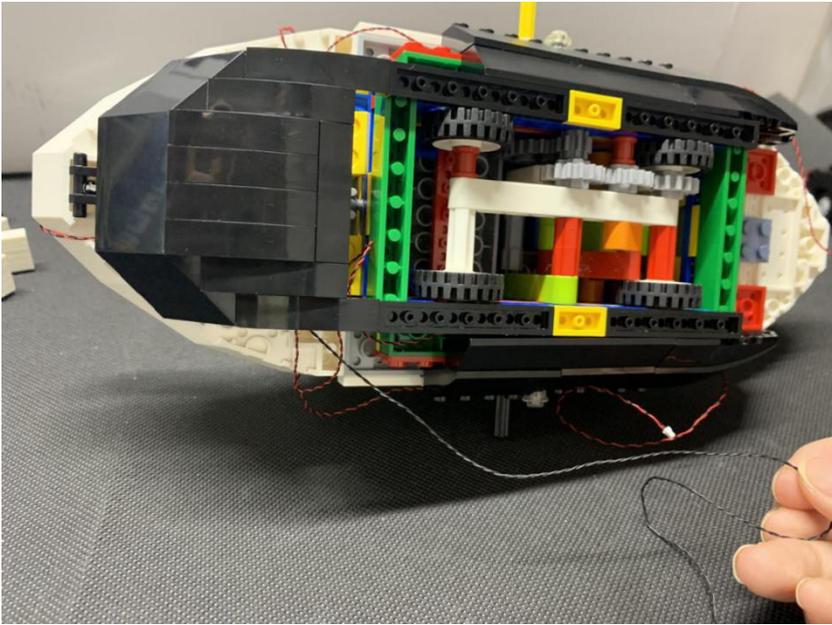
Take a 8-port expansion board, connect a 30cm connecting cable to it



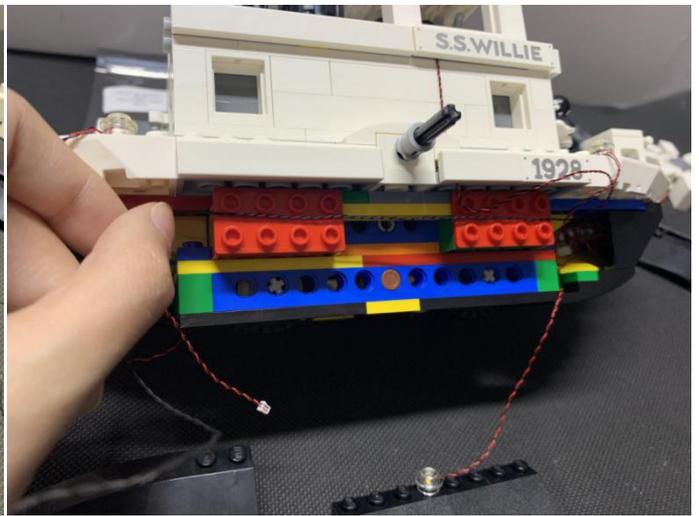
Connect all cables of the 7 lights from the head of the board to the expansion board, place the expansion board at the following place



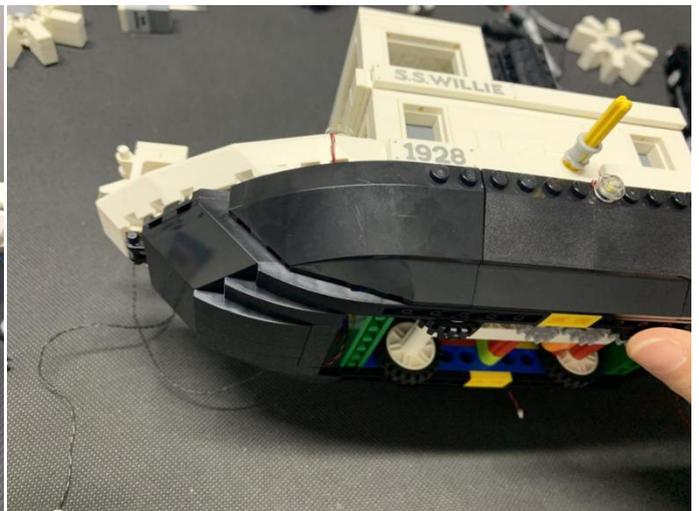
Reconnect the pieces we removed before, pull the 30cm connecting cable out from the bottom of the boat. Note: place the cables of lights in between studs



Remove the black piece from the bottom of the boat, pull the cable toward the back of the boat.



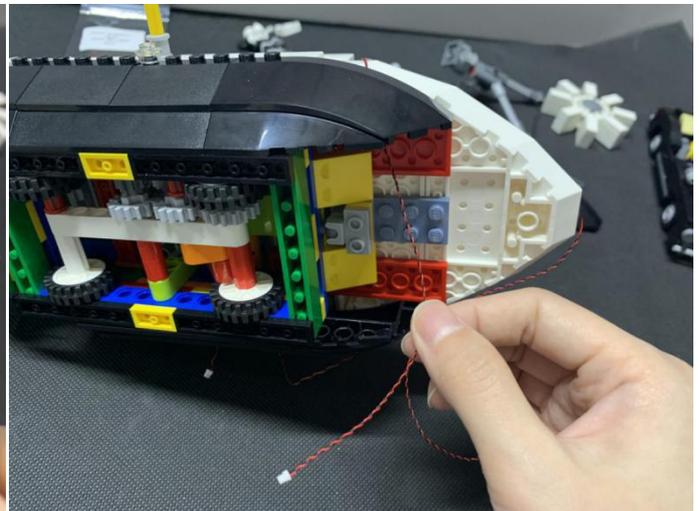
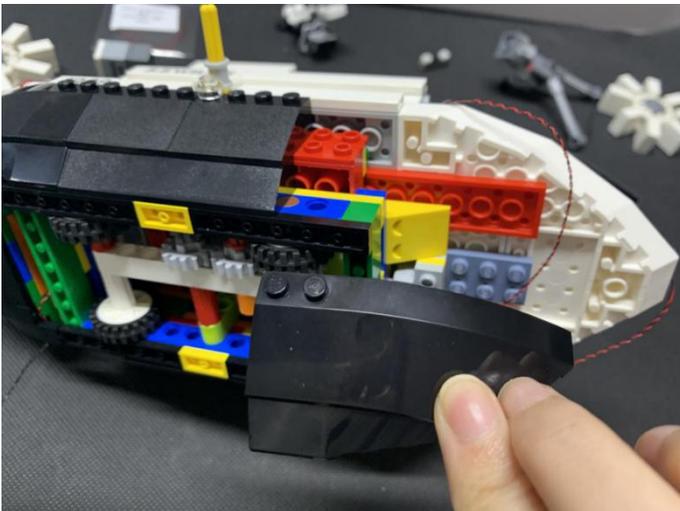
Reconnect the black pieces back to the bottom of the boat, place the cable underneath the pieces at the bottom of the boat



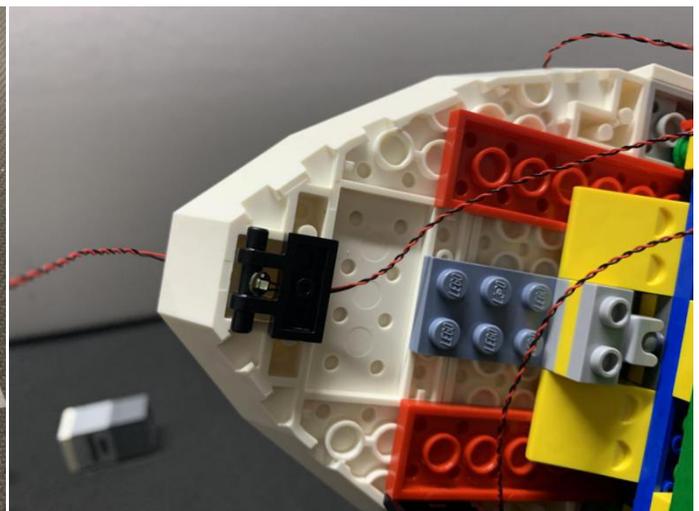
Turn the power on to verify the current



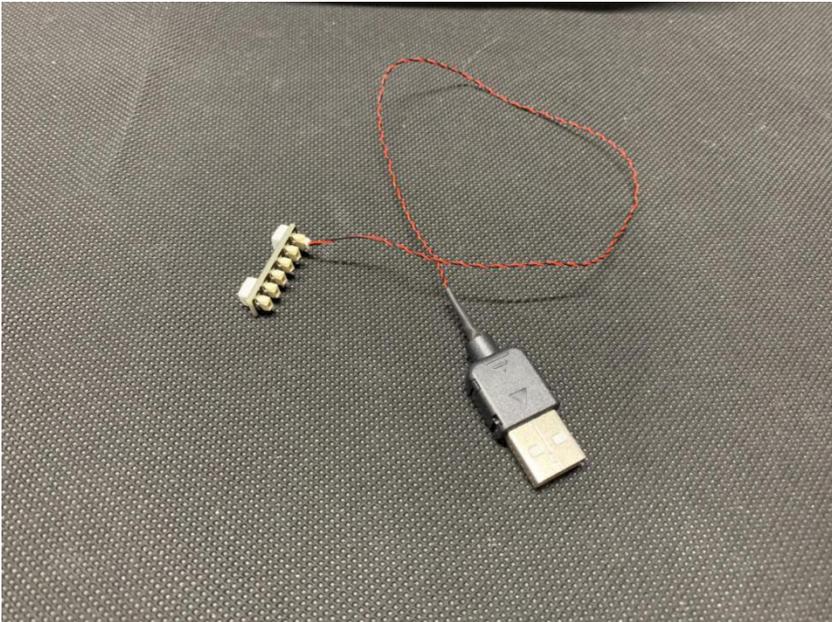
Remove the following black piece from the tail of the boat.



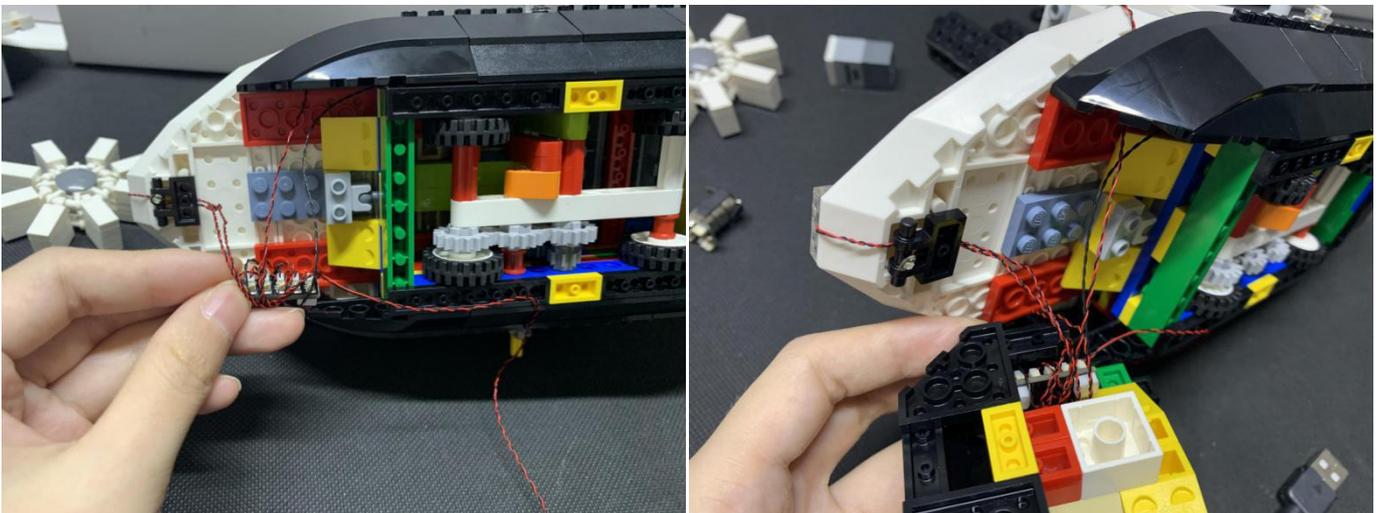
Take a blue 15cm dot light, install the light to the tail of the boat as we did before



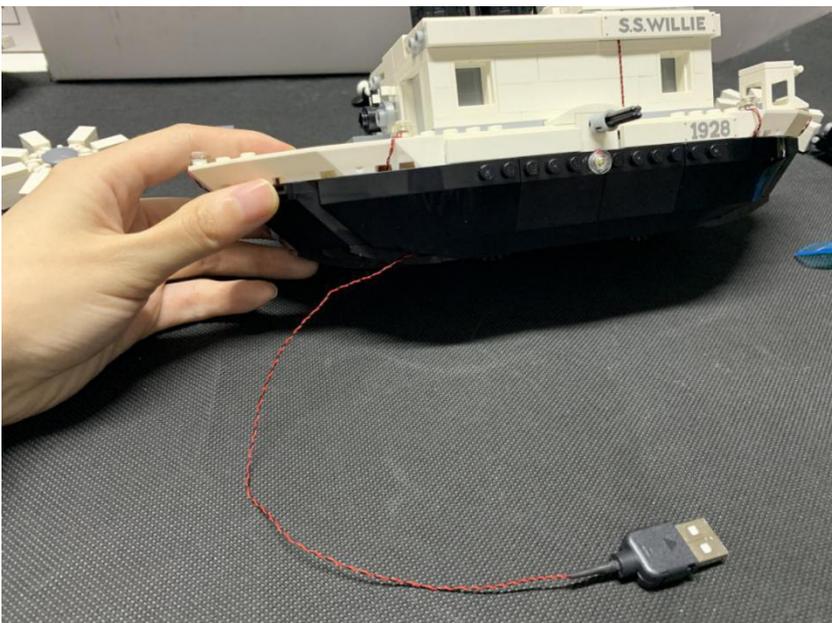
Take a 6-port expansion board, connect the USB power cable to it



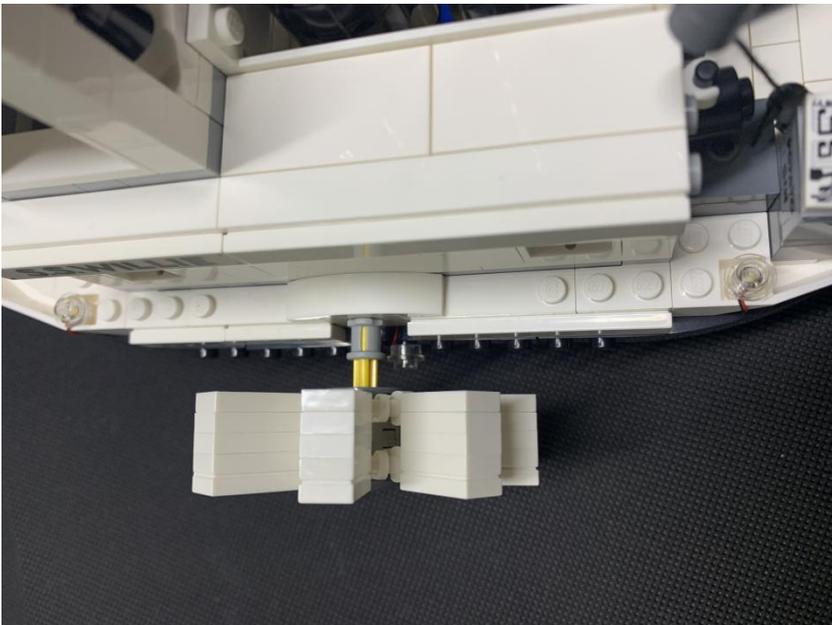
Connect all cables of lights from the tail of the boat to the expansion board. Place the expansion board at the following place



Pull the cable of the USB power cable out, reconnect the black piece back to the bottom of the boat.



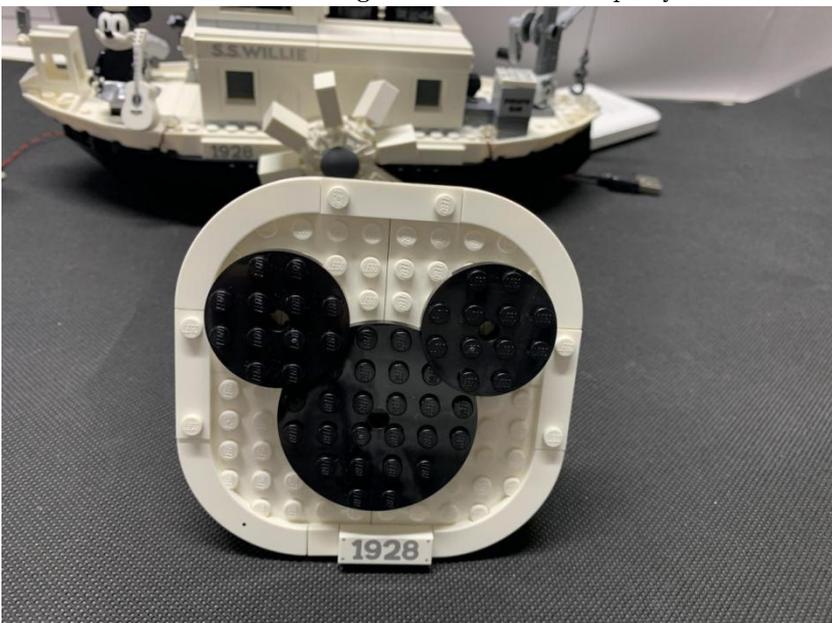
Leave some space when reconnecting the wheel



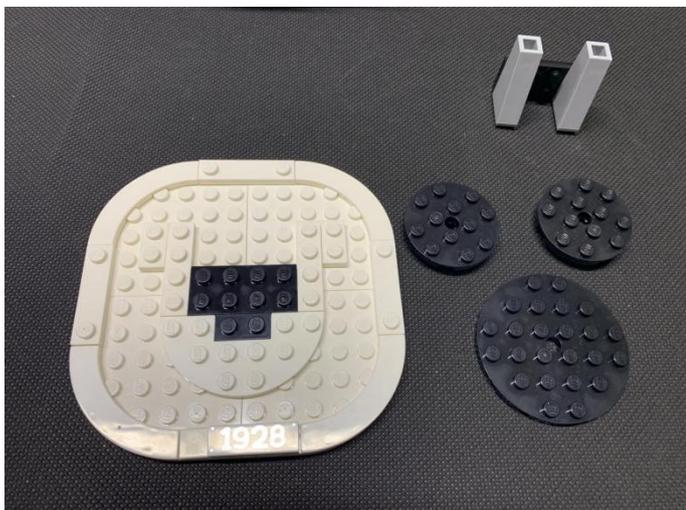
This completes installation of the lights of the steamboat. Turn the power on and ENJOY!



Continue to install lights for the display board



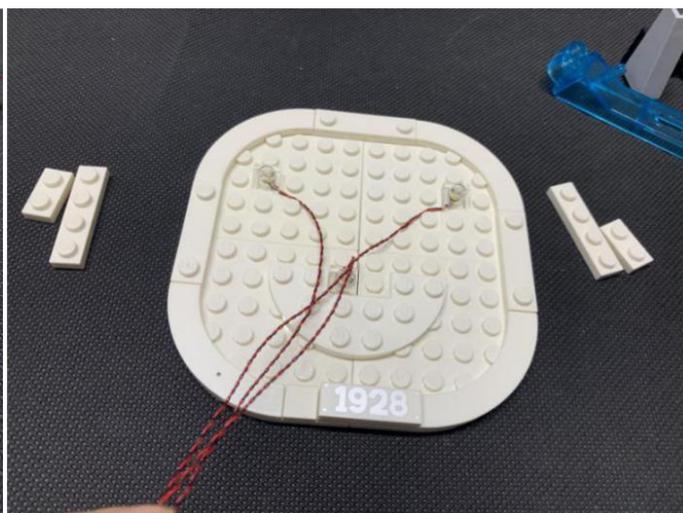
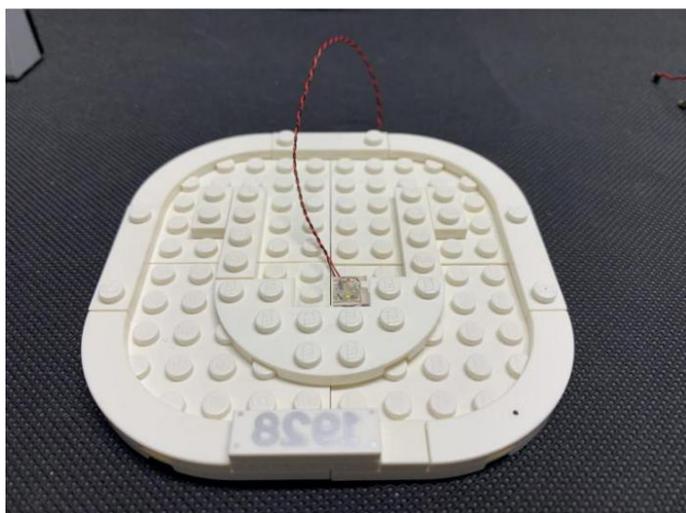
Disconnect the board as per below



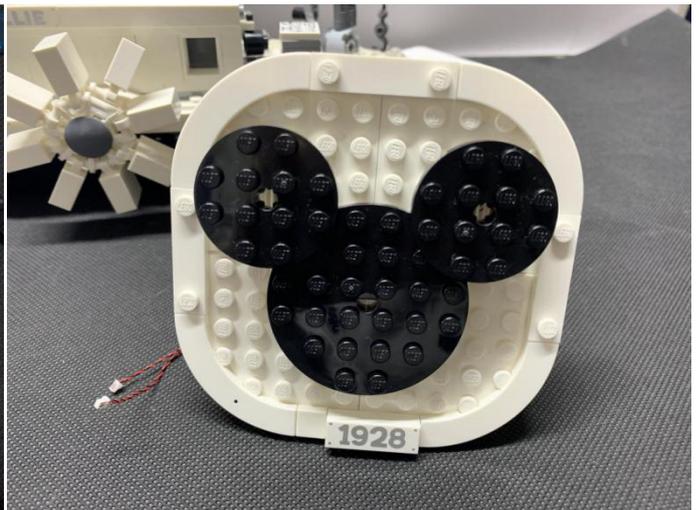
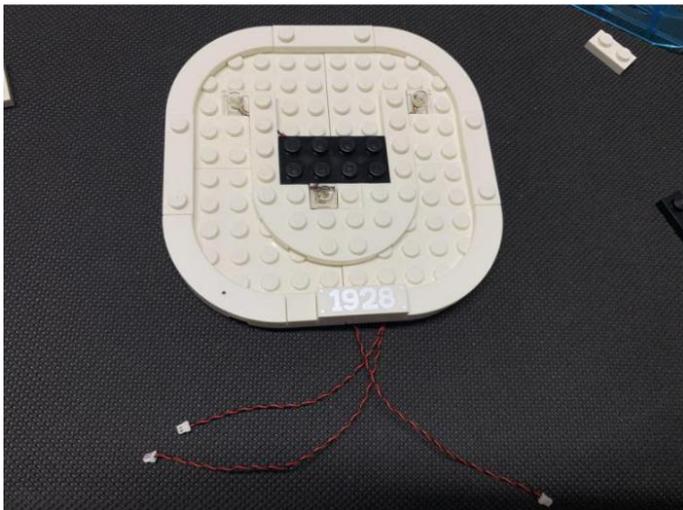
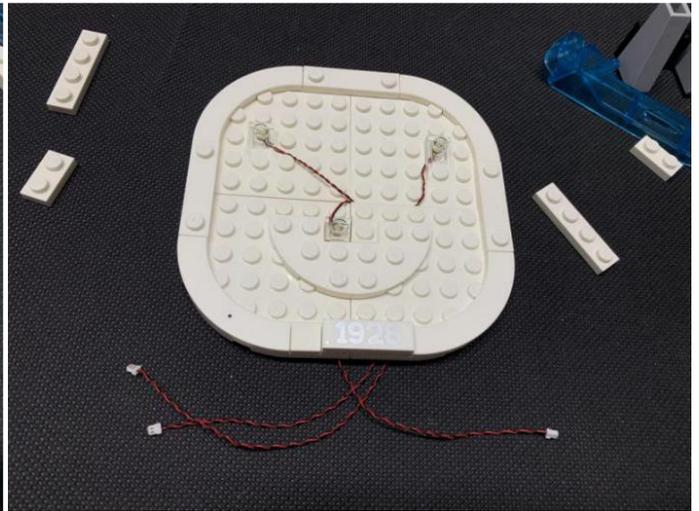
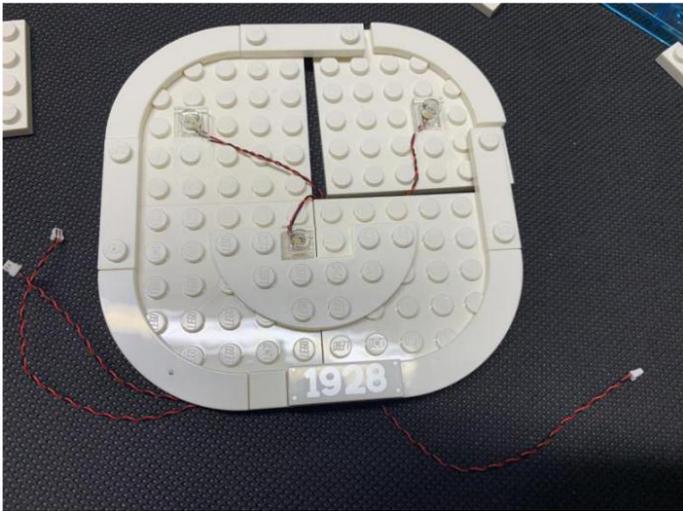
Take 3 warm white 15cm dot lights, 3 trans 1x1 plates



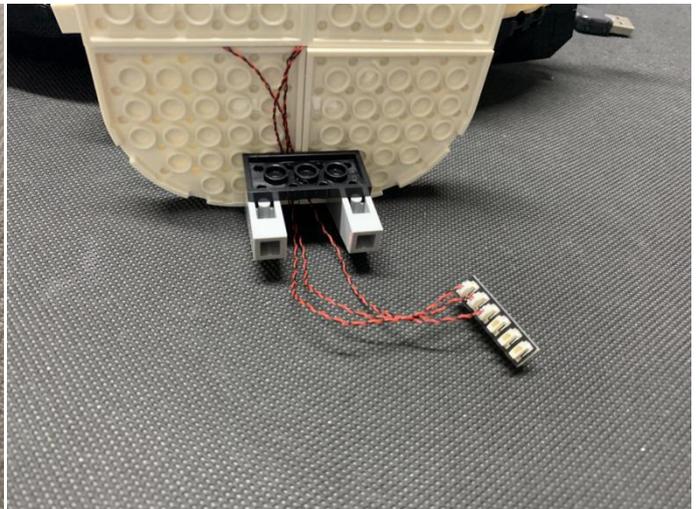
Connect the lights to the following places, replace the original black plates and whites plates with the trans plates



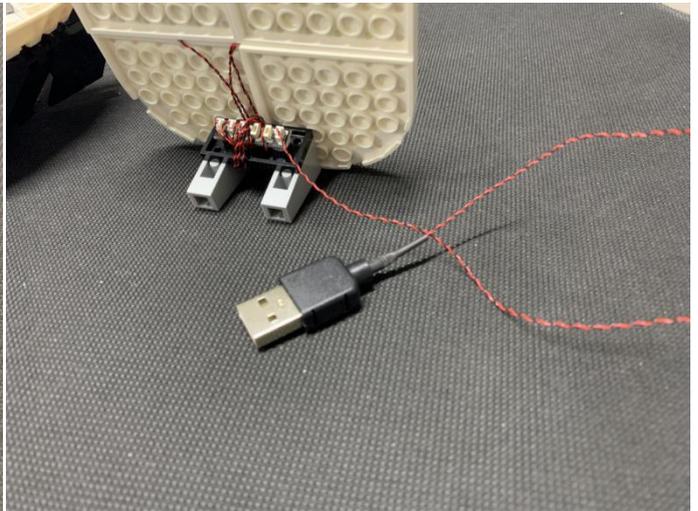
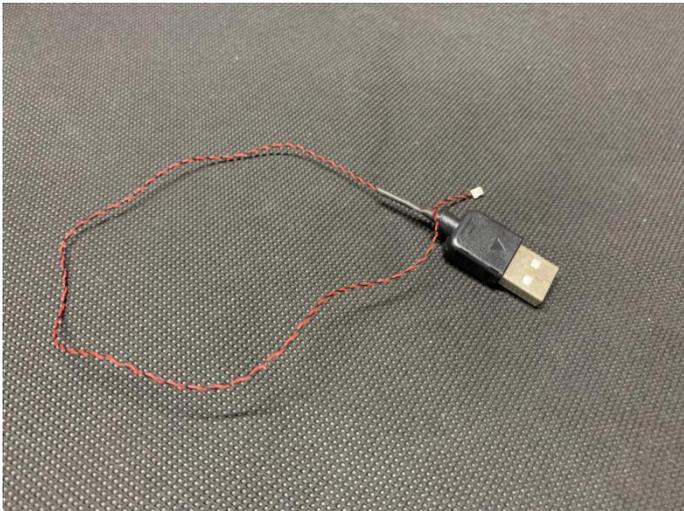
Thread the cables through the center as per below, pull them out from the back, reconnect the display board.



Take a 6-port expansion board, connect all cables of the lights to it



Take the USB power cable, connect it to the 6-port expansion board, secure the expansion board in place by using the adhesive tapes



This completes installation of this LED Lighting Kit. ENJOY!

