LEGO Ideas Treehouse # 21318 spring Lighting Kit

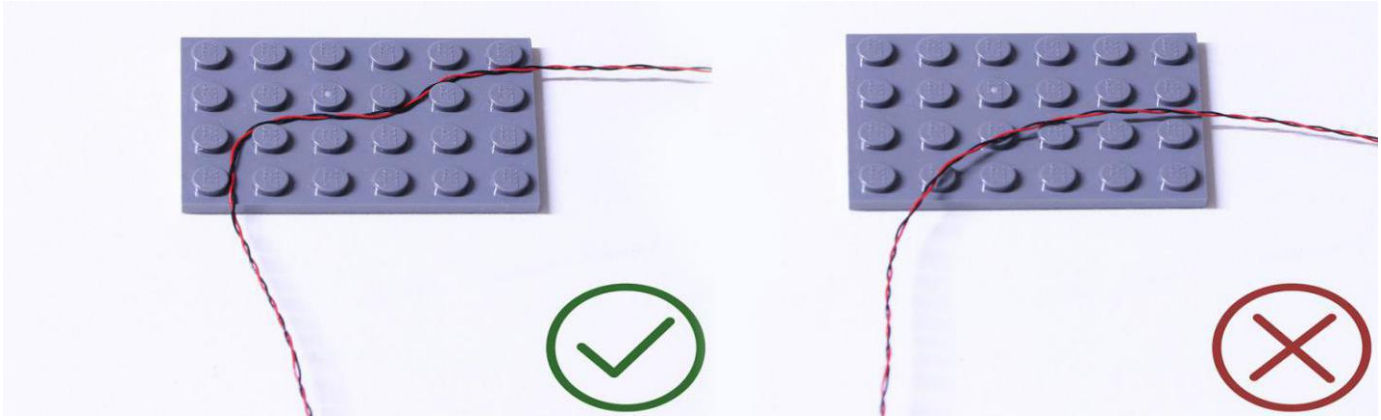
Package contents:

- 5 x 15cm Warm White Dot Lights
- 4 x 30cm Warm White Dot Lights
- 6 x Warm White Strip Lights
- 2 x Green Strip Lights
- 4 x 5cm Connecting Cables
- 7 x 15cm Connecting Cables
- 2 x 30cm Connecting Cables
- 1 x 50cm Connecting Cables
- 1 x 2-port Expansion Board
- 5 x 6-port Expansion Boards
- 6 x Multi Colour Light Strings
- 1 x Flicker Effects Board
- 1 x USB Cable

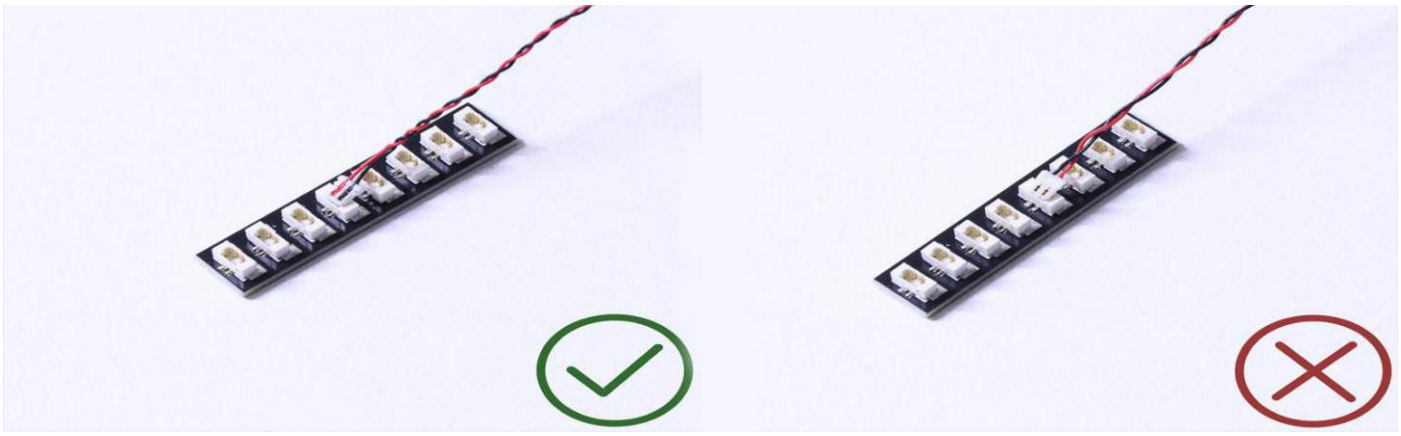
Extra LEGO pieces

Note:

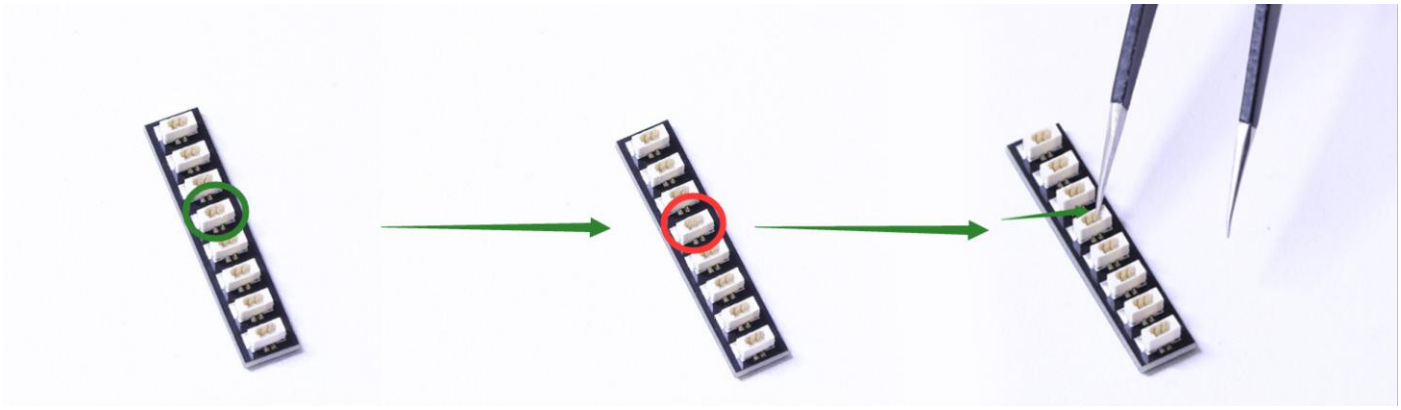
Place wires on the surface or under the LEGO building blocks.
The wire can be place between the building blocks or under the block, but they should be placed between the studs correctly.



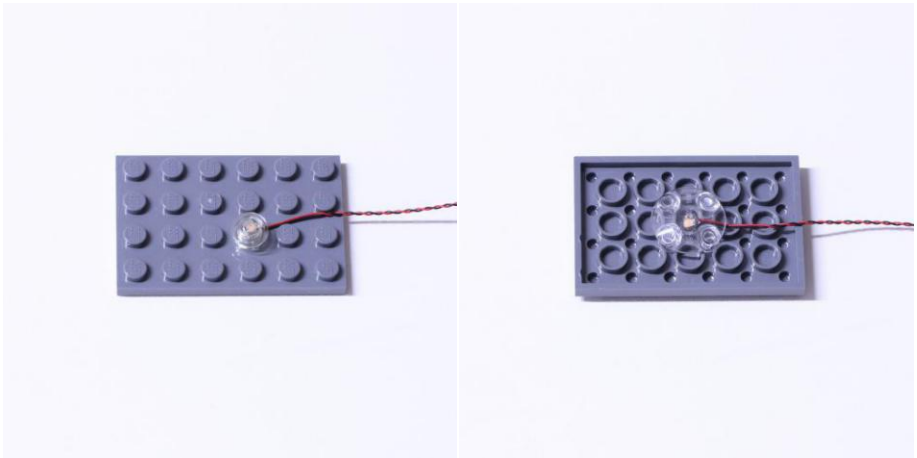
Insert the connectors to the ports.
Be careful when you are operating, there's only one correct way to insert, make sure the expansion board is upward, find the soldered "=" sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the "=" sign and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



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

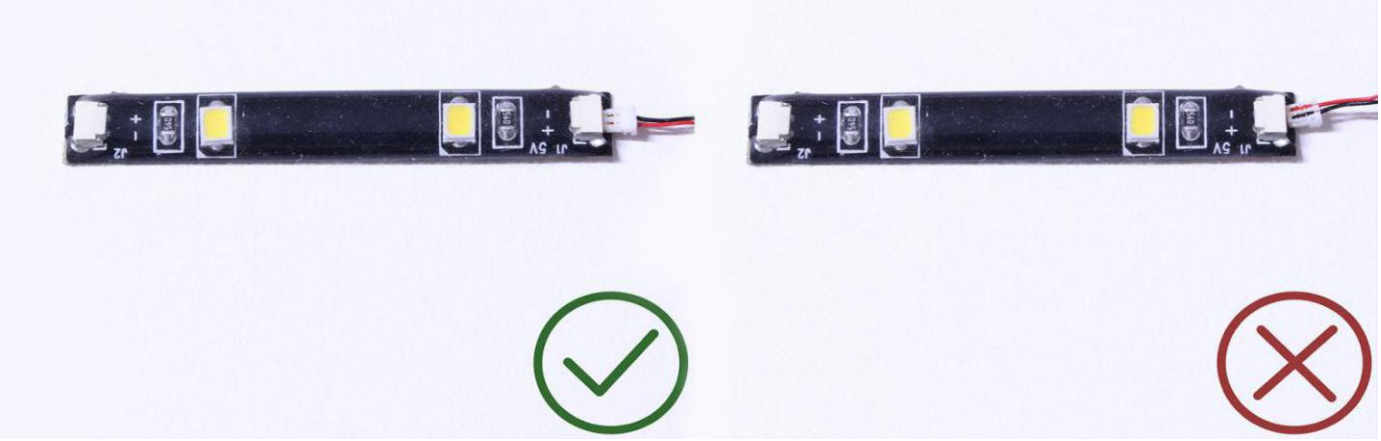


When installing dot lights, make sure they are correctly placed (Yellow LED package is exposed). You can put they either on the top of the studs or between studs.

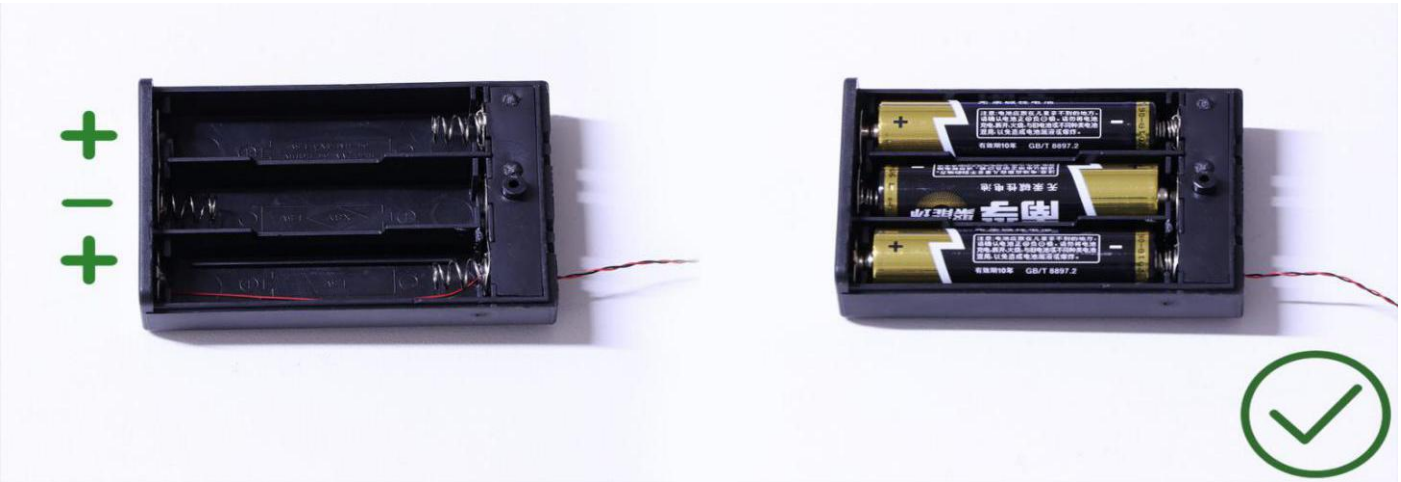


Connecting cable connectors to Strip Lights

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.



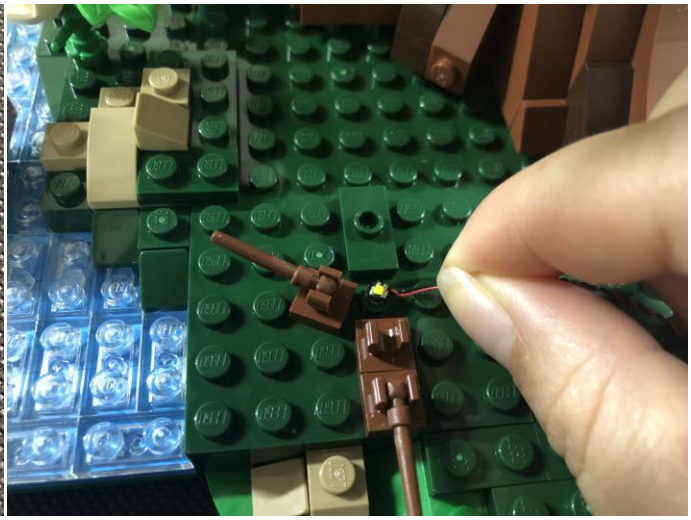
Instructions for installing this kit

OK, Let’s Begin!

Remove the top of the tree first

Disconnect the following pieces

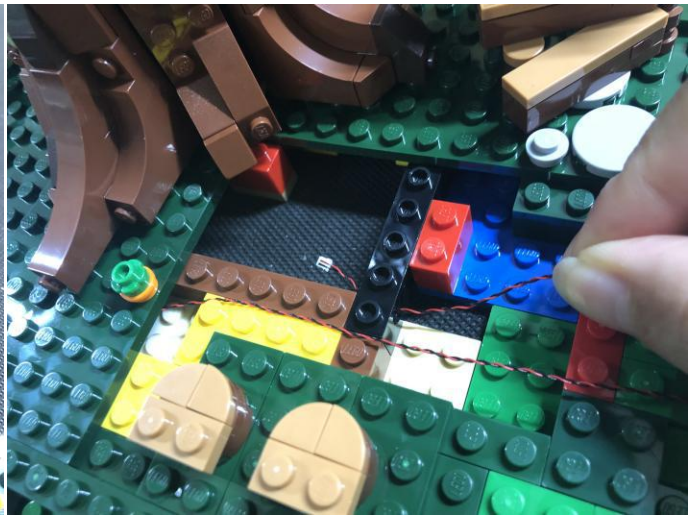
Take a warm white 30cm dot light, a trans round orange 1x1 piece, with lighting part facing up, place the light at the center of the fire



Secure the light with the trans round orange piece

Remove the following pieces, disconnect the 2 base plates

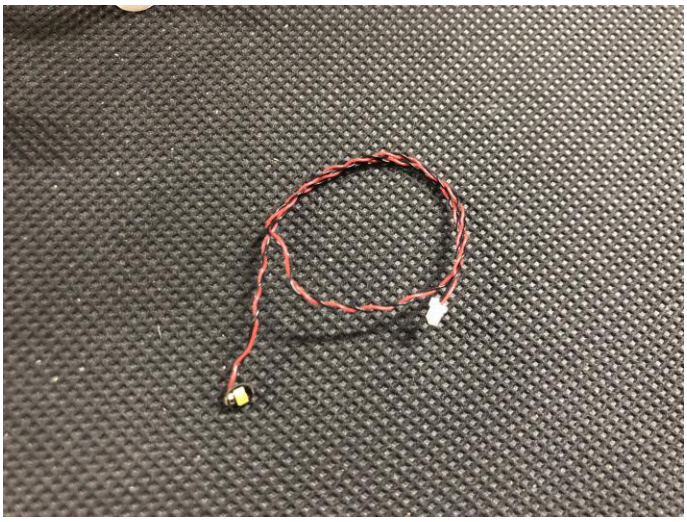
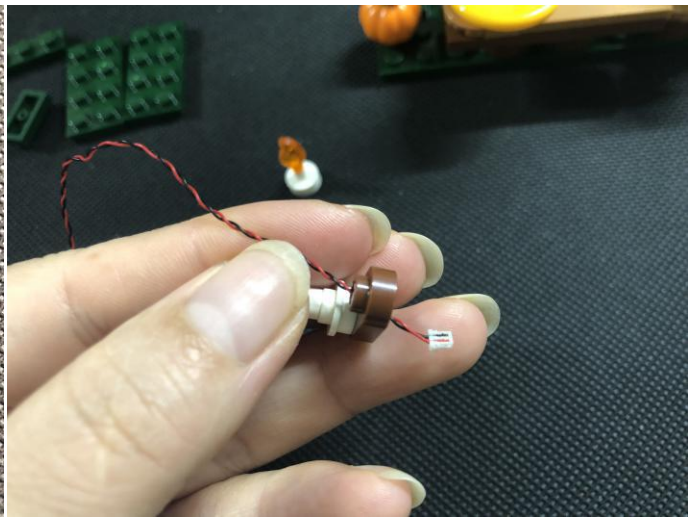
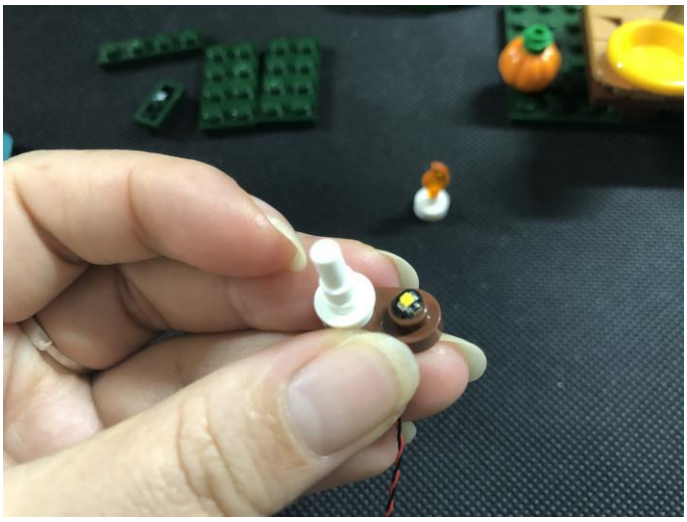
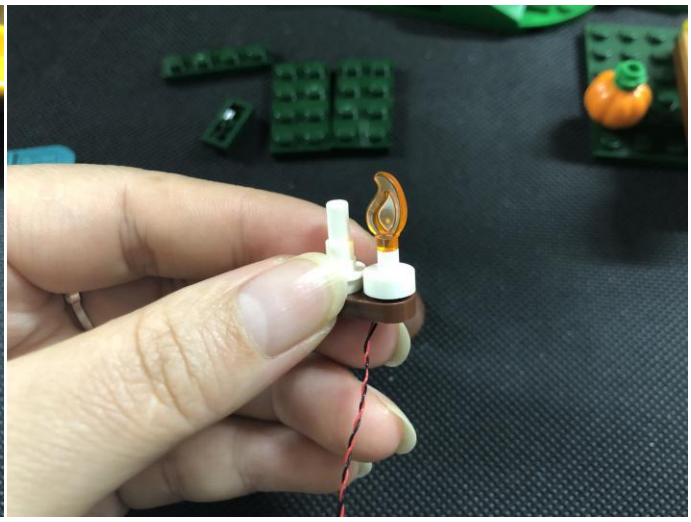
Thread the cable of the fire through the space underneath, then, thread it through the black piece as per below



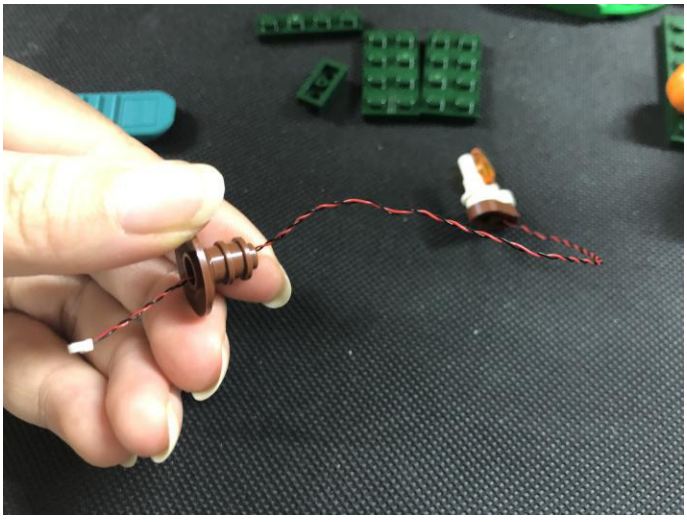
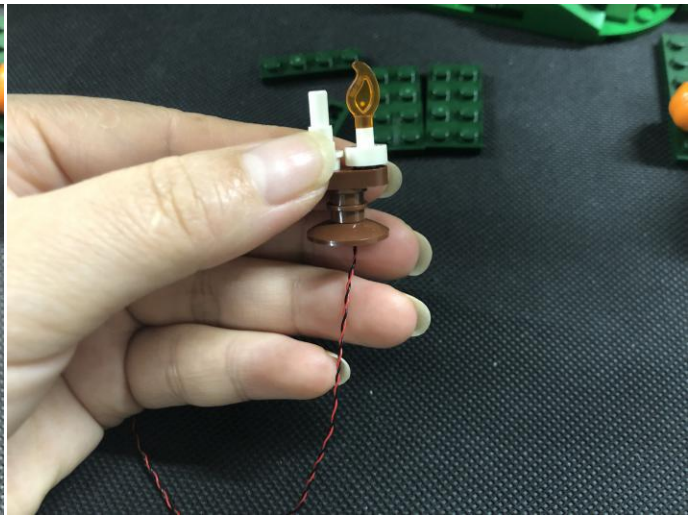
Reconnect the pieces

Continue to install lights for the candles on the table

Take a warm white 15cm dot light, thread it through the cable piece as per below, reconnect the flame

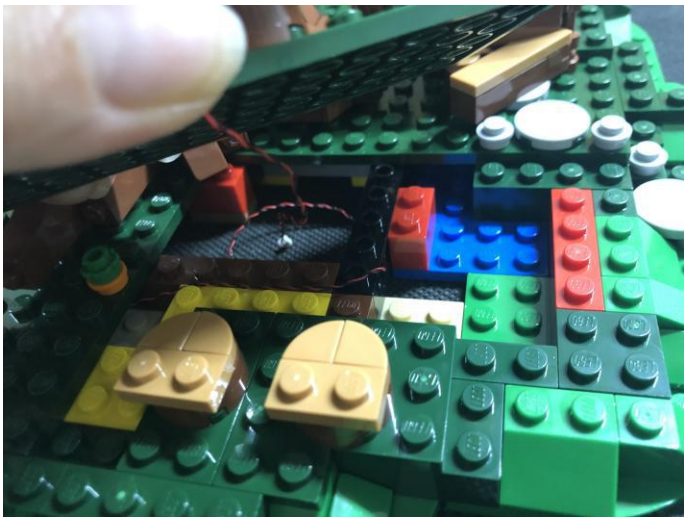
Thread the connector through the base, reconnect the base

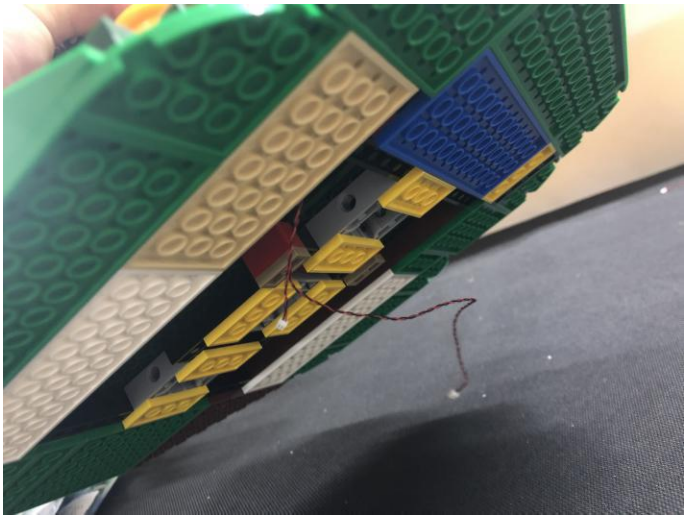
Remove the 1x6 light brown plate, reconnect the candle, secure the cable underneath the plate

Disconnect the table, thread the cable underneath, reconnect it

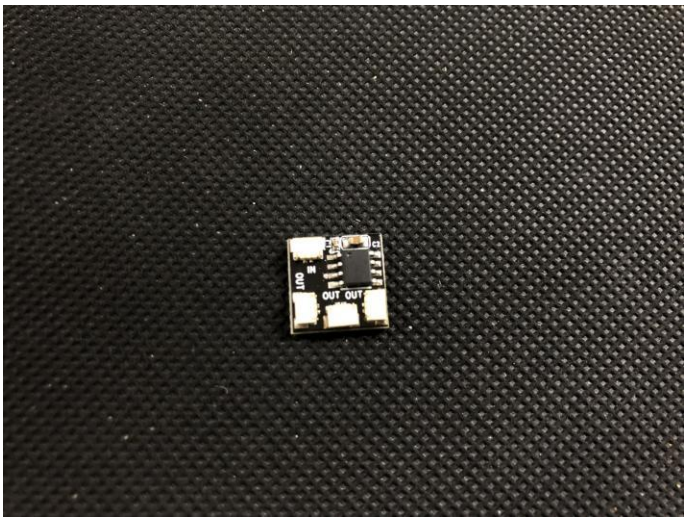
Pull the cable to the bottom of the base plate, reconnect other pieces

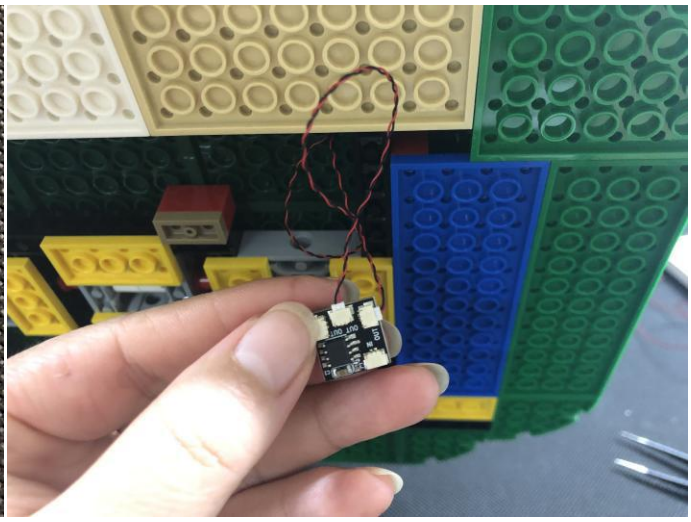


You can see the cables of the lights underneath the base

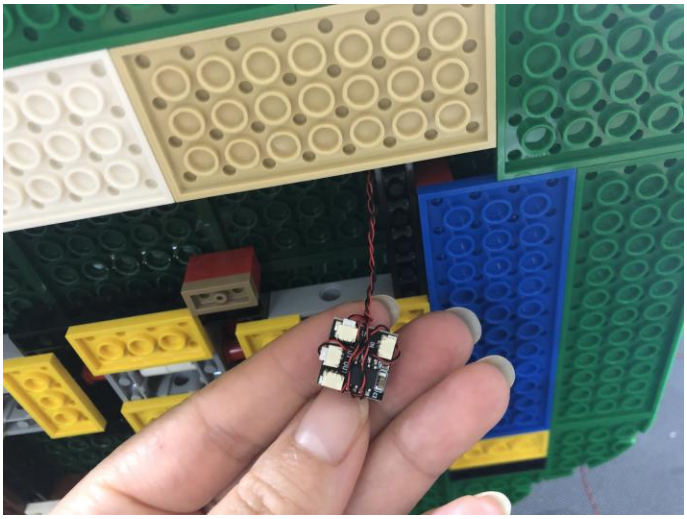


Take the Flicker Effects Board, connect the cables of the fire and the candle to it



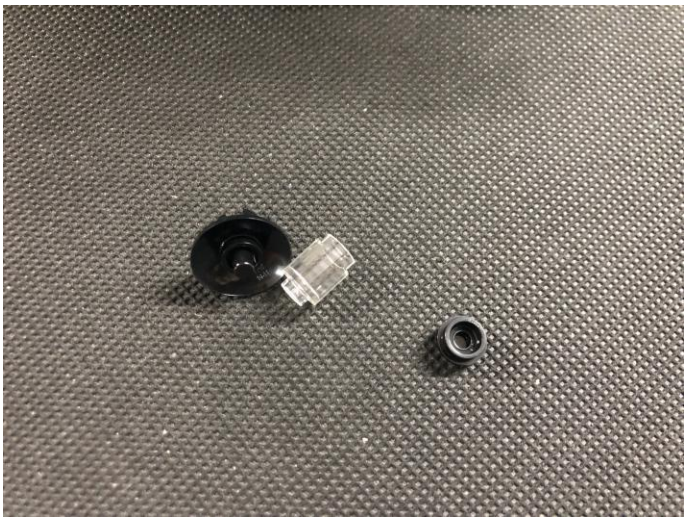


Tuck excess cables around the Flicker Effects Board

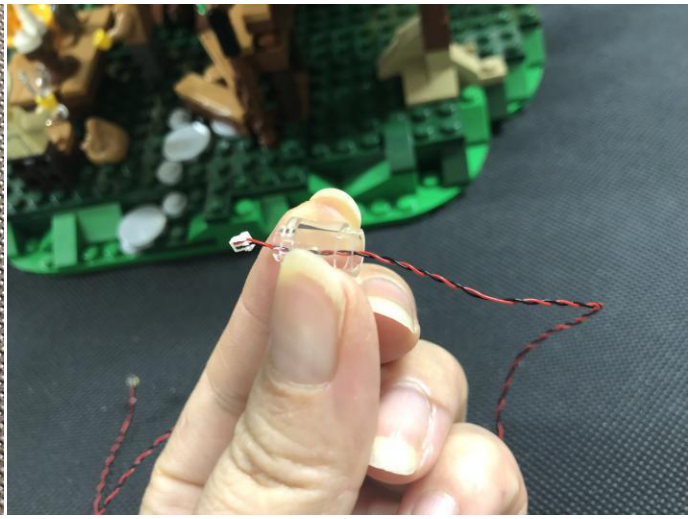


Move onto installing lights for the railing of the stairs

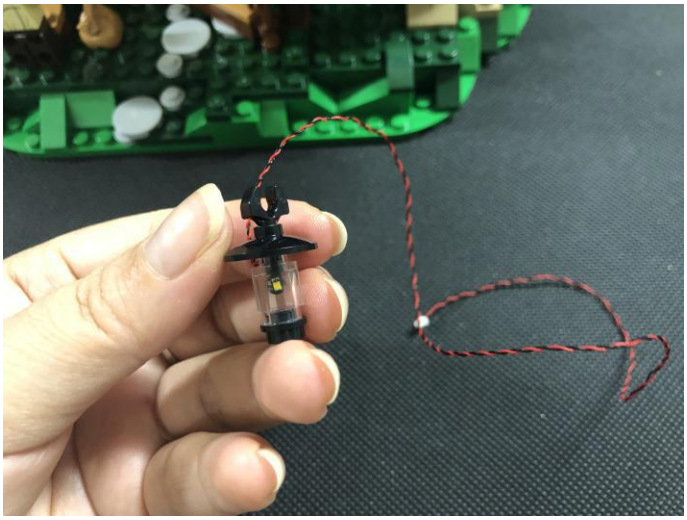
Remove the lampshade and disassemble it as per below



Take a warm white 30cm dot light, thread the light through the trans piece



Reconnect the lamp

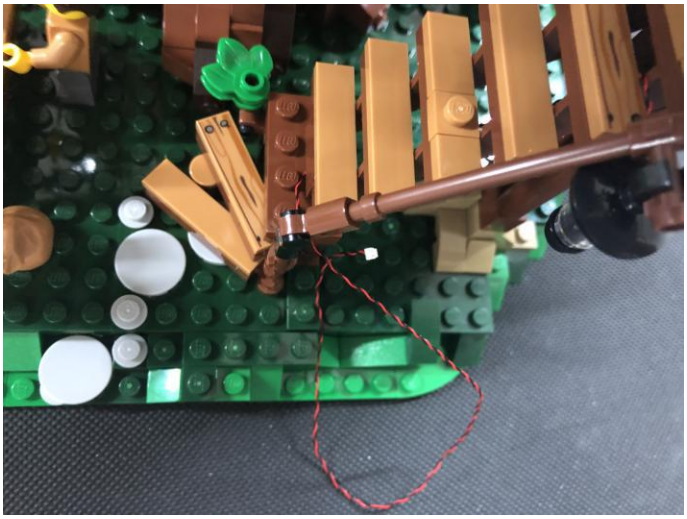


Thread the cable of the light through the gap between the stairs, pull it out from the back of the stairs

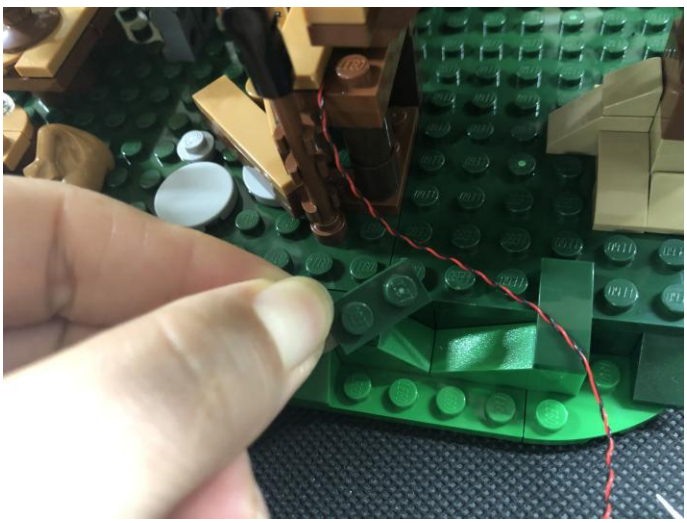
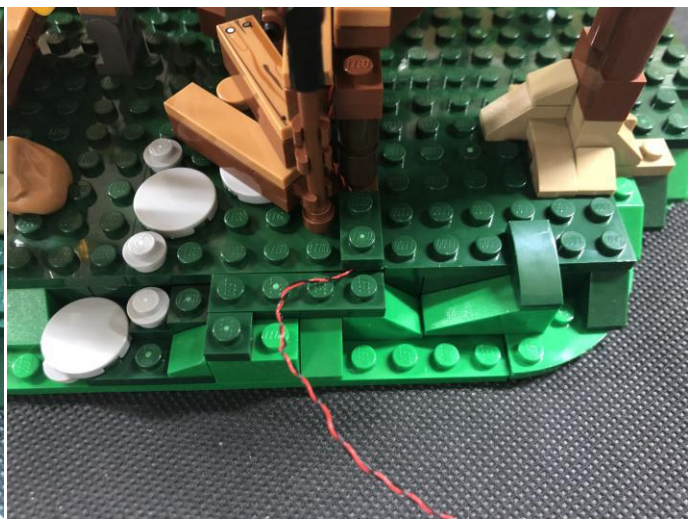
Remove the third stair

Thread the cable through the following space

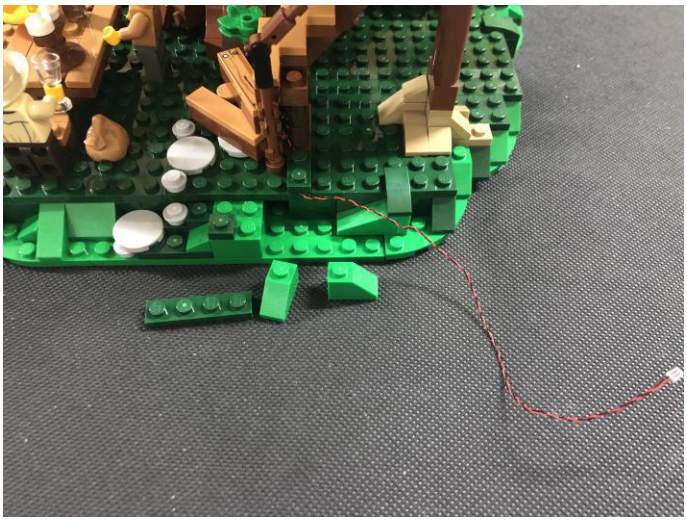
Pull the cable out, reconnect the stair



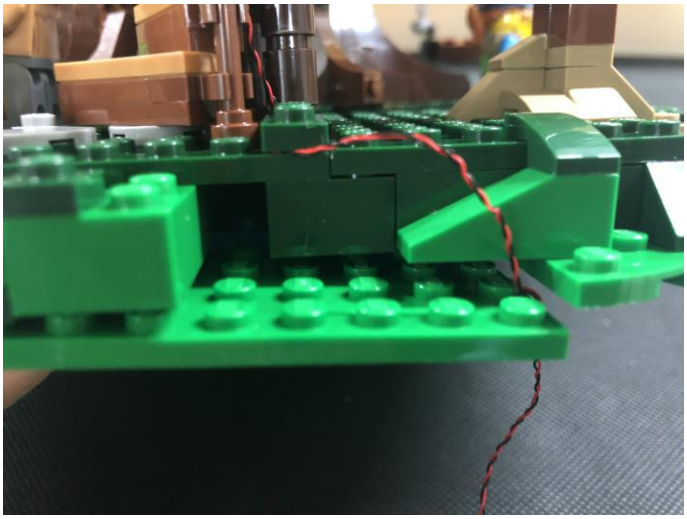
Remove the following 1x2 green plate to secure the cable as per below

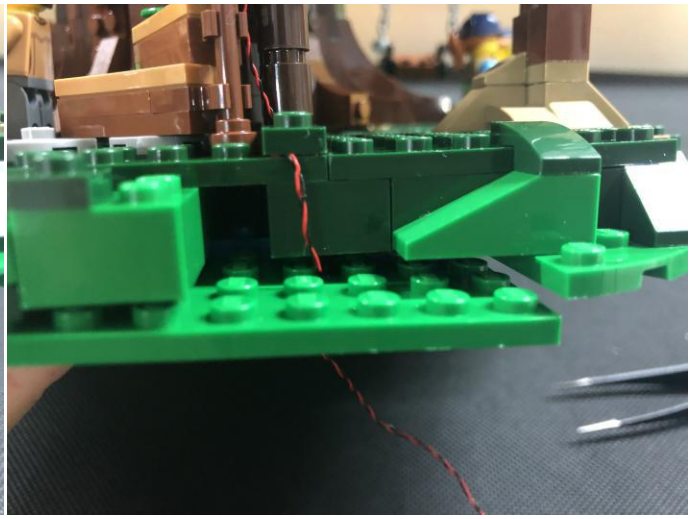



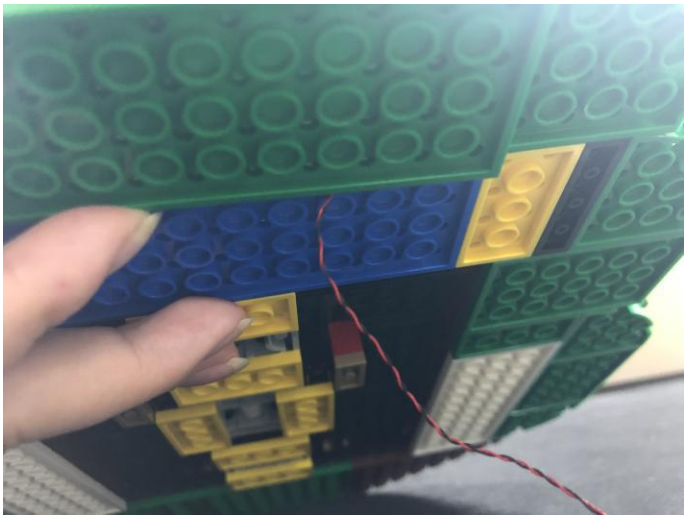
Remove the following 1x4 green plate and 2 slope bricks

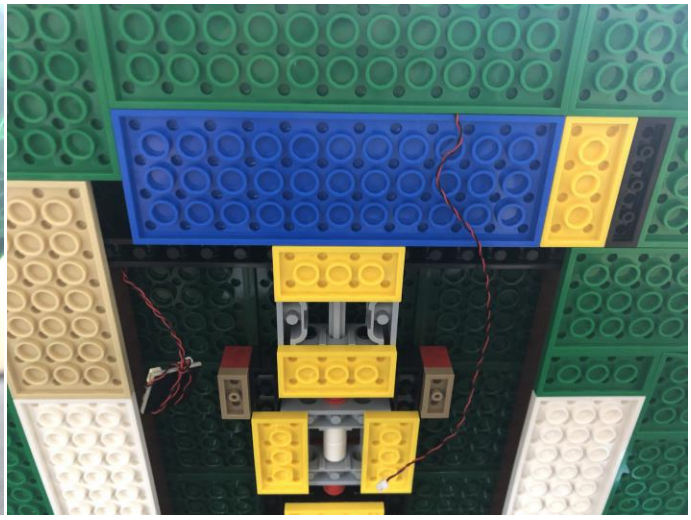


Place the cable as per below



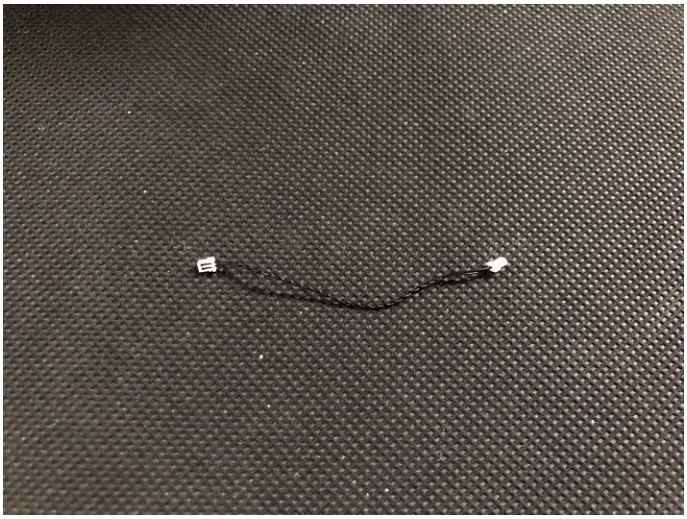


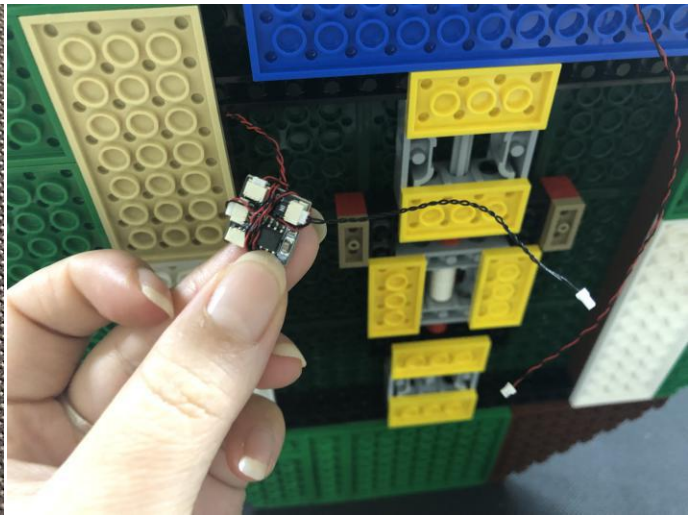




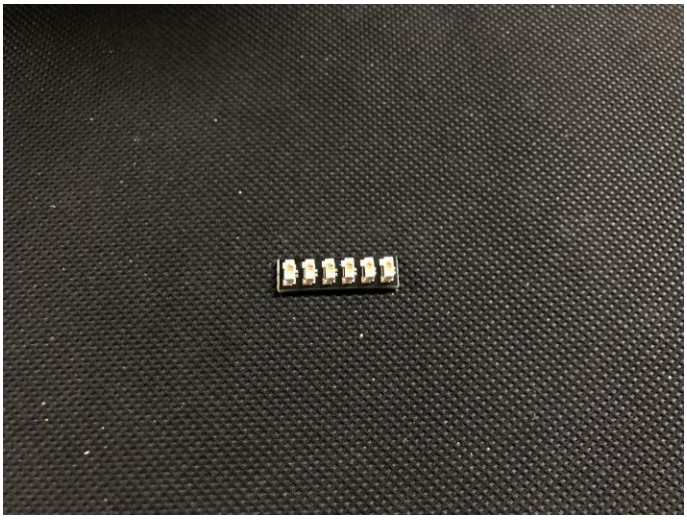
Reconnect the pieces

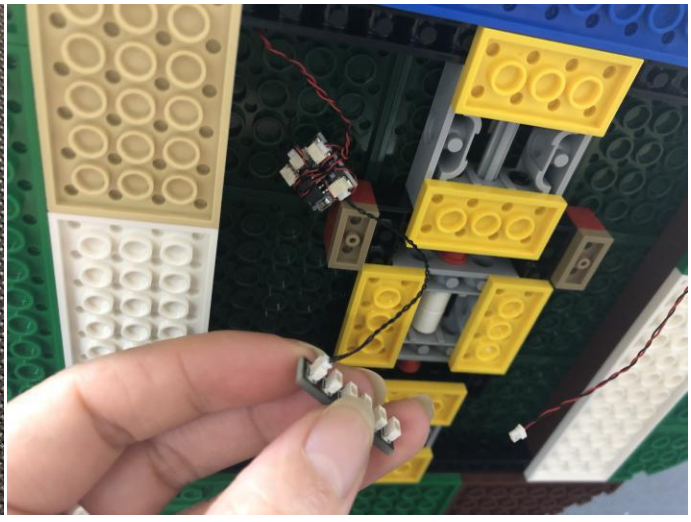
Take a 5cm connecting cable, connect it to the Flicker Effects Board



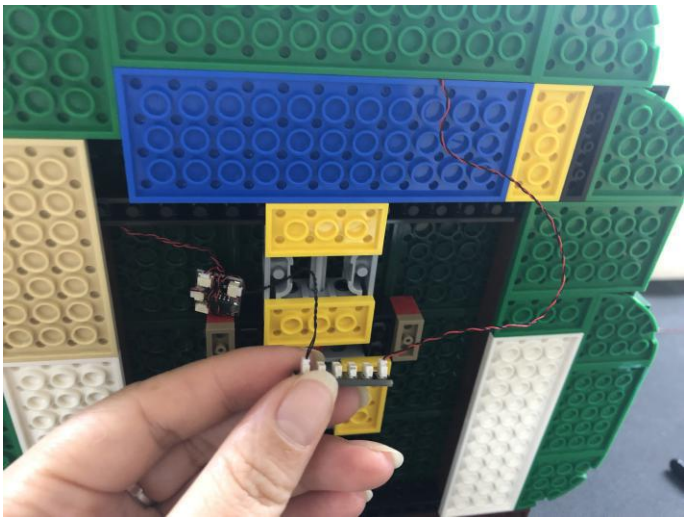
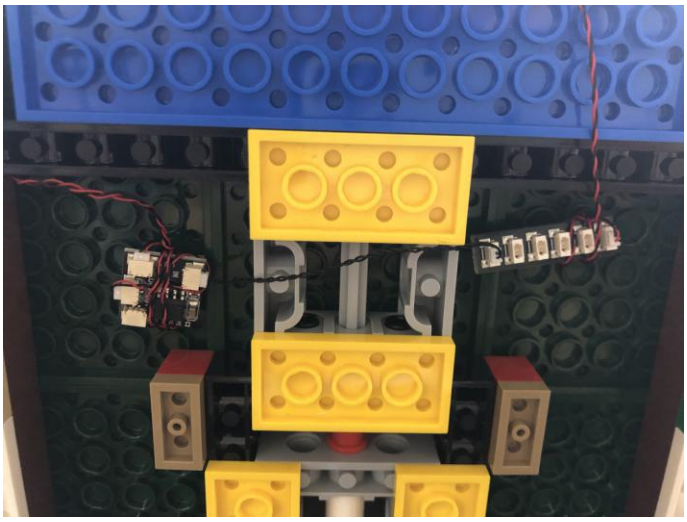


Take a 6-port expansion board, connect the other end of the 5cm connecting cable to the expansion board



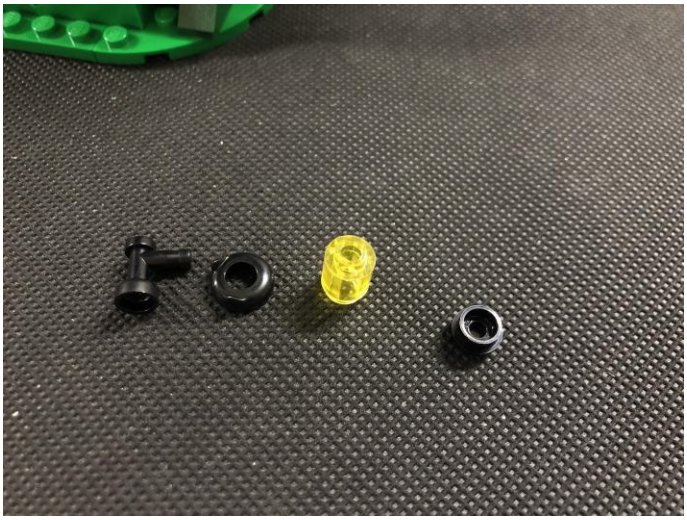


Connect the cable of the lamp to the expansion board, tuck excess cable, stick the Flicker Effects Board and the expansion board to the bottom with adhesive squares

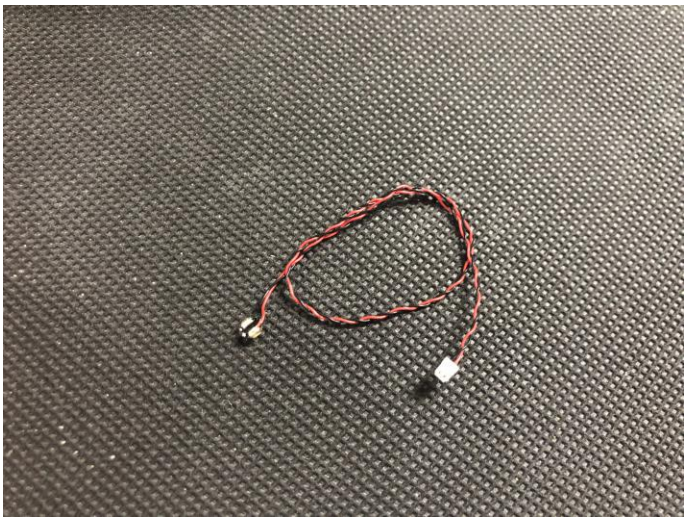
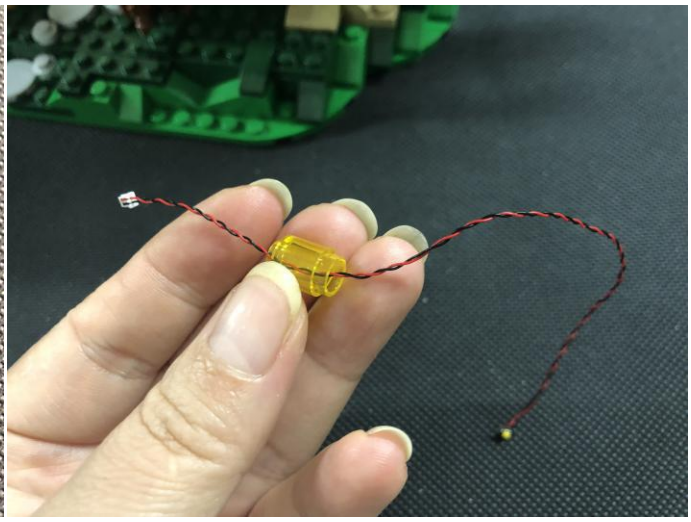



Continue to install lights for the house, remove the lamp in front of the room

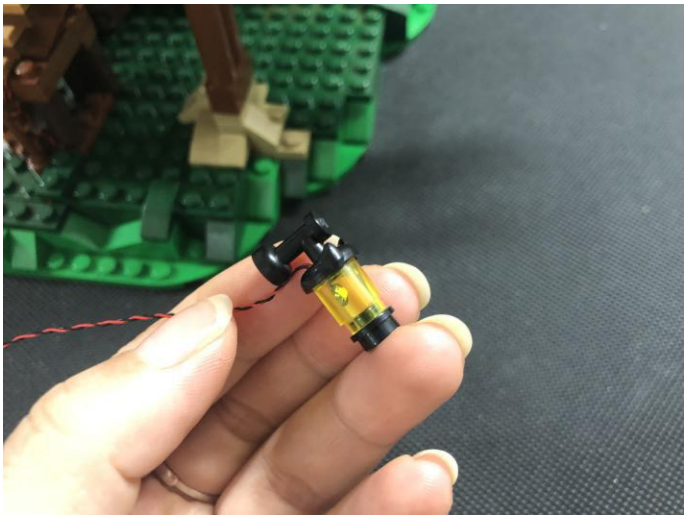
Disassemble the lamp as per below



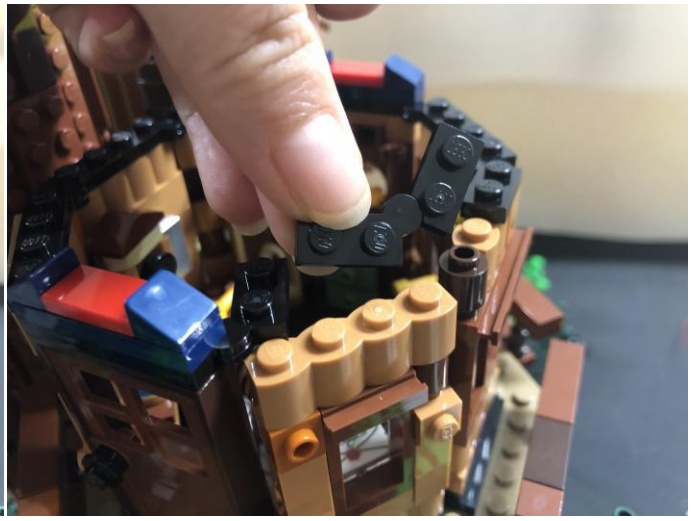
Take a warm white 15cm dot light, thread the light through the trans yellow piece

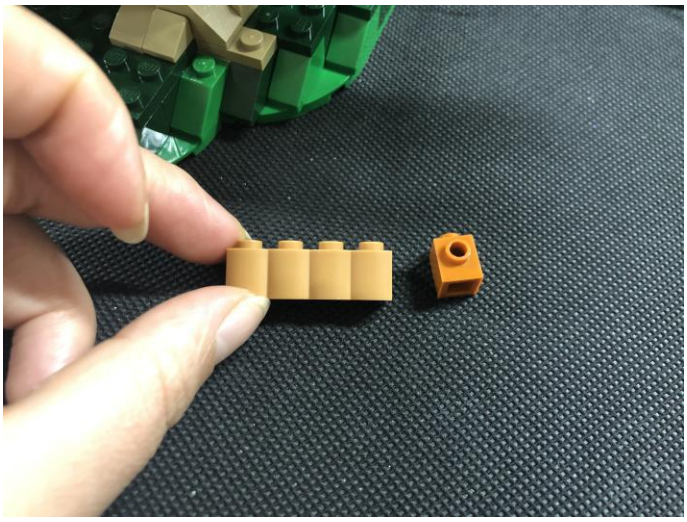
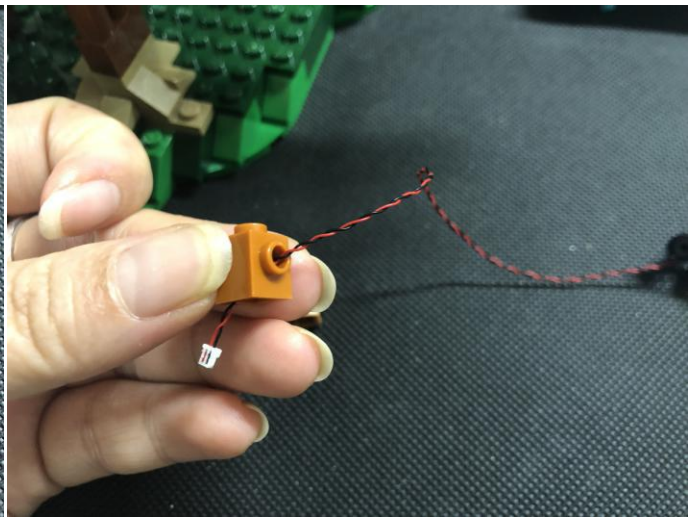
Reconnect the lamp



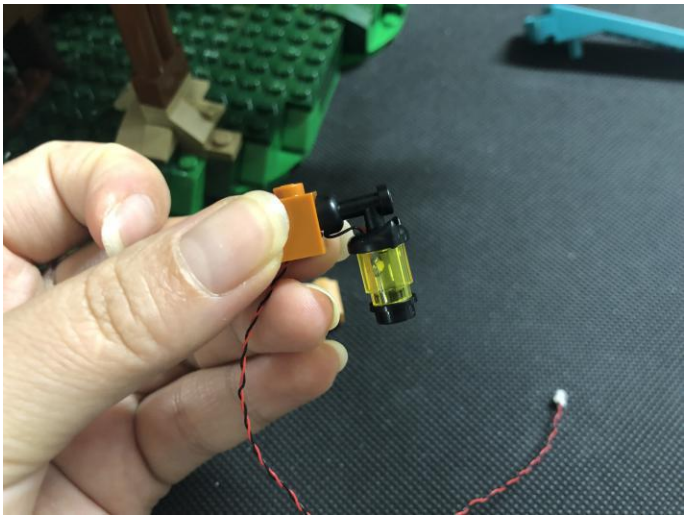
Remove the roof of the room, disconnect the 1x4 piece



Remove the following piece, thread the light through the orange brick

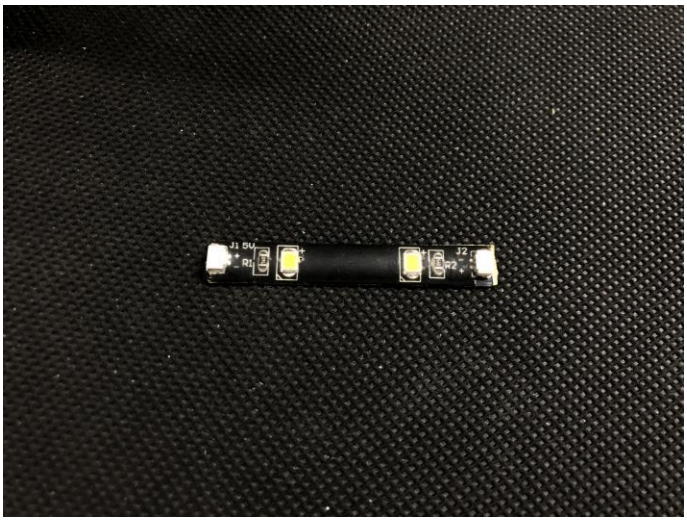
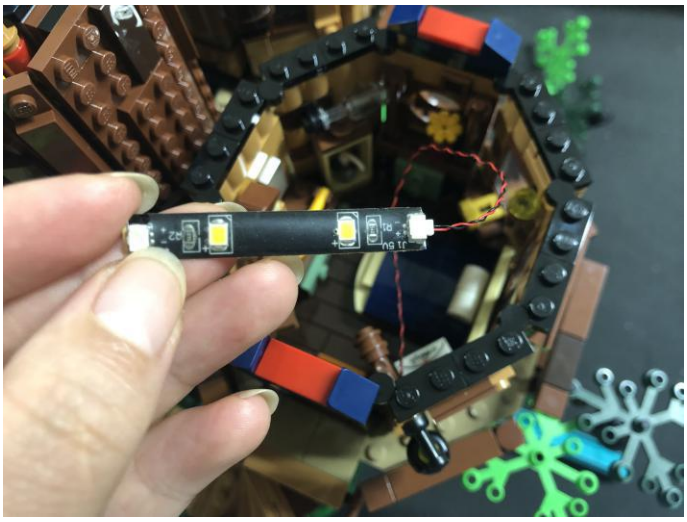



Reconnect the lamp

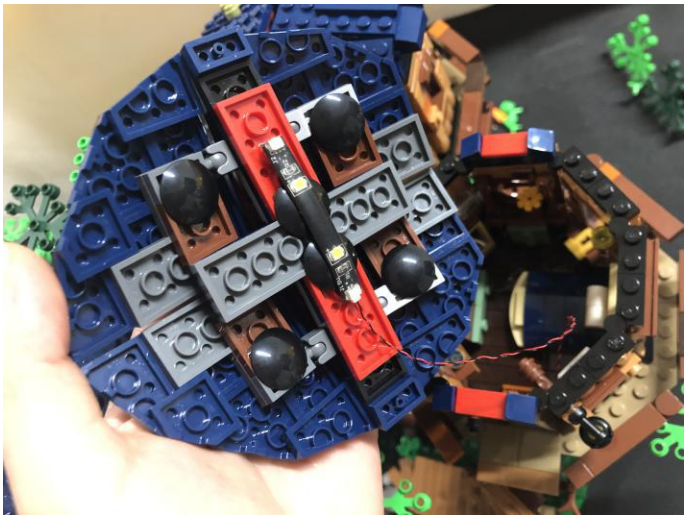


Reconnect the pieces we removed before, pull the cable toward the inside

Take a warm white strip light(striplight#1), connect the cable to the right port of striplight#1

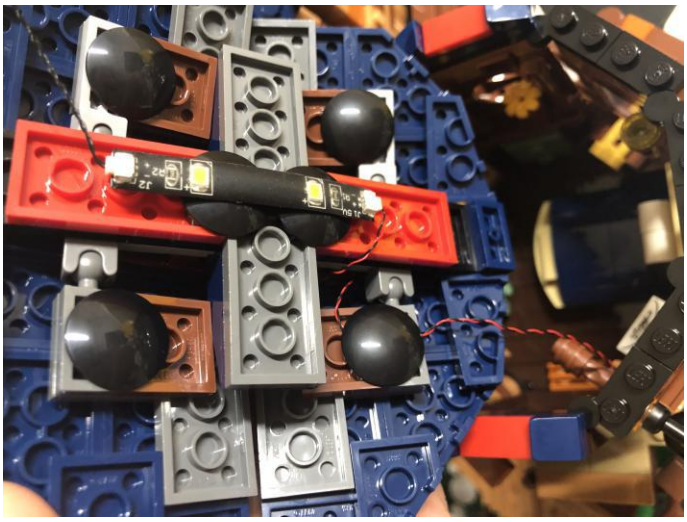



Stick the striplight#1 to the ceiling of the room



Take a 15cm connecting cable, connect it to the other end of the striplight#1

Secure the cable with the following black round piece

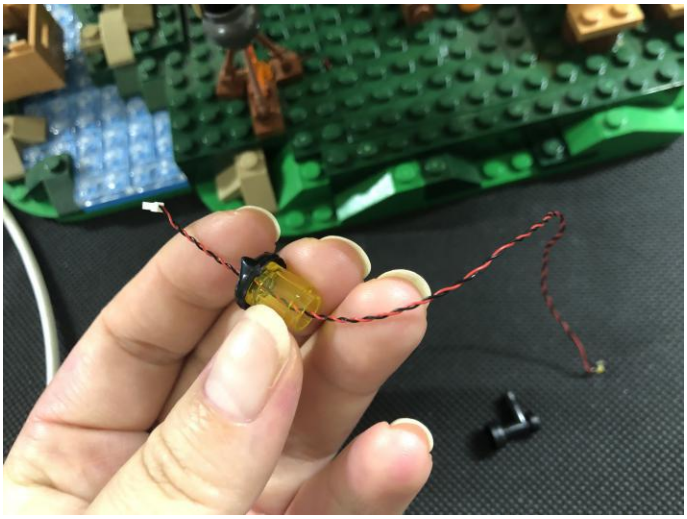


Reconnect the roof, pull the cable out as per below

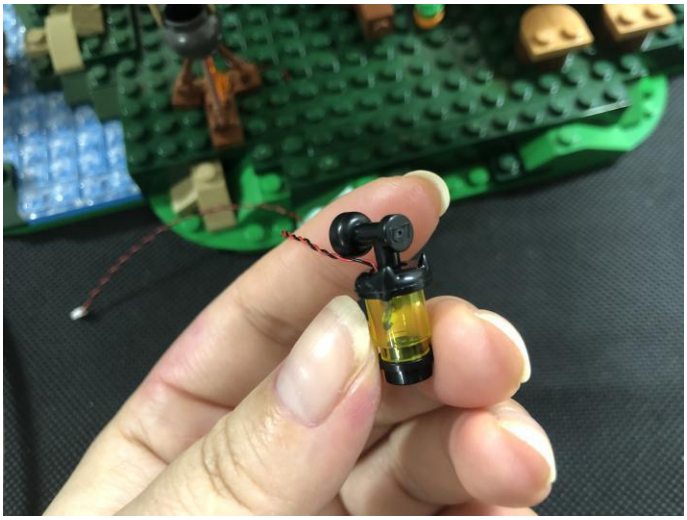
Remove the roof of the bathroom, thread the cable through, secure the cable with the 1x4 black piece

Remove the lamp from the outside of the bathroom

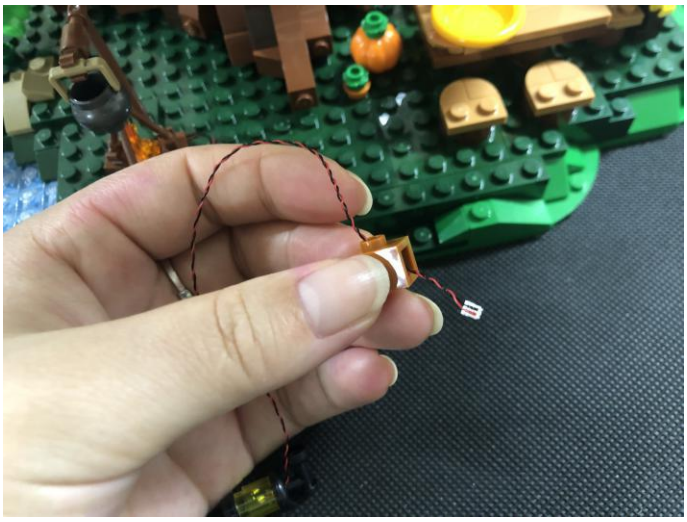
Take a warm white 15cm dot light, thread the light through the trans yellow lampshade



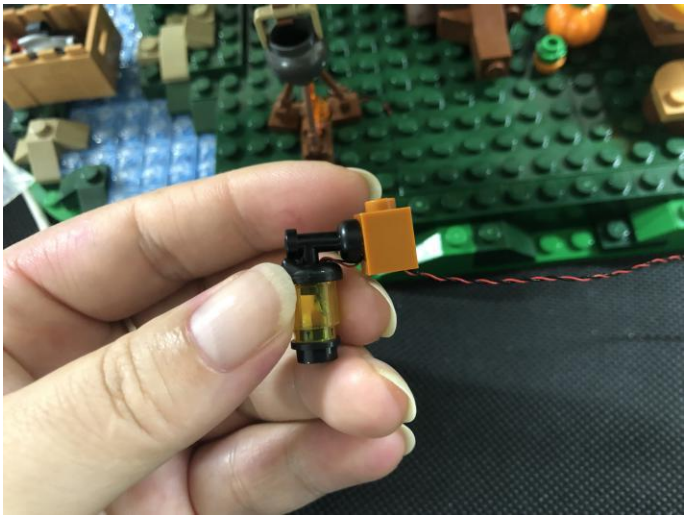
Reconnect the lamp



Remove the following piece, place the cable of the light as per below

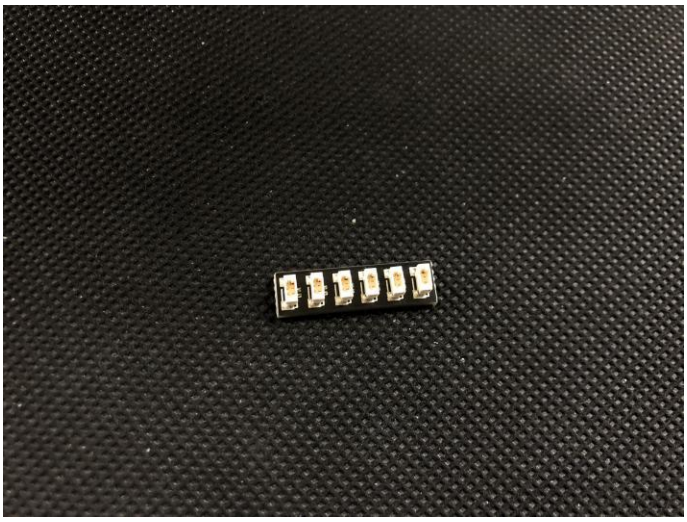


Reconnect the lamp

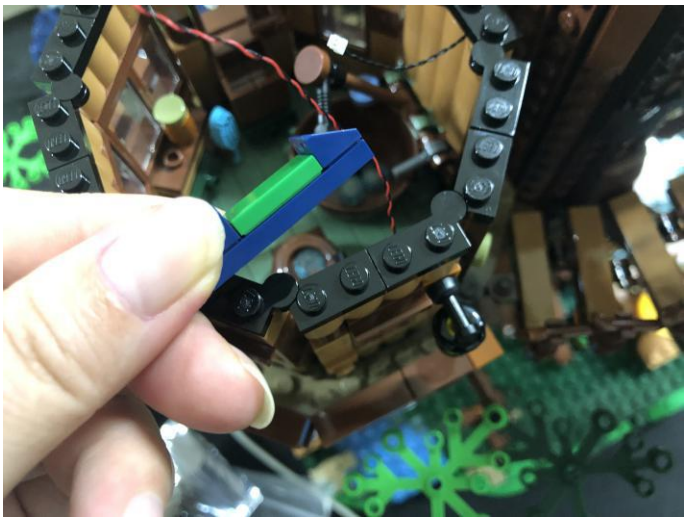
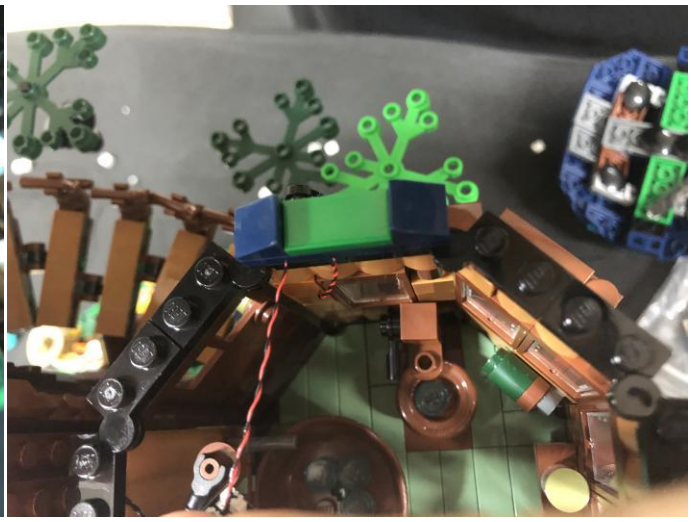
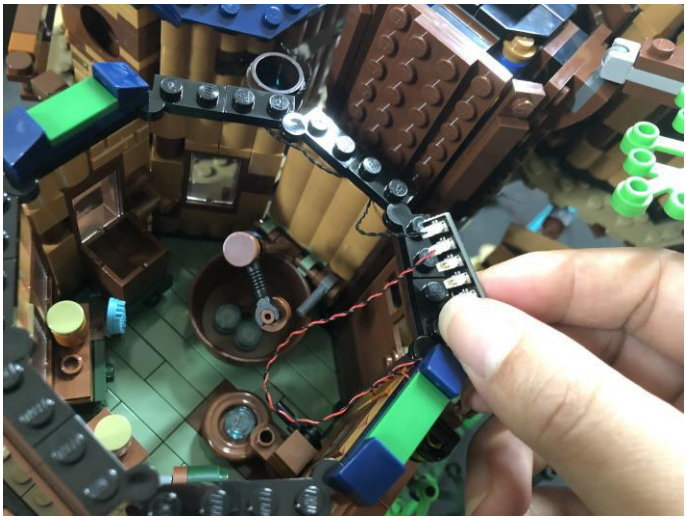


Reconnect the pieces we removed before

Take a 6-port expansion board, secure the excess cables with the following black pieces

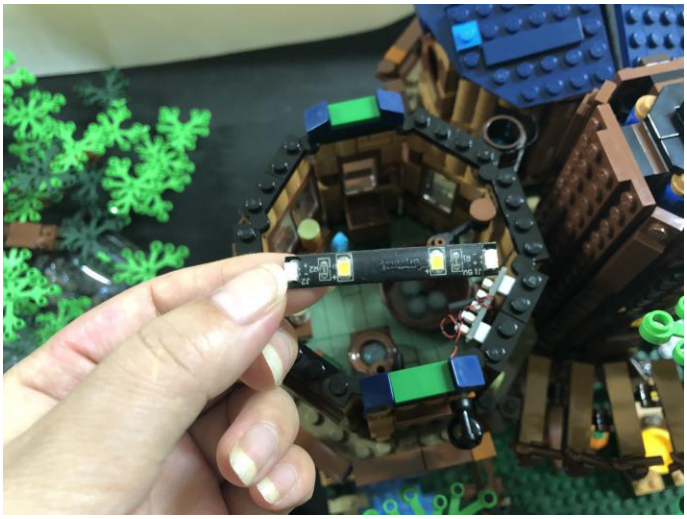


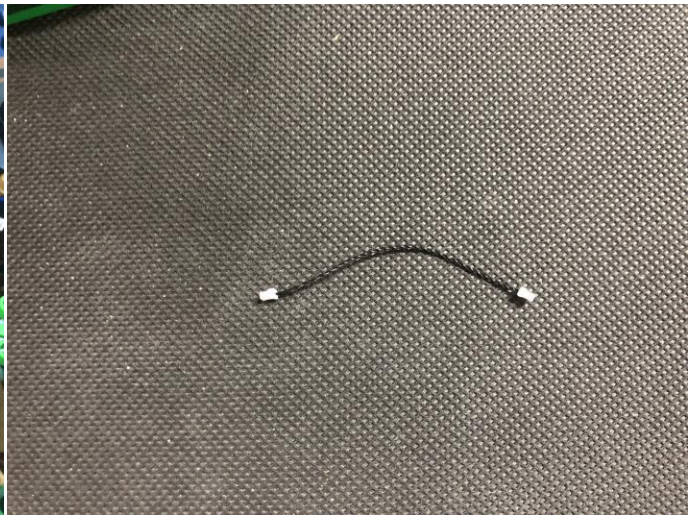
Remove the following piece to help to hide the cable, connect the cables to the expansion board

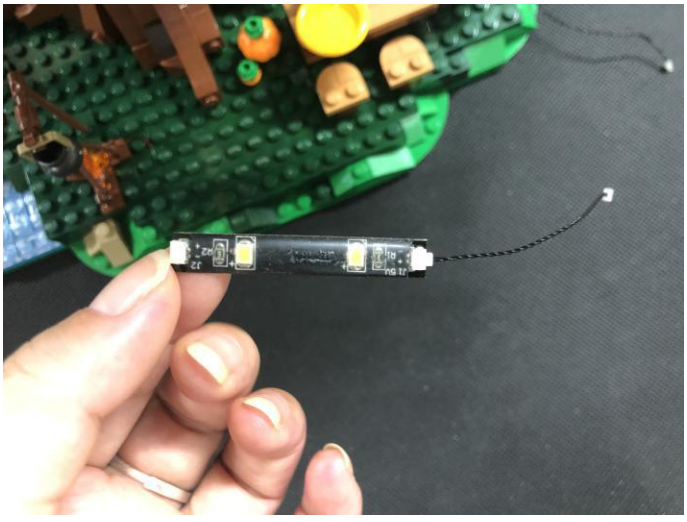
Stick the expansion board to the following position with adhesive square

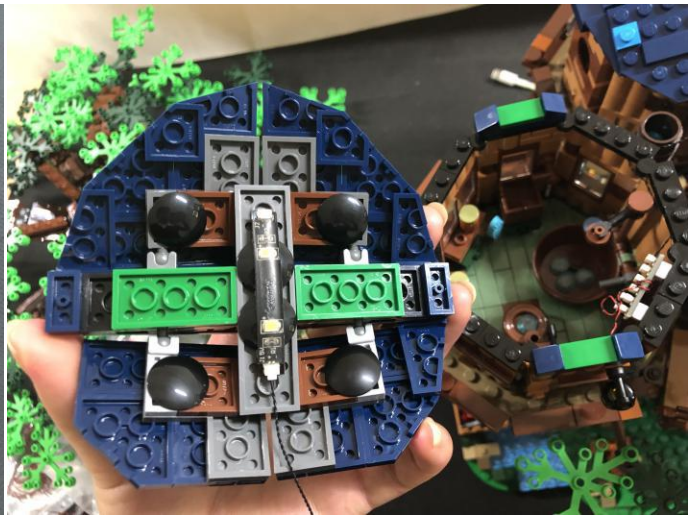
Take a warm white strip light(striplight#2), a 5cm connecting cable





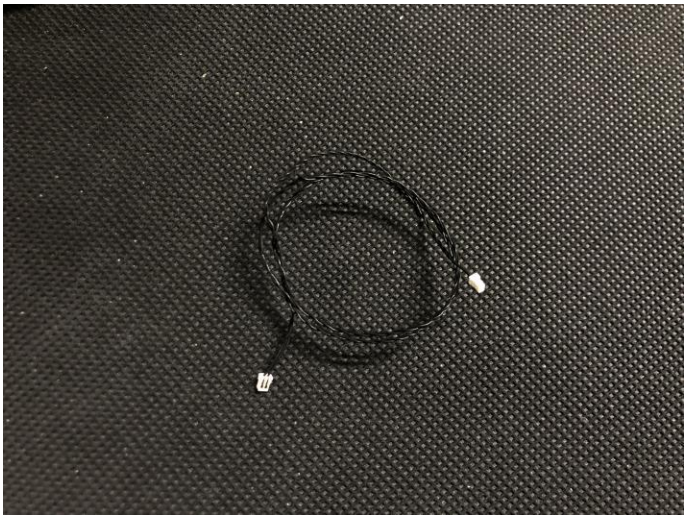
Connect the connecting cable to the right port of the strip light, stick the strip light to the ceiling of the bathroom





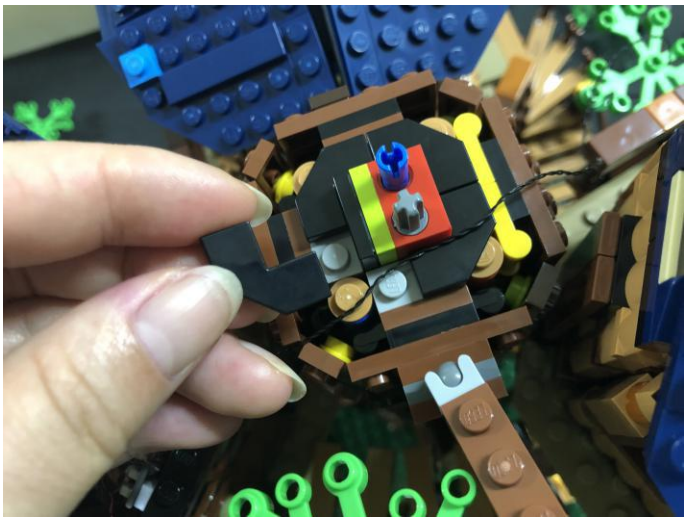
Connect the cable from the strip light to the expansion board

Take a 30cm connecting cable, connect it to the expansion board at the bathroom



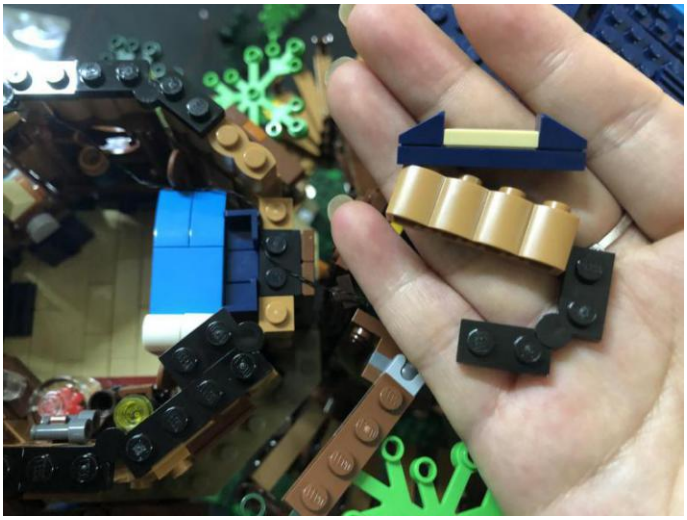
Pull the cable toward the children’s room

Remove the following piece to secure the cable



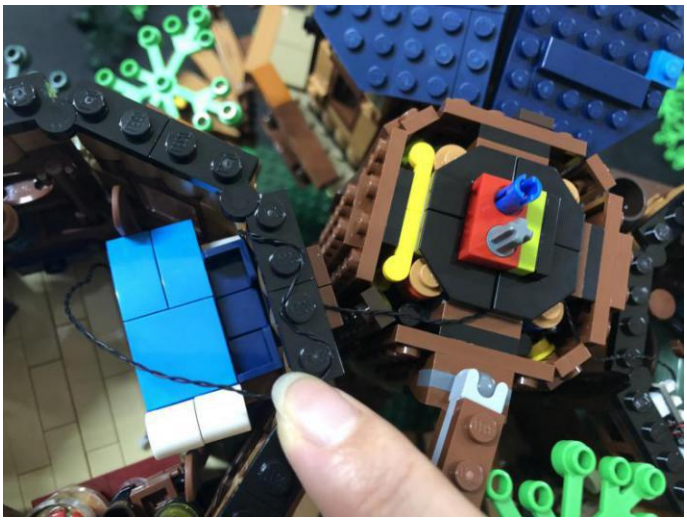
Remove the roof of the children’s room

Remove the following pieces beside the bed



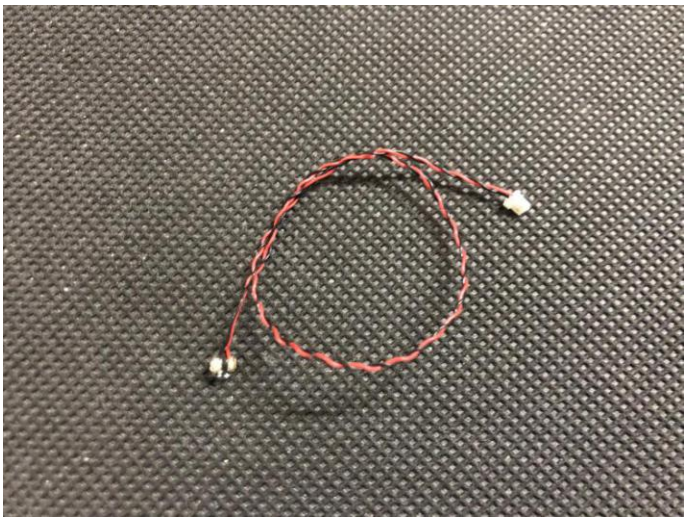
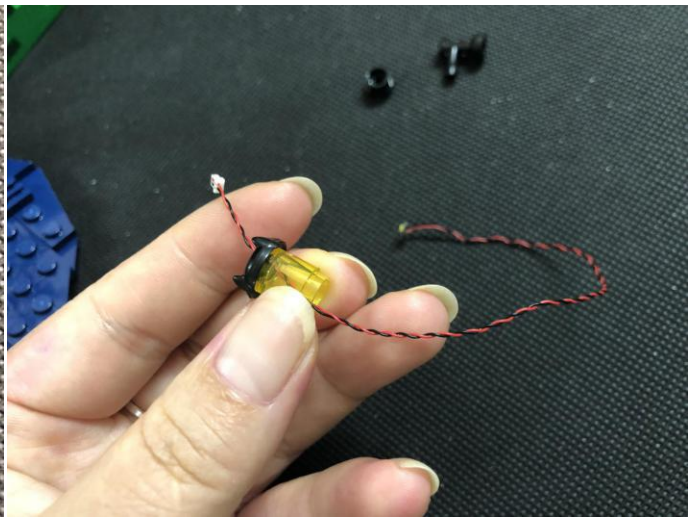
Reconnect the following plate and the light brown plate to secure the cable

Place the cable as per below, reconnect the blue part

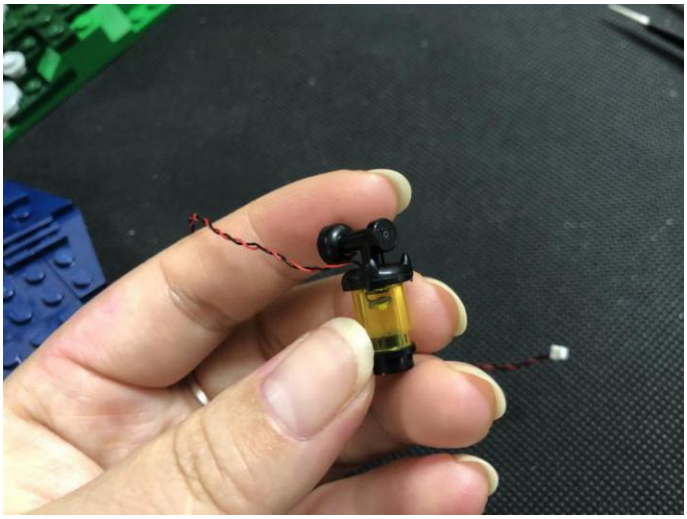


Move onto installing light at the front of the door, remove the lamp and disconnect it

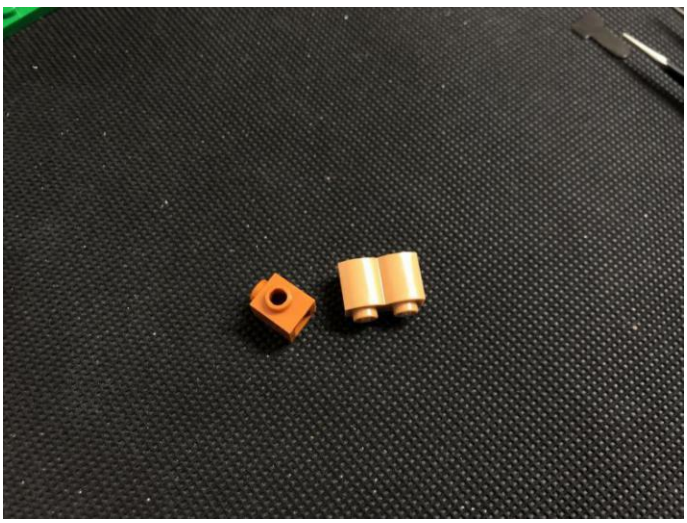
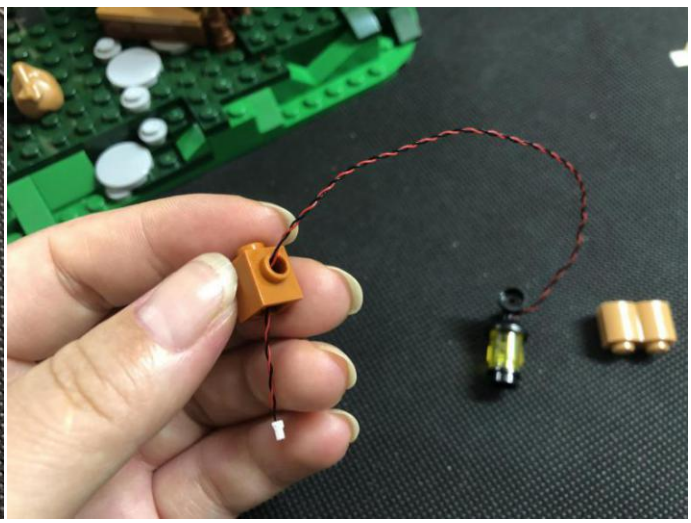
Take a warm white 15cm dot light, thread the light through the trans yellow lampshade

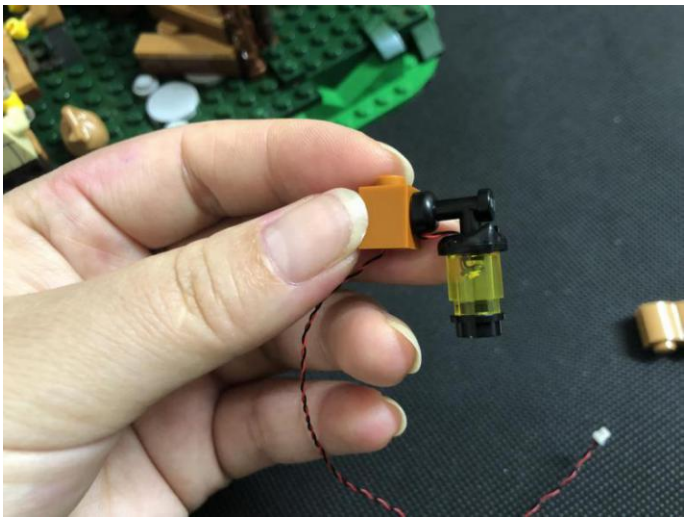
Reconnect the lamp



Remove the following 2 pieces, thread the connector of the light through the orange piece

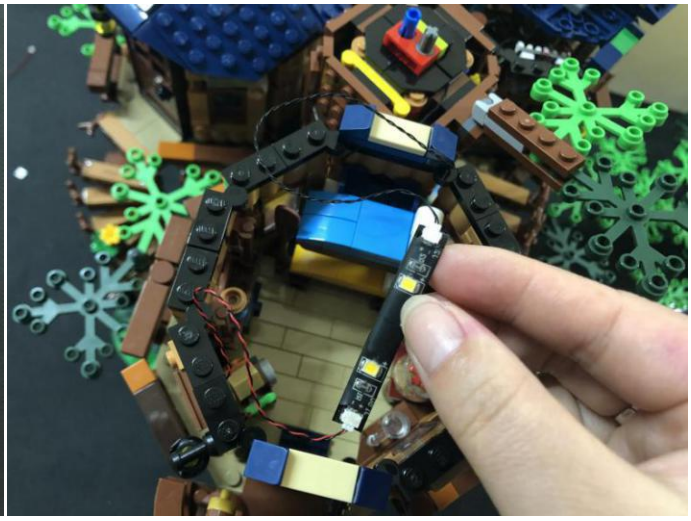



Reconnect the lamp



Reconnect the pieces we removed, pull the cable toward the inside, wind it on the following piece, secure the cable with the following piece

Take a warm white strip light(striplight#3), connect the cable from the bathroom to the right port of the strip light

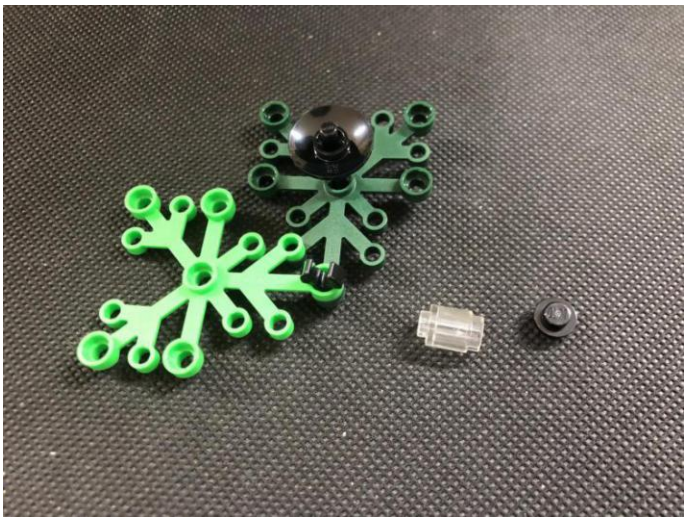


Stick the striplight#3 to the ceiling of the children's room, secure the cable with the round black piece

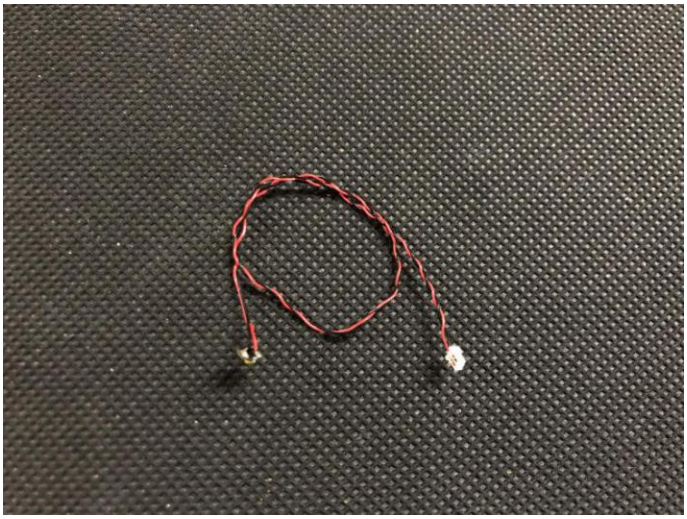
Reconnect the roof

Now, we’ll install lights for the tree. Start from the one beside the swing. Remove the leaf and the lamp

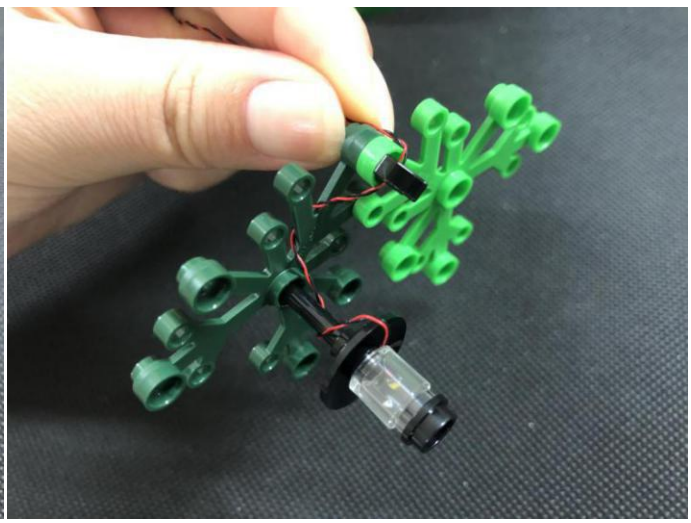
Disassemble them as per below



Take a warm white 15cm dot light, thread the light through the following piece

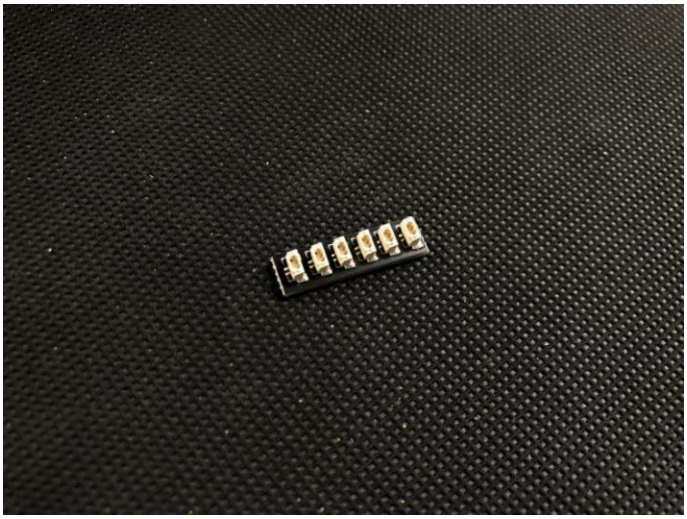


Wind the cable around the lamppost and the leaf

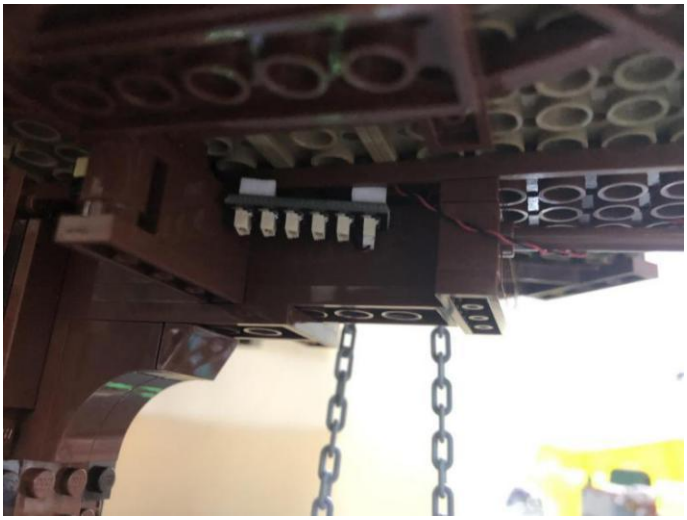


Reconnect the pieces we removed before, wind the cable around the branch as per below

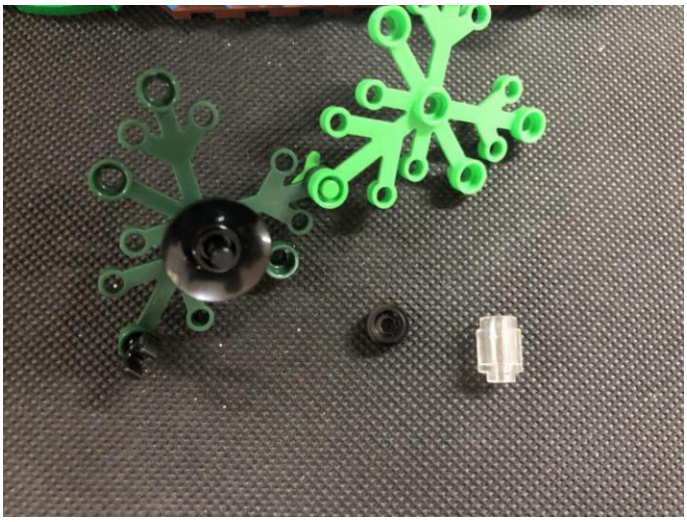
Take a 6-port expansion board, connect the cable of the light to it



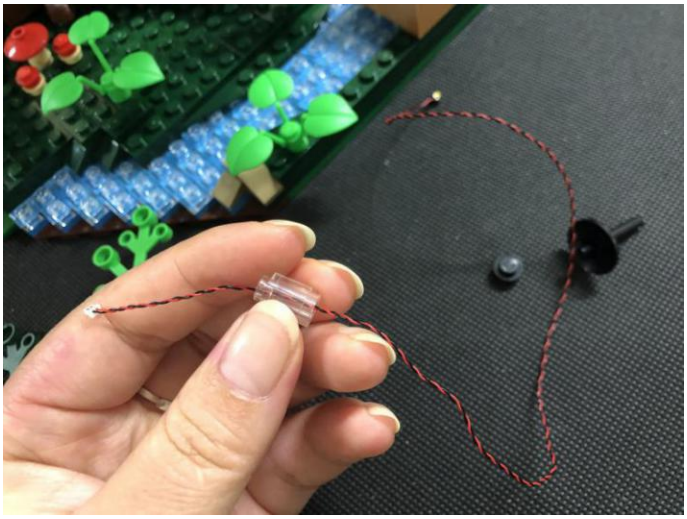
Stick the expansion board underneath the house with adhesive squares



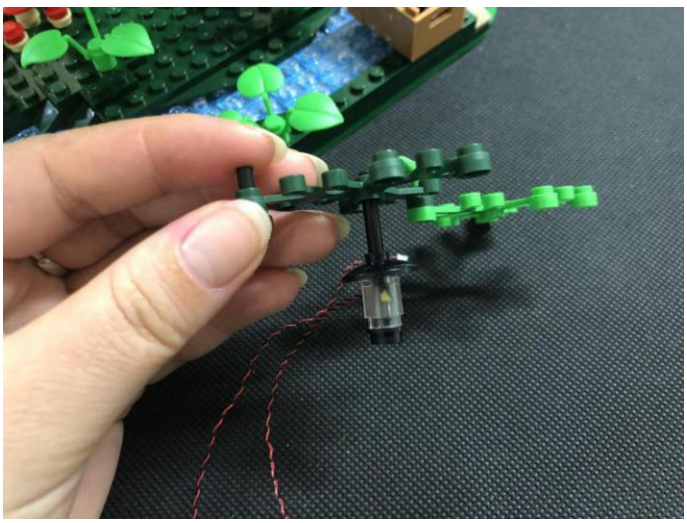
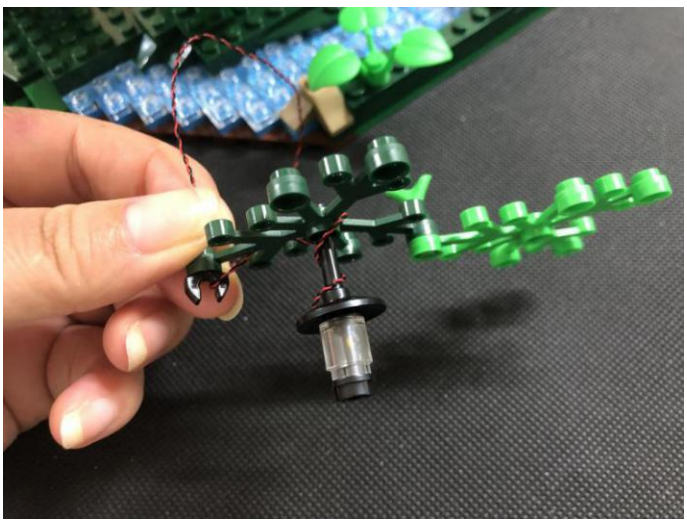
Continue to install light outside the bathroom. Remove the following pieces



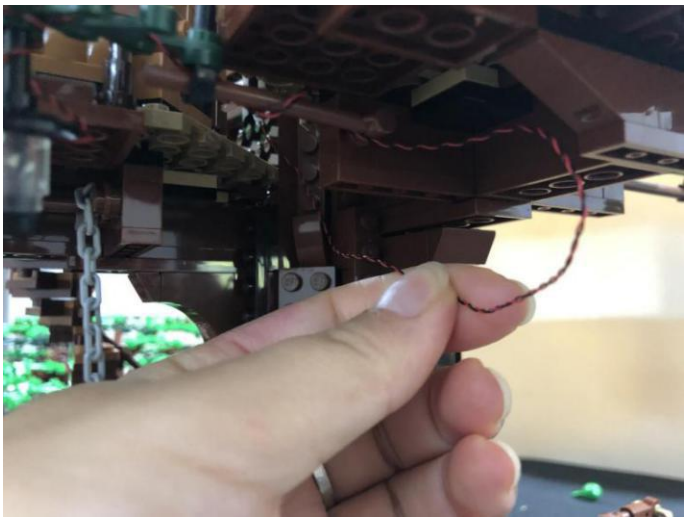
Take a warm white 30cm dot light, thread the connector through the following piece



Reconnect the lampshade, wind the cable around the lamp post and the leaf

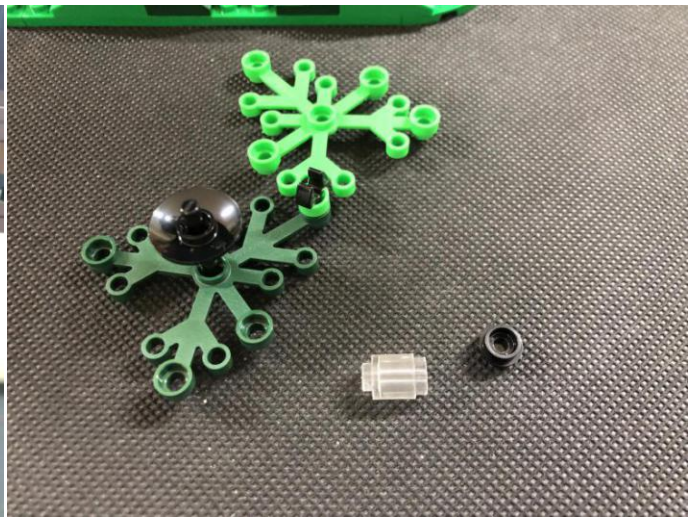



Reconnect the piece, wind the cable around the branches, place it as per below

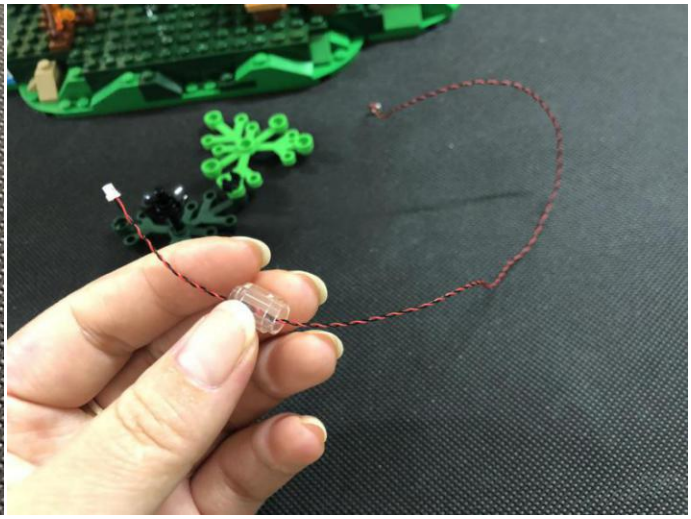


Connect the cable to the expansion board

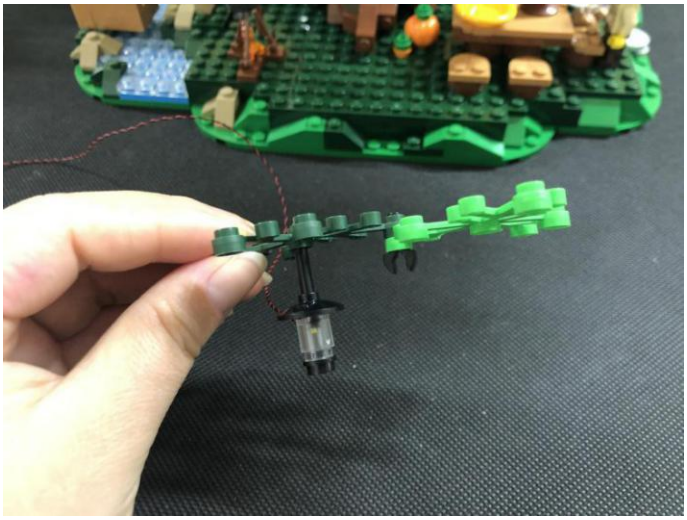
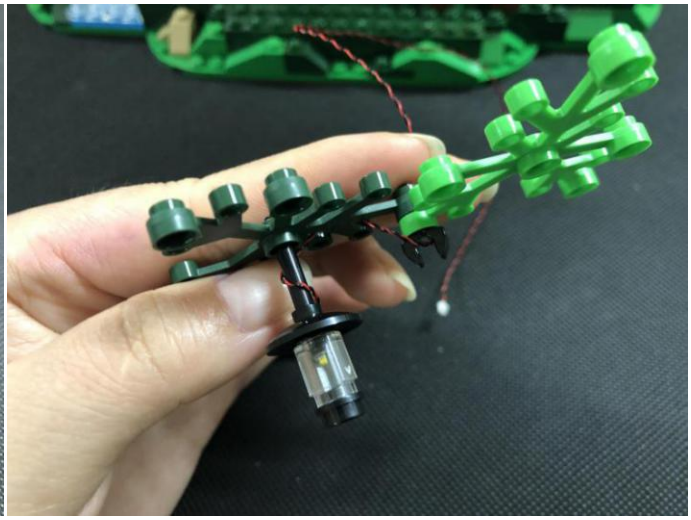
Then, we’ll install light for the hanging lamp beside the fence. Remove the following pieces



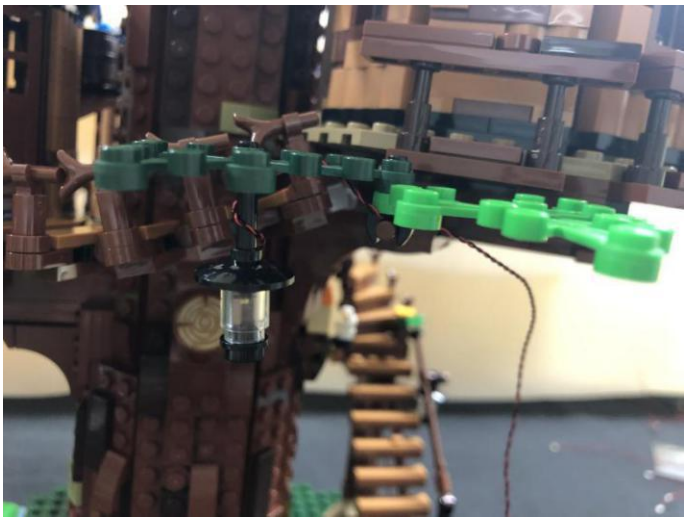
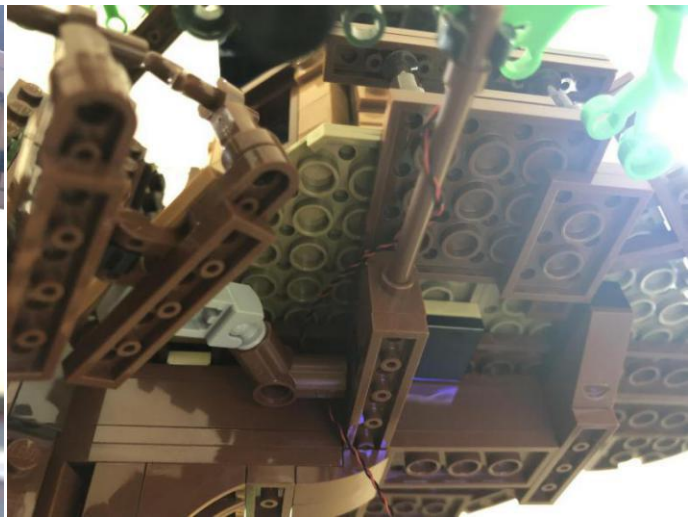
Take a warm white 30cm dot light, thread it through the following piece



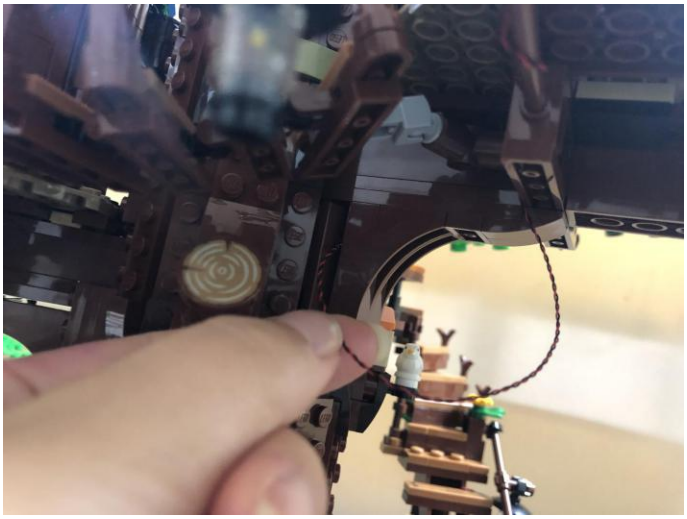
Reconnect the lamp, wind the cable around the lamp post and the leaf

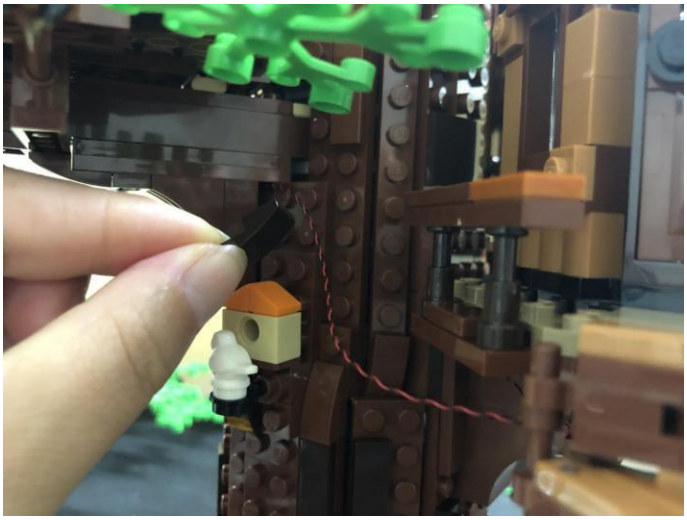
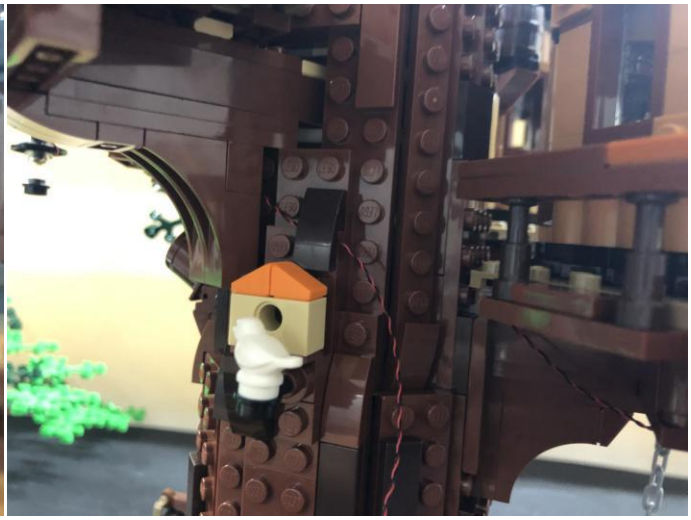
Reconnect the piece, wind the cable around the branches

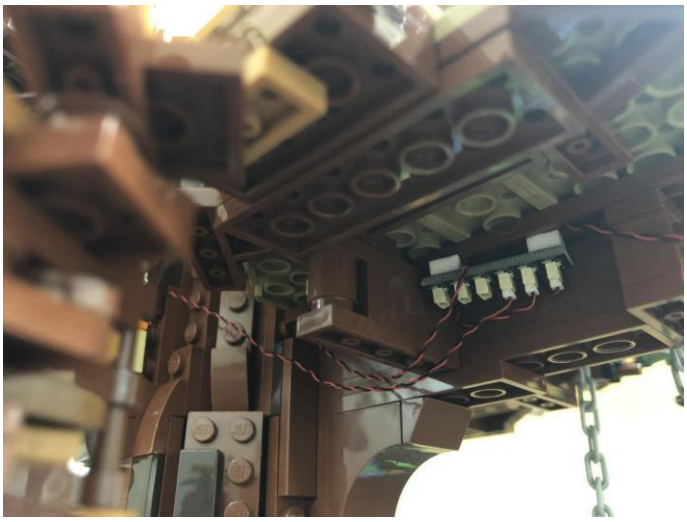
Thread the cable through the following space, pull it out beside the nest



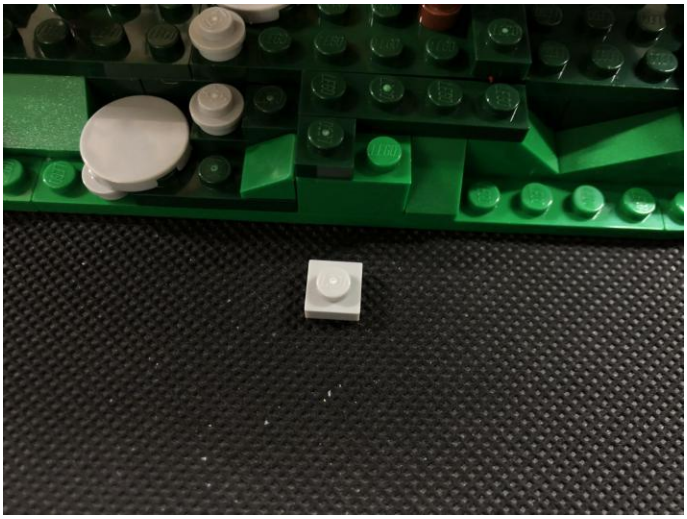
Remove the brown piece at the back of the nest to secure the cable

Connect the cable to the expansion board

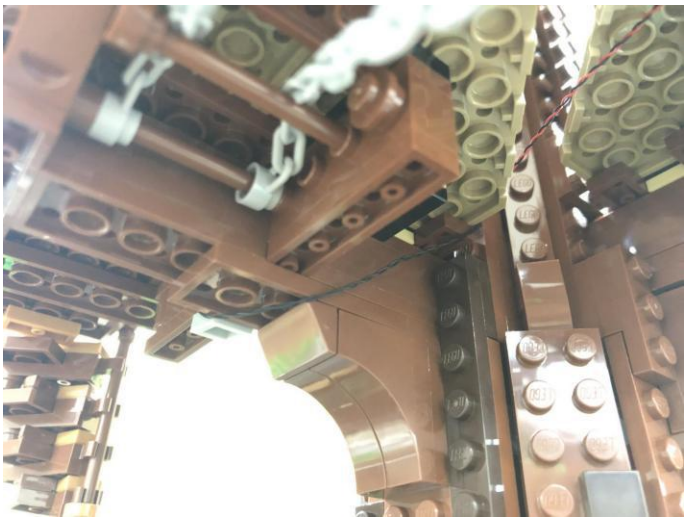
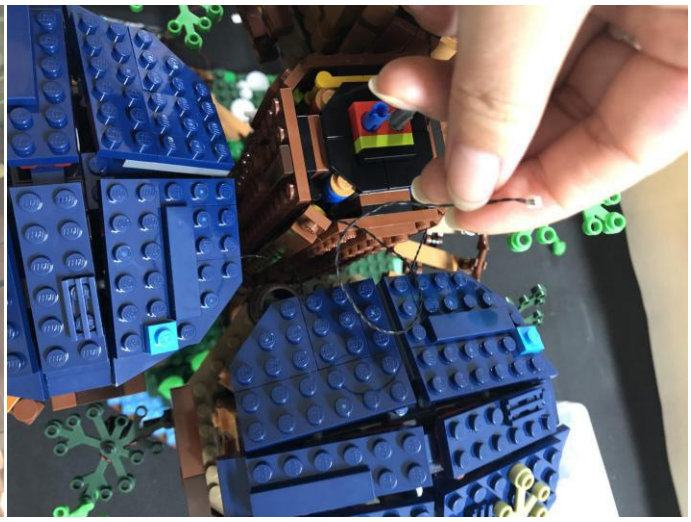


Take a 1x1 plate, to secure the following 2 cables

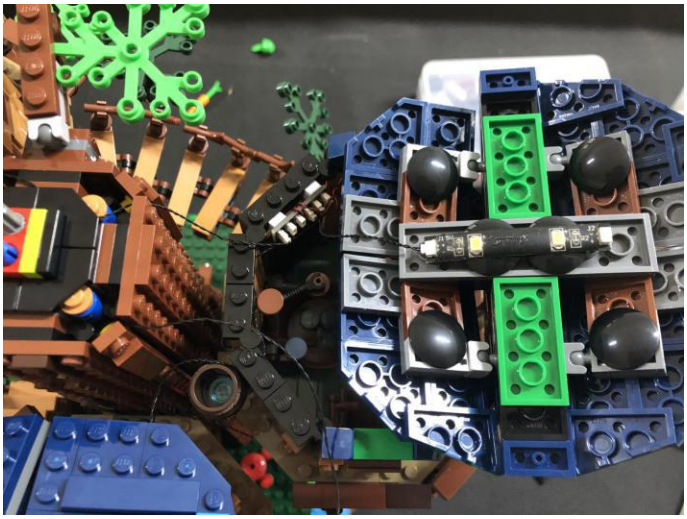


Take a 50cm connecting cable, connect it to the expansion board

Pull the cable up from the bottom

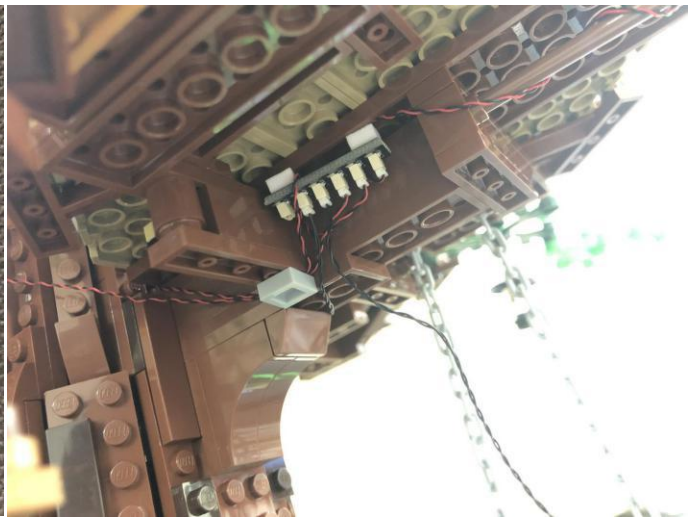



Pull the cable toward the bathroom, connect it to the expansion board inside the bathroom

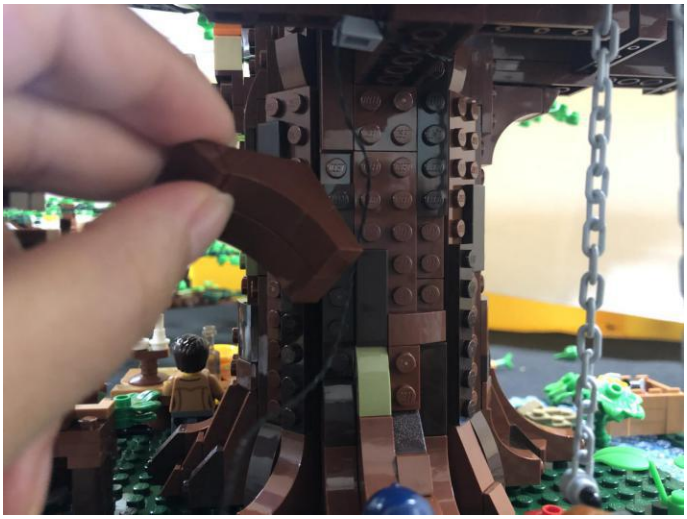


Reconnect the roof of the bathroom

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

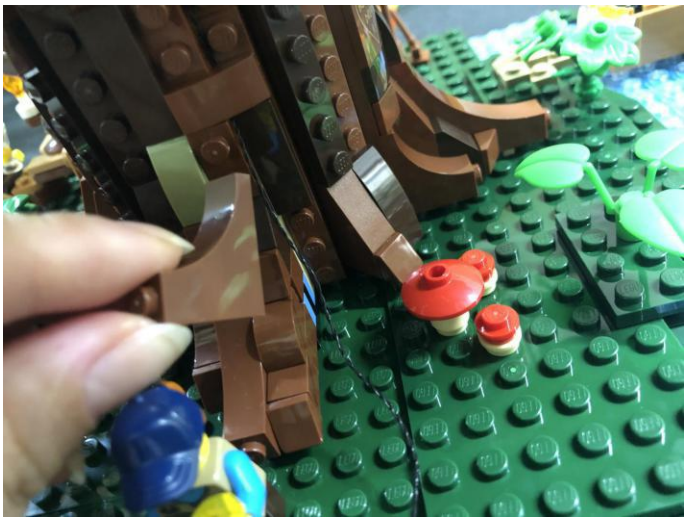


Remove the following piece to secure the cable

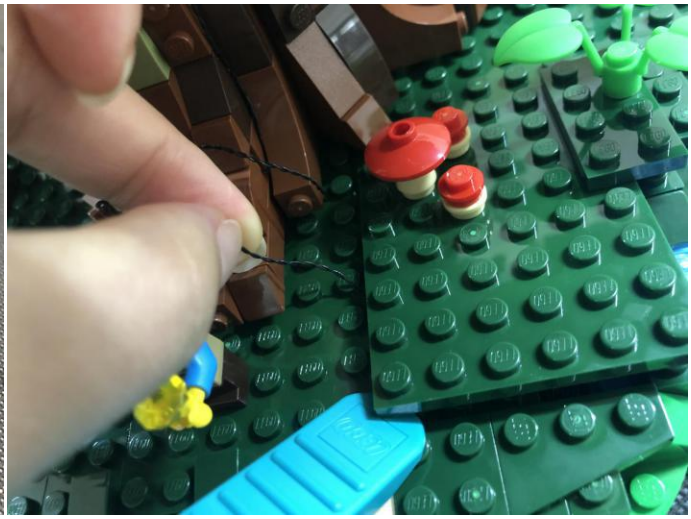


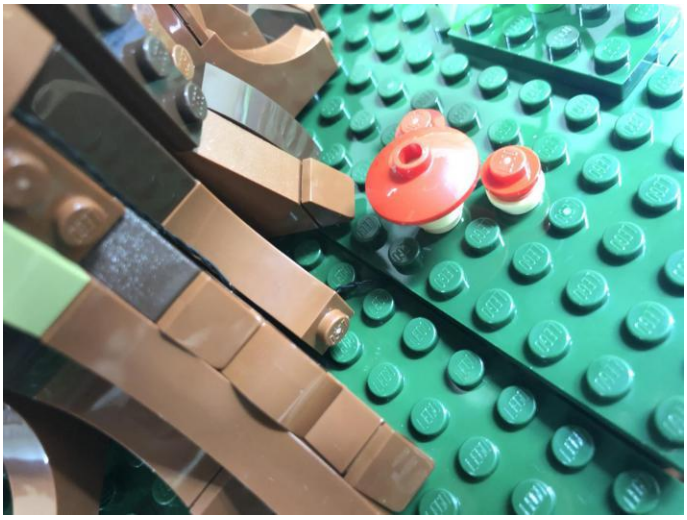
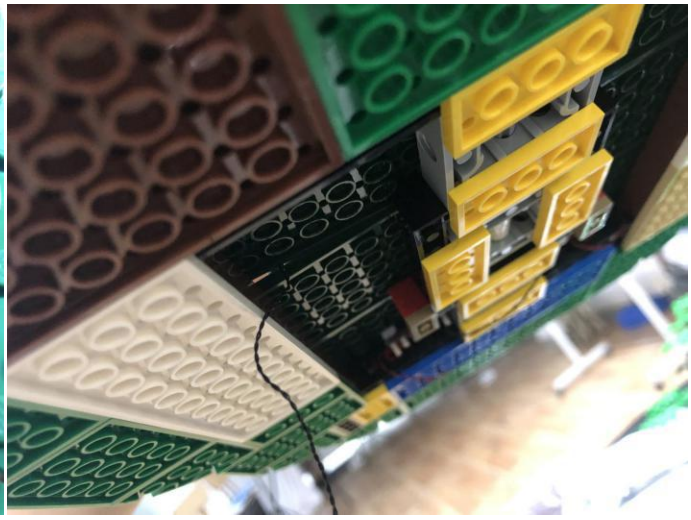
Remove the following 1x2 piece, place the cable underneath, reconnect the piece

Continue to remove the following piece to secure the cable



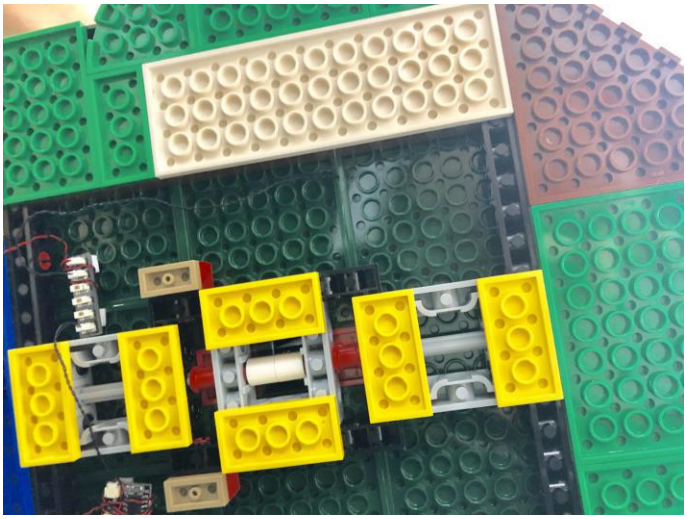
Lift the following piece to thread the cable through and pull it out from the bottom



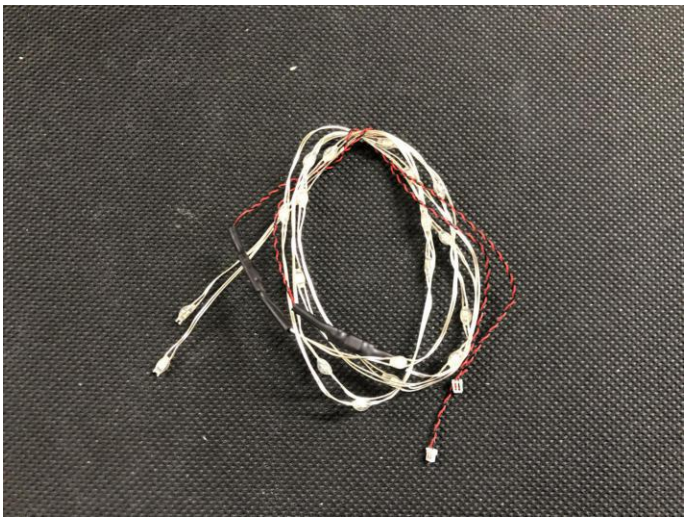
Reconnect the piece we lifted

Connect the connecting cable to the expansion board underneath

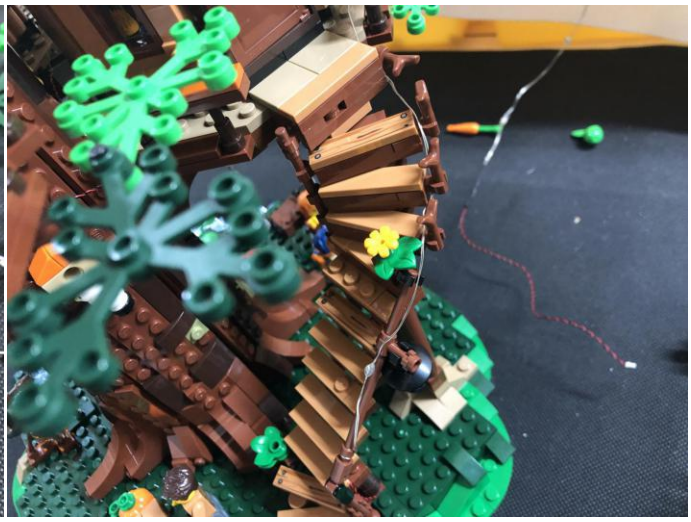


You can turn the power on to test the current

Now, we’ll continue to install lights for the stairs and the railings
Take 2 Multi Colour Light Strings



Take one of the Multi Colour Light String(lightstring#1), wind the string around the railing as per below



After finishing winding the first string, place the rest of the cable as per below

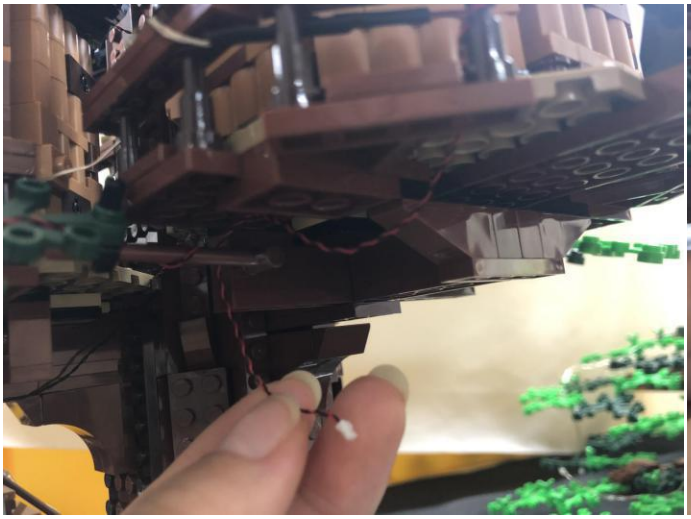
Take another Multi Colour Light String (lightstring#2), start from the right railing outside the bathroom, wind the string as per below

Wind the string around the railing till the end of the string

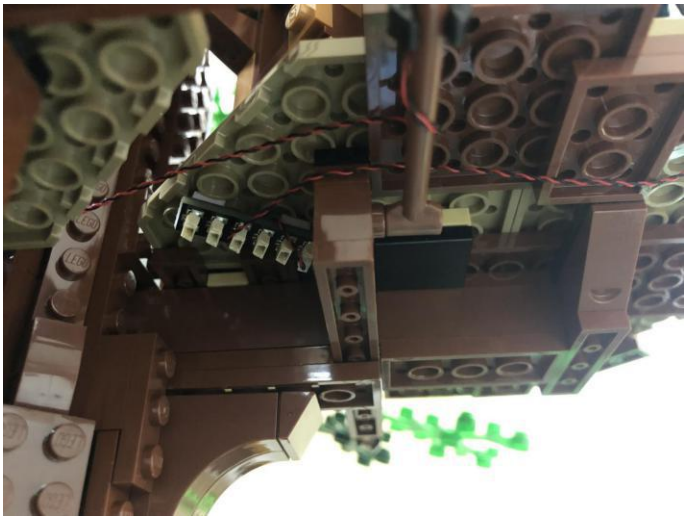
Wind the cable downward around the post

Take a 6-port expansion board

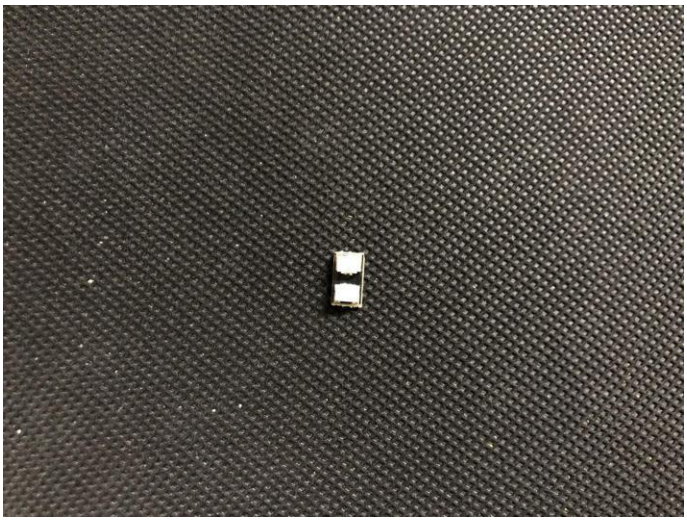
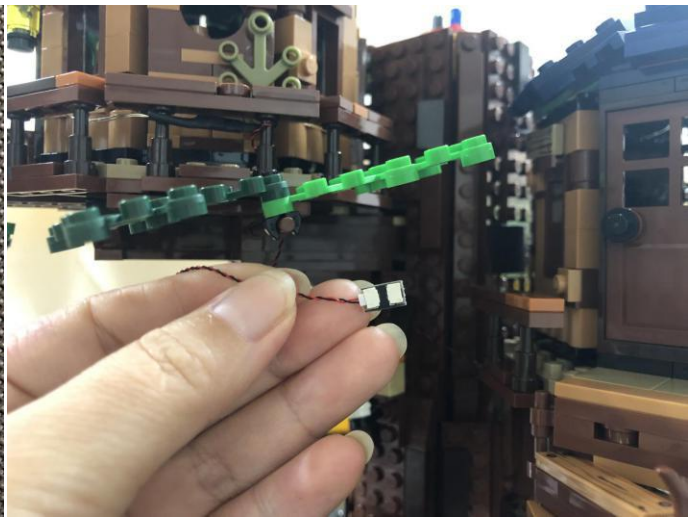
Place the lightstring#1 as per below before connecting it to the expansion board



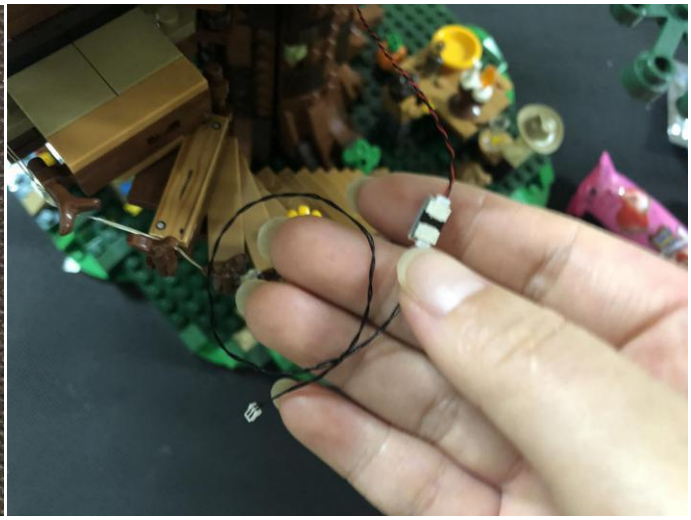
Stick the expansion board to the following place with adhesive squares



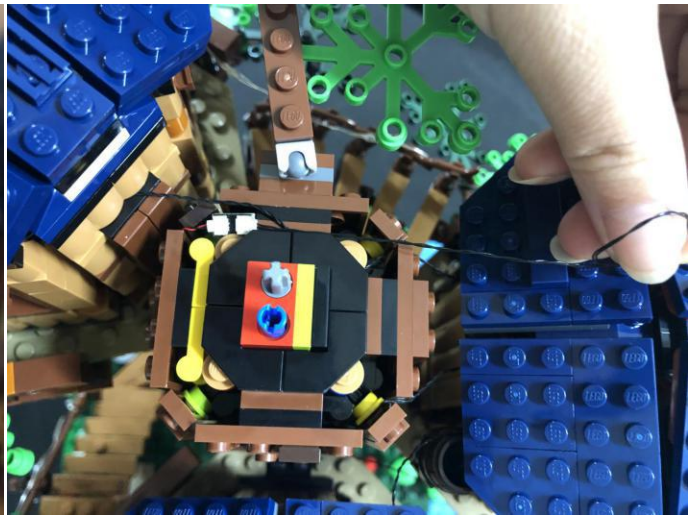
Take a 2-port expansion board, connect the lightstring#2 to it

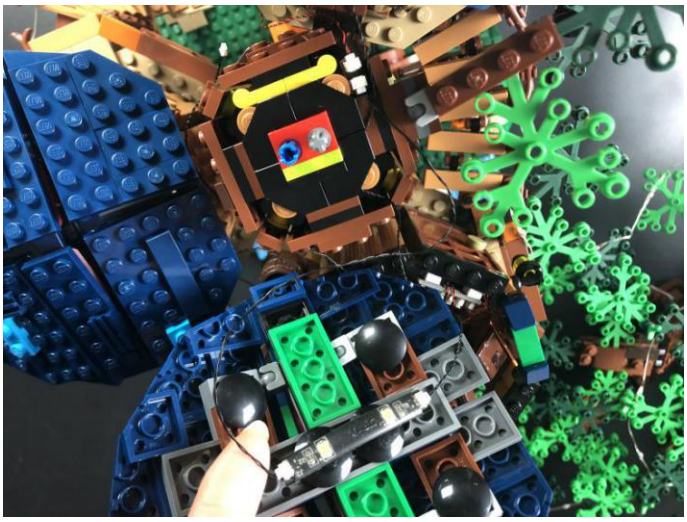



Take a 15cm connecting cable, connect it to the 2-port expansion board

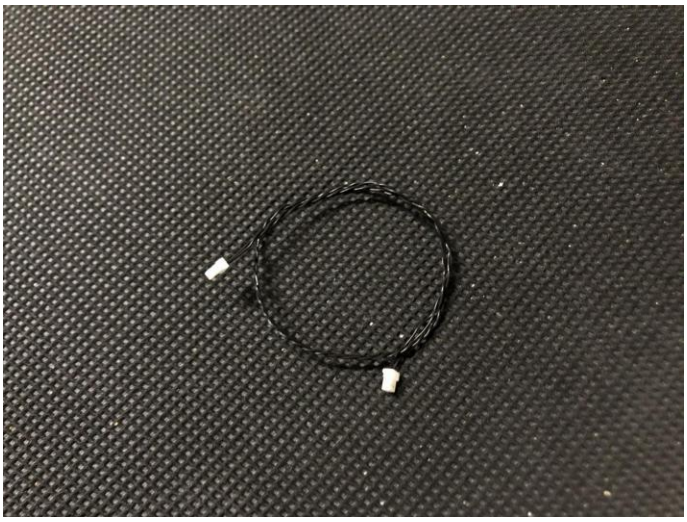


Pull the cable up from the back of the house, then, connect it to the expansion board inside the bathroom

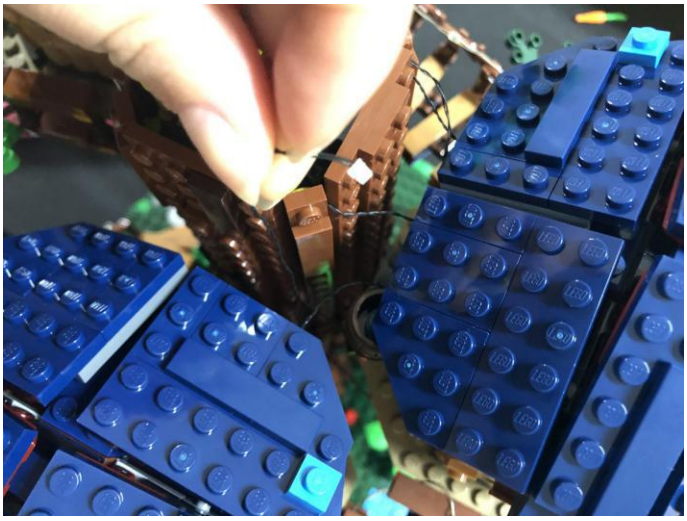




Take another 15cm connecting cable, connect it to the expansion board which connected to lightstring#1



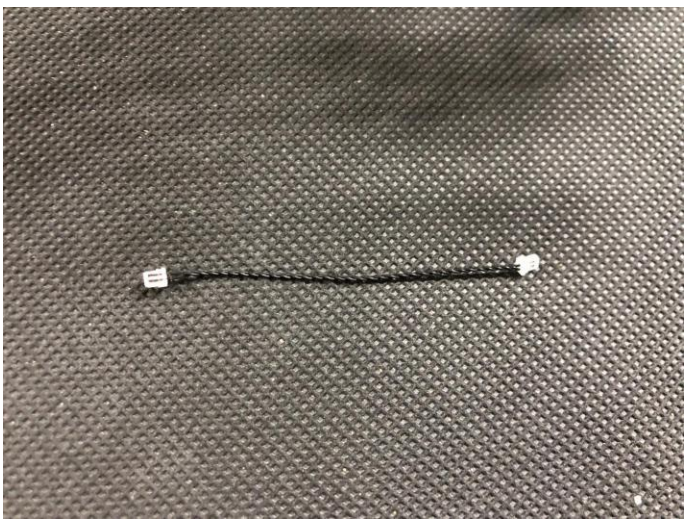
Pull the cable upward, remove the roof of the bathroom, connect it to the expansion board inside the bathroom



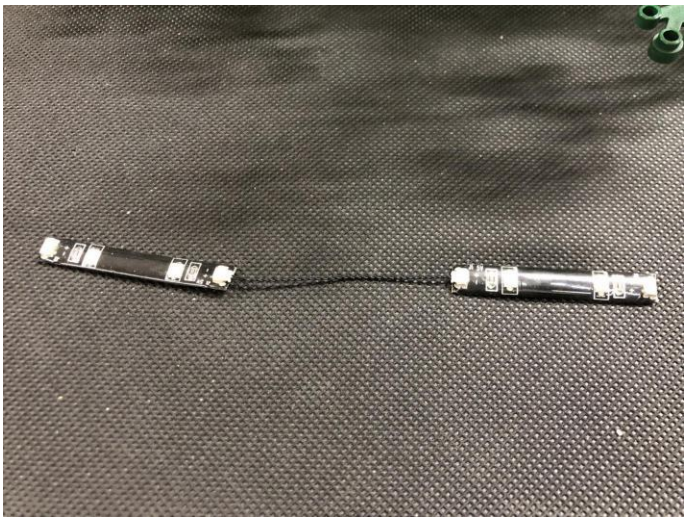
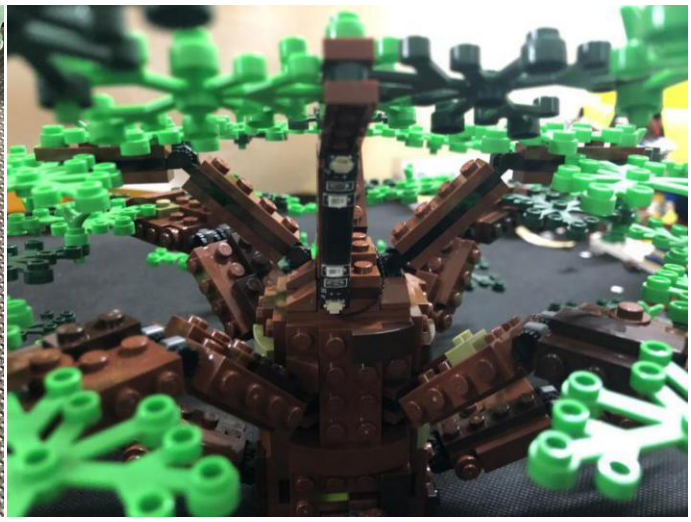
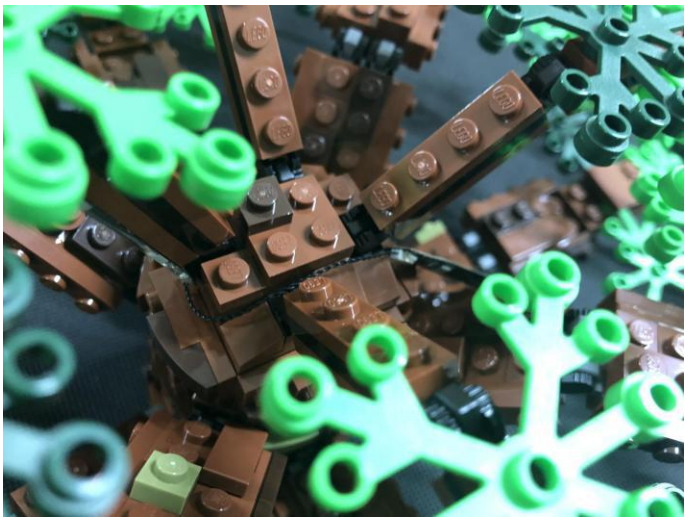
Reconnect the roof

Then, we will install lights for the tree

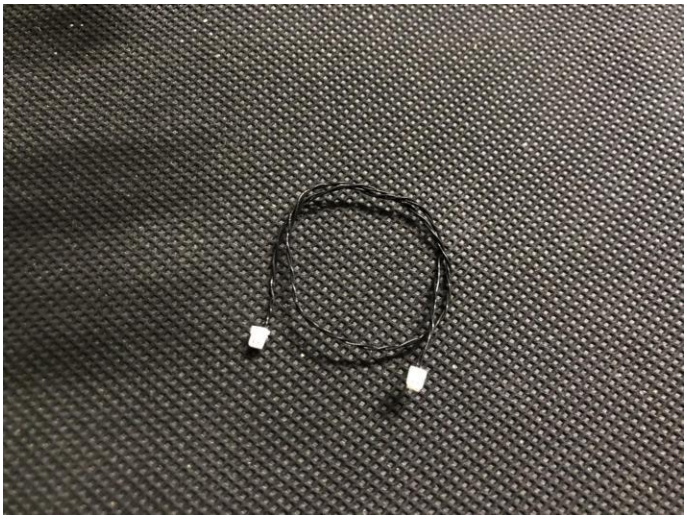
Take 2 green strip lights, a 5cm connecting cable



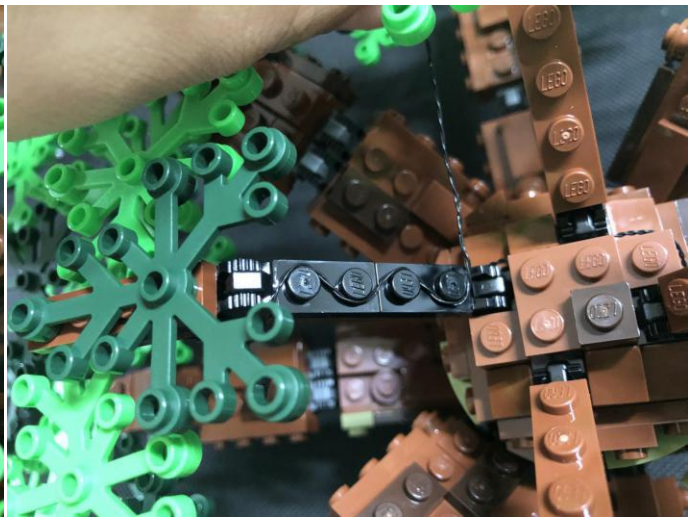
Assemble the 2 strip lights together by using the 5cm connecting cable, stick the strip light to the top of the trunk, stick the other strip to the trunk at the opposite side

Take a 15cm connecting cable, connect it to any spare port of the strip lights

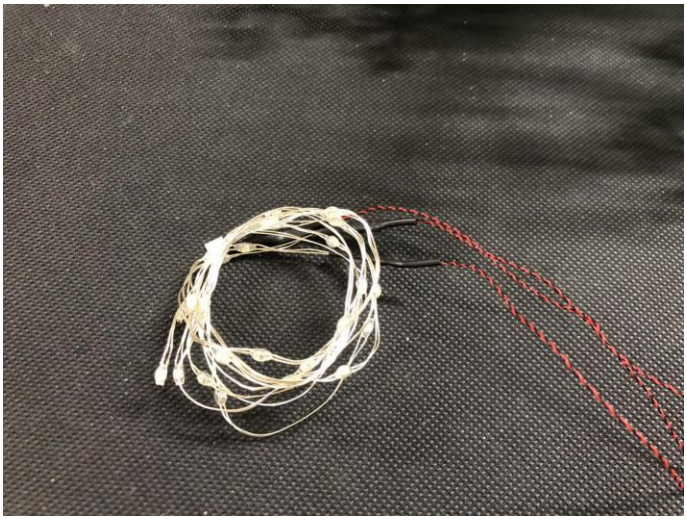


Remove the 1x4 piece, place the connecting cable as per below

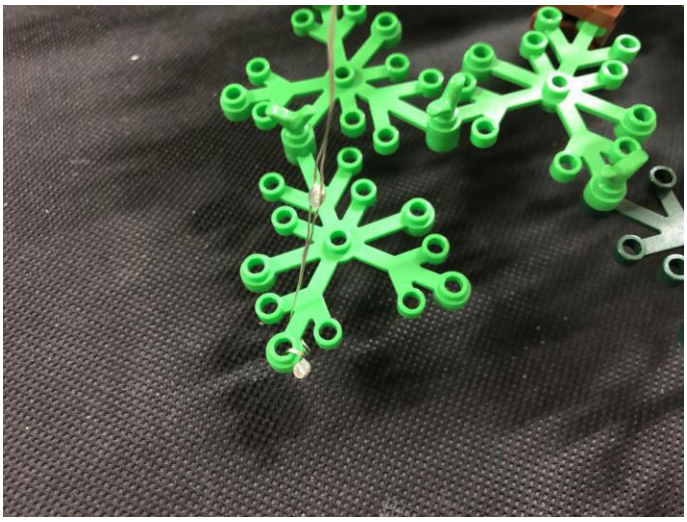


Reconnect the 1x4 piece, pull the cable downward

Take 3 Multi Colour Light Strings



Wind them to the tree

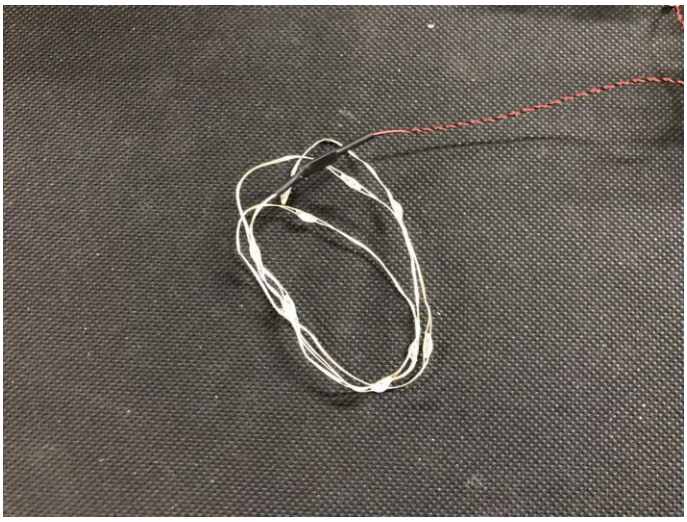


Wind the strings around the leaves of the first and the second floor

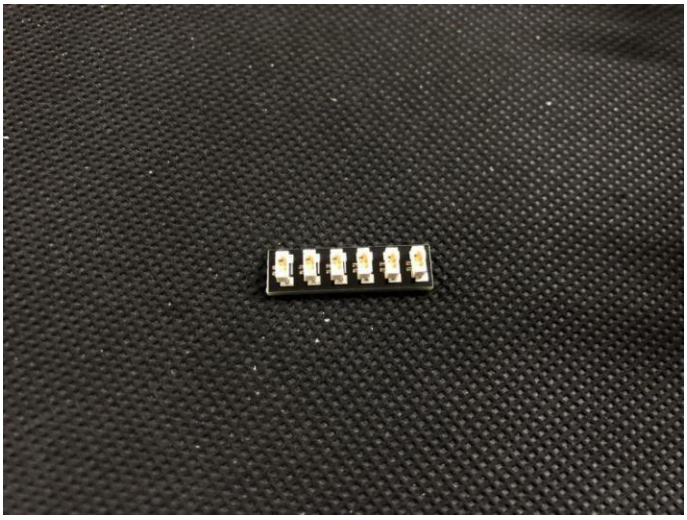
After finishing the winding, pull the stings toward the strip lights

Repeat the steps above to install the last 2 Multi Colour Light Strings as per below

Take a Multi Colour Light String, place it at the leaves of the top floor

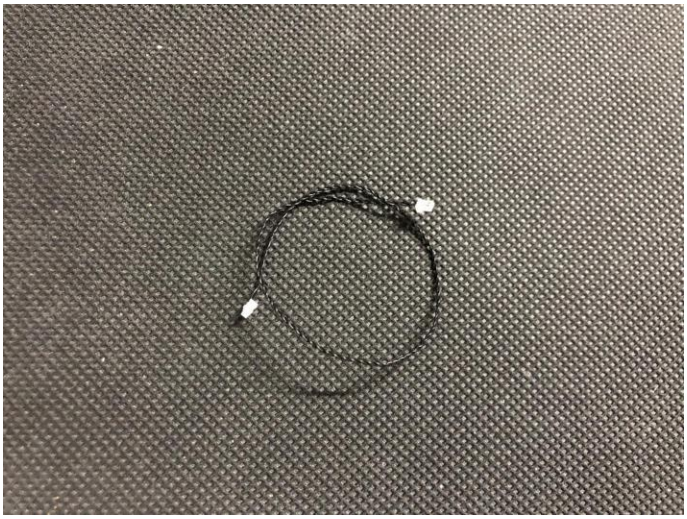


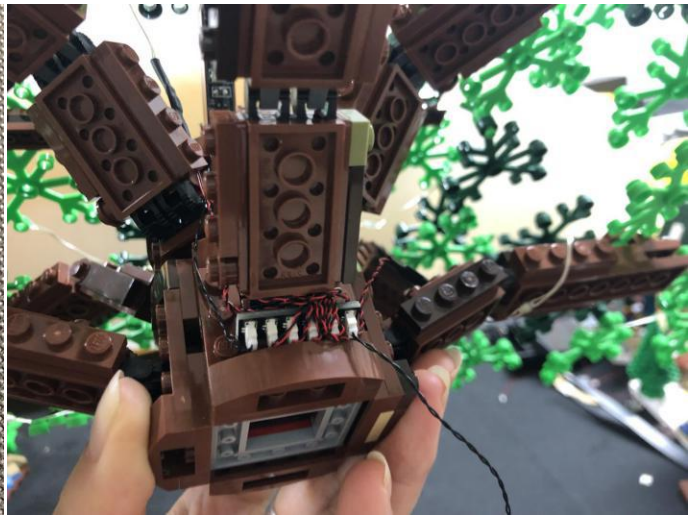
Take a 6-port expansion board, turn the tree down



Connect all the cables to the expansion board, tuck expansion board as per below

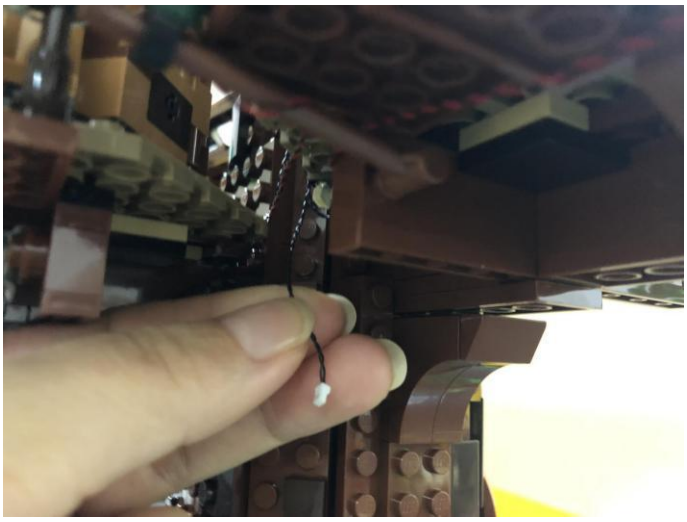
Take a 15cm connecting cable, connect it to the expansion board



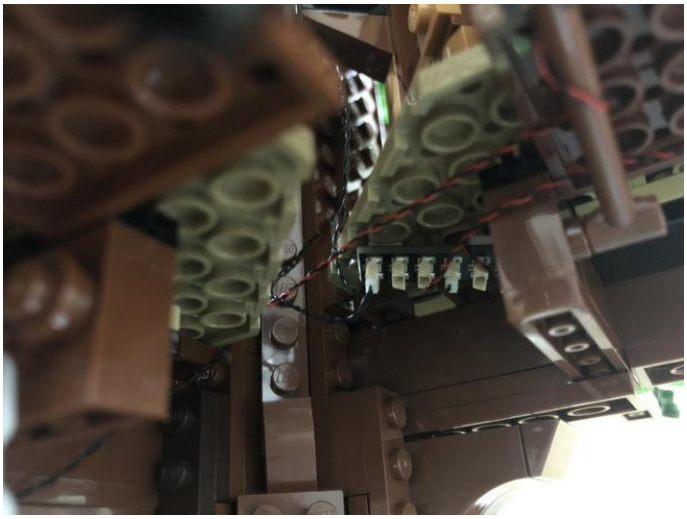


Reconnect the top of the tree

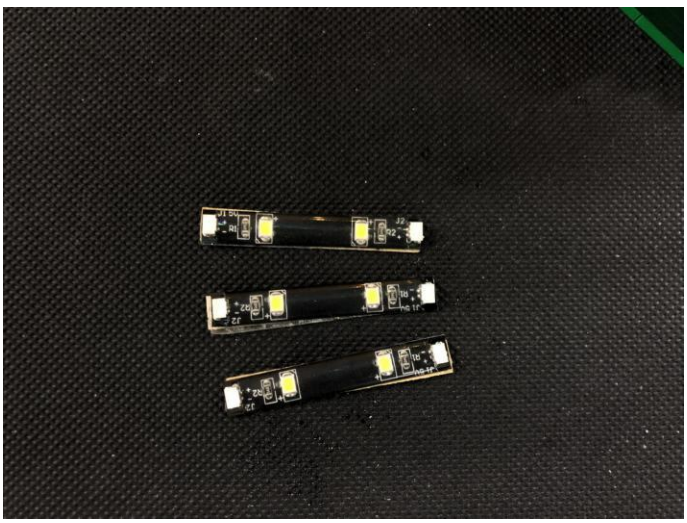
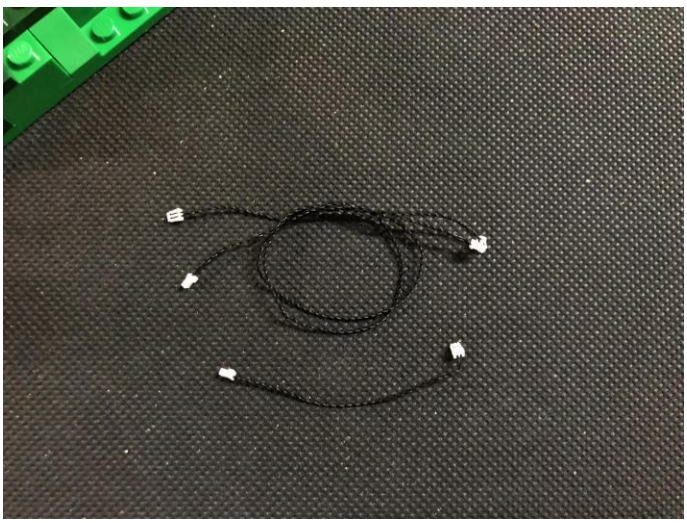
Thread the cable through the space between the bathroom and the bedroom, connect it to the expansion board which lightstring#1 is connected



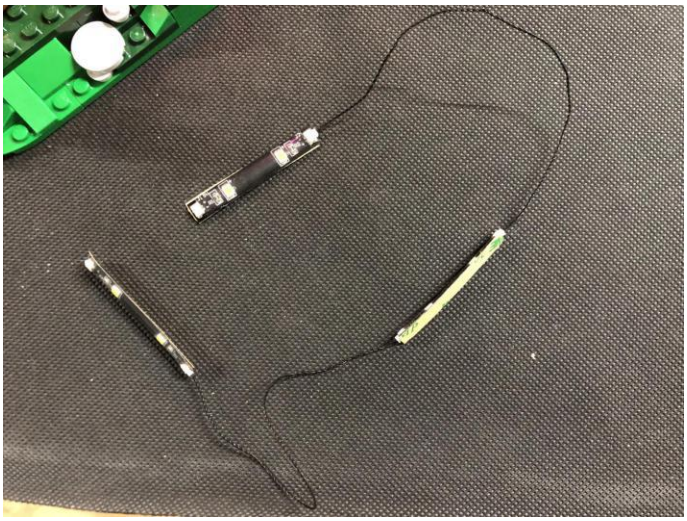
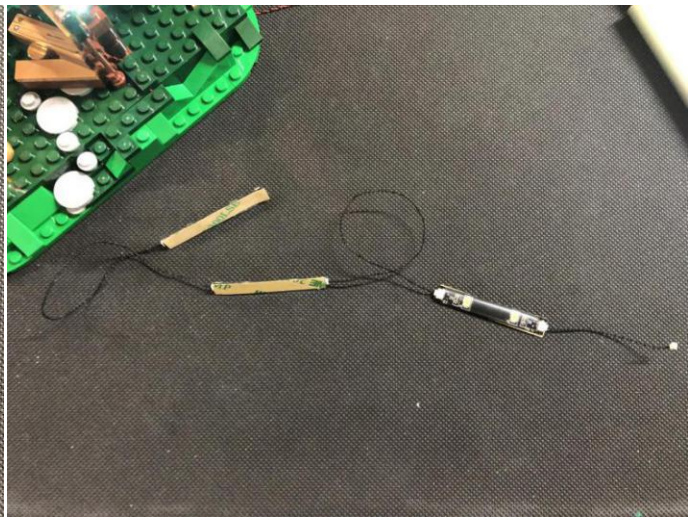
Connect the cable to the expansion board



Take 3 warm white strip lights, two 15cm connecting cable, a 5cm connecting cable

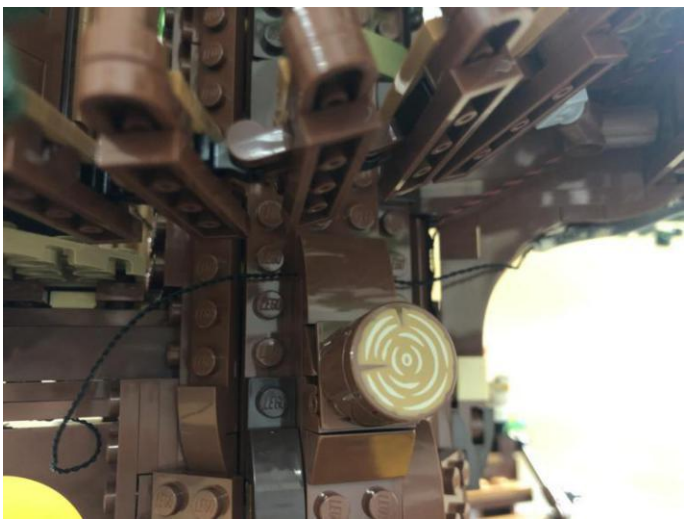
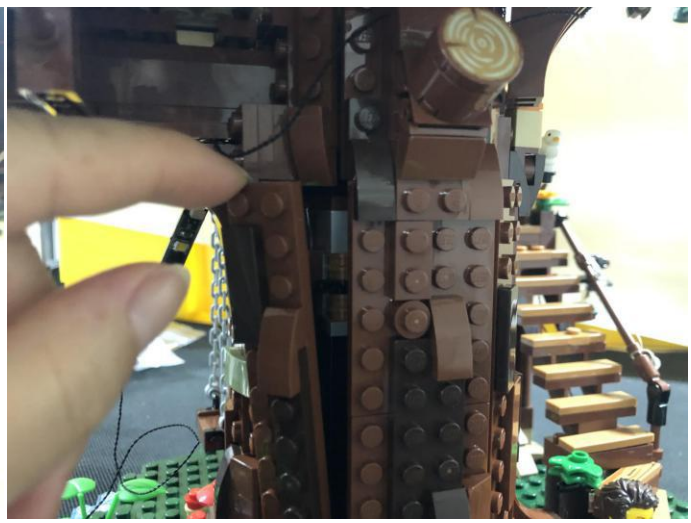



Assemble the 2 cables and the 3 strip lights together as per below, then, connect the 5cm connecting cable to the strip light at far right

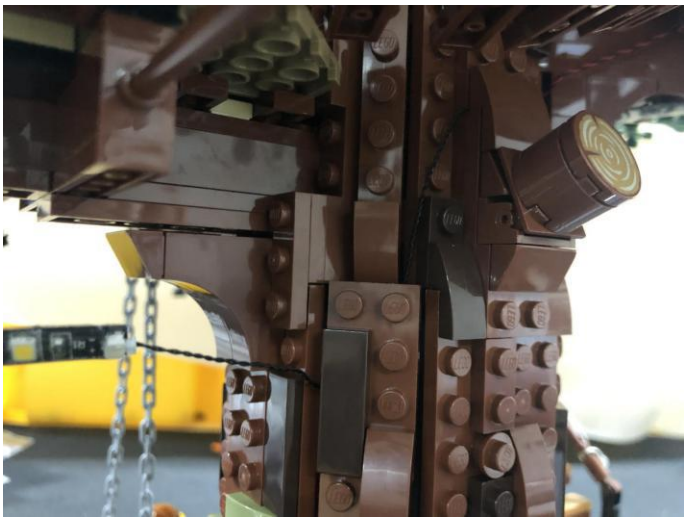



Stick the far left strip light underneath the children’ s room

Secure the connecting cable with the following pieces

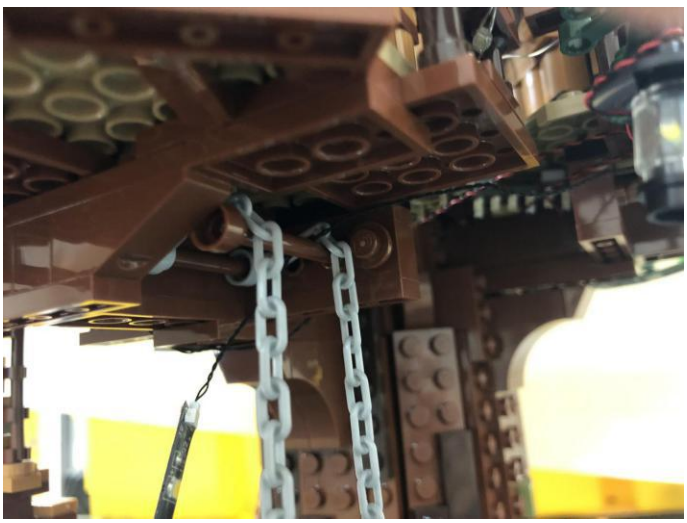



Place the connecting cable as per below



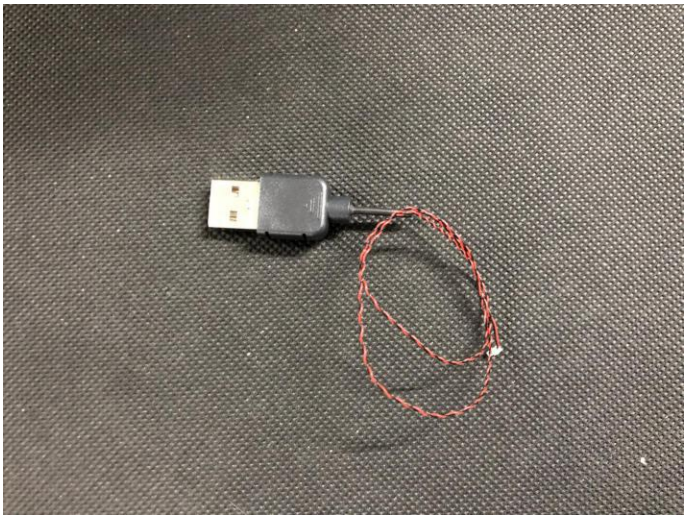
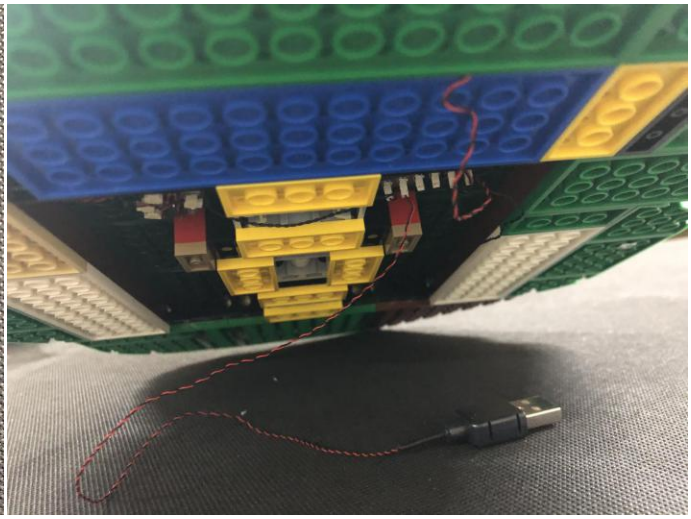
Stick the second strip light underneath the bathroom

Continue to place the last strip light as per below



Stick the strip light over the swing, connect the 5cm connecting cable to the expansion board nearby

Take the USB cable, connect it to the expansion board underneath

This completes installation of this LED Lighting Kit. ENJOY!