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# COLAB ASSEMBLY MANUAL

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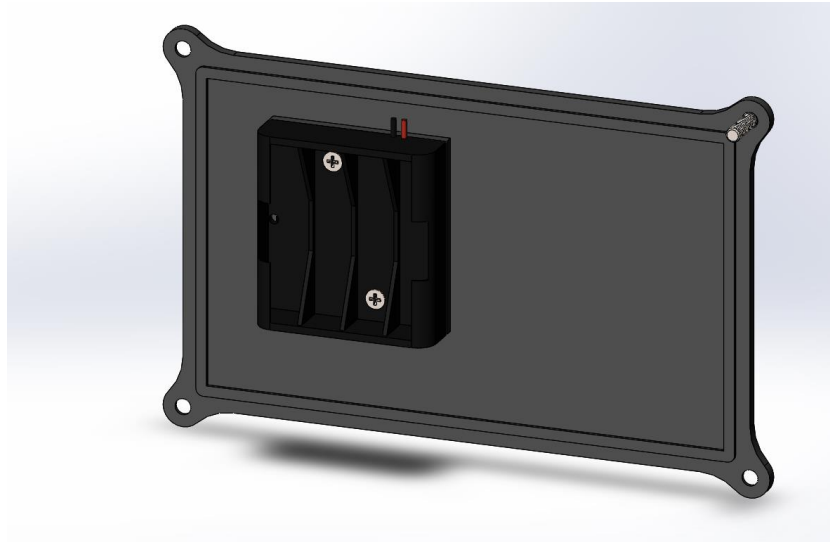


No.	Date of Change	Notes
1.	01-02-2021	Completed the first manual draft

**Note:** This manual is made with the intent for advance user (such as technical students, teachers, and engineers), therefore cable and circuit connection will not be shown in here.

### Parts Description

The figures below show the complete look of the CoLAB housing (the lead and the bottom part) with the components.



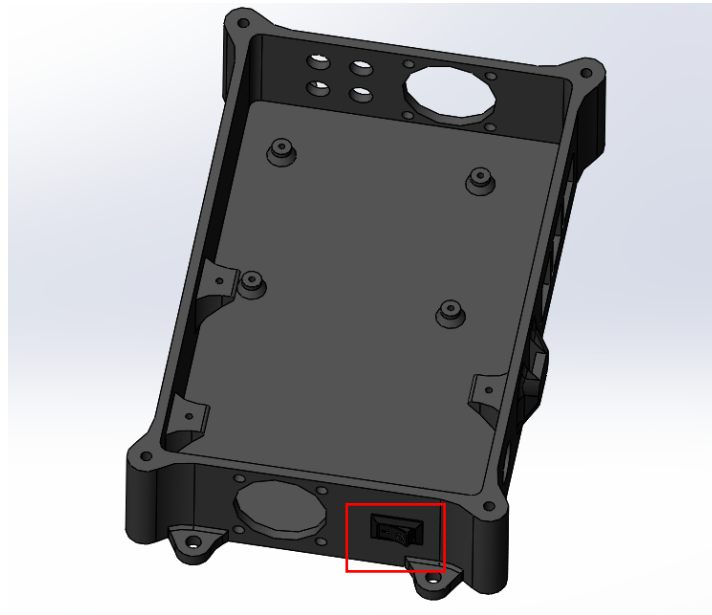
*Figure 1: The top of The CoLAB housing*

In the top part the only component that are placed there is the battery holder, while the rest of the component will be placed in the main part or the bottom part. As shown in the figure below.



*Figure 2: The bottom of the CoLAB housing*

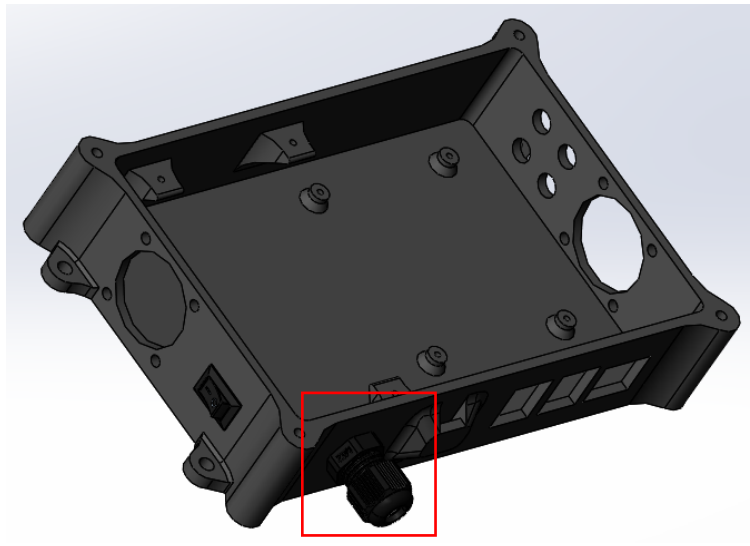
## Step 1 Switch installation



*Figure 3: The first step of the assembly*

The first step of the assembly, the rocker switch will be placed to the switch holder in the left side of the CoLAB housing, the indication for making sure it fits in is to put pressure the rocker switch until a “click” sound is heard.

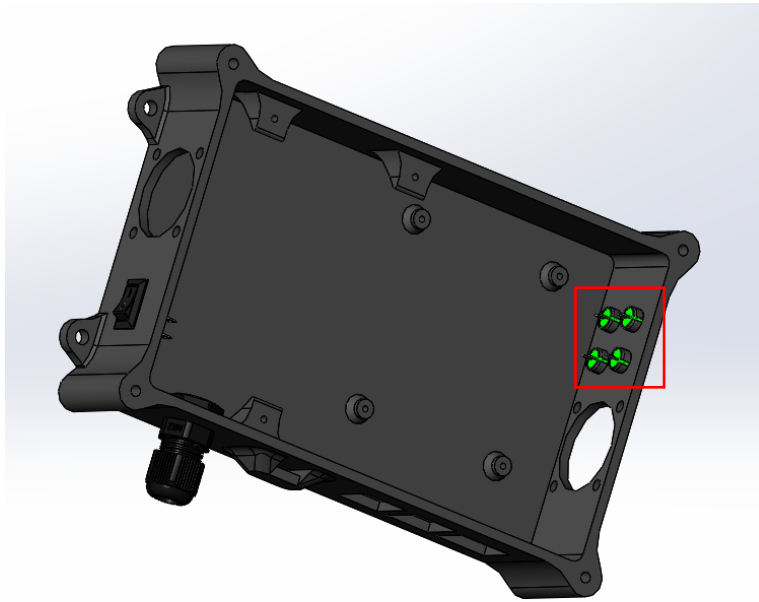
## Step 2 Cable gland installation



*Figure 4: The second step of the assembly*

Second, the Cable gland will be placed in bottom part of the Colab housing as highlighted in the figure above. To do this, the back part of the cable Gland needs to be unscrewed first, then after it has been mounted, screw back the back part to hold the cable firms to the CoLAB housing.

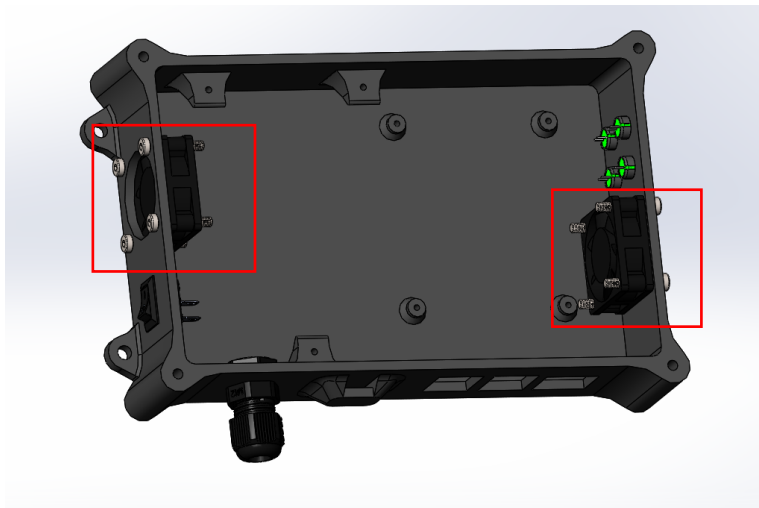
### Step 3 LED installation



*Figure 5: The third step of the assembly*

In this part, because all the LED holders already fit in placed with the housing. The LED can be slide into the holder directly until it produced a “click” sound and the LED could no longer be moved.

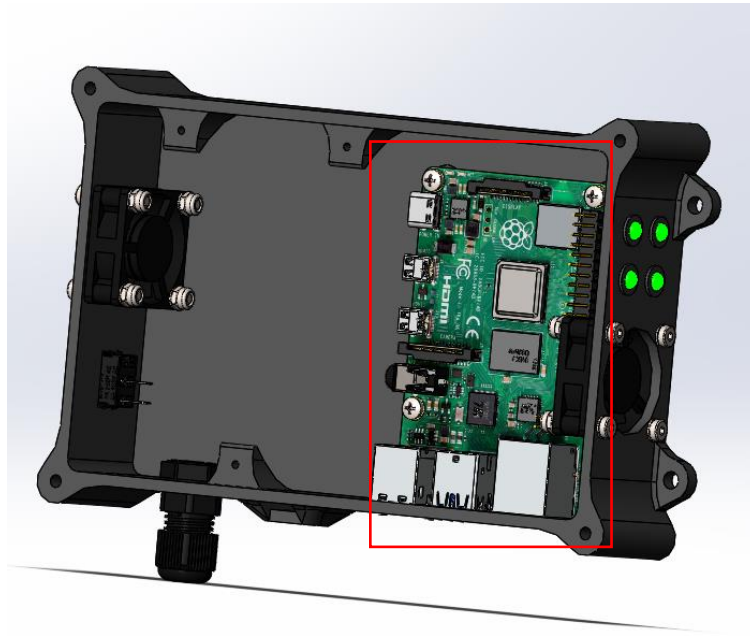
### Step 4 Fan Installation



*Figure 6: The fourth step of the assembly (from left side)*

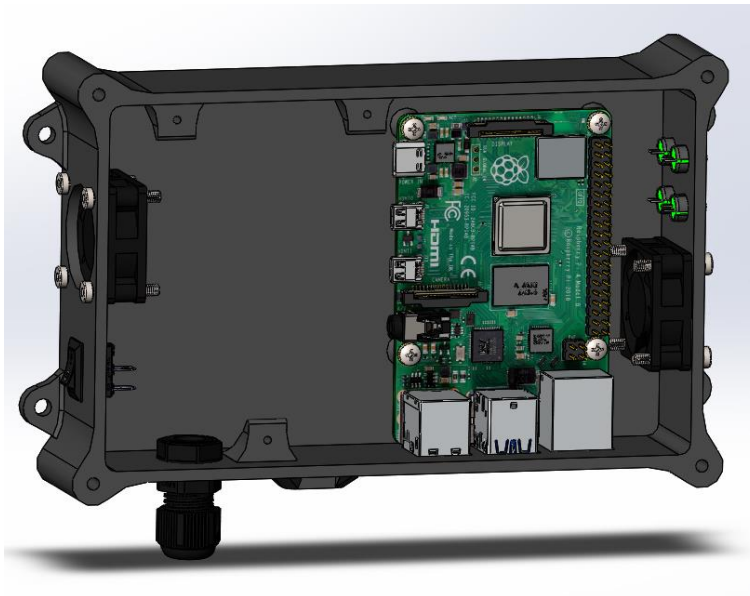
Next is to install the Fan to the housing, this can be done by placing one fan to the hole besides the LED while the other one to the hole beside the switch.

## Step 5 Housing the Raspberry Pi



*Figure 7: The fifth step of the assembly (from right side)*

To house the Raspberry Pi the output ports need to be aligned with the CoLAB housing output socket first. After it fits, it can be screwed to the housing. Note, all necessary cable input such as LED and fan needs to be connected first before the next part to avoid circuit malfunction.



*Figure 8: The Fifth step of the assembly (from left side)*

## Step 6 Housing the PCB

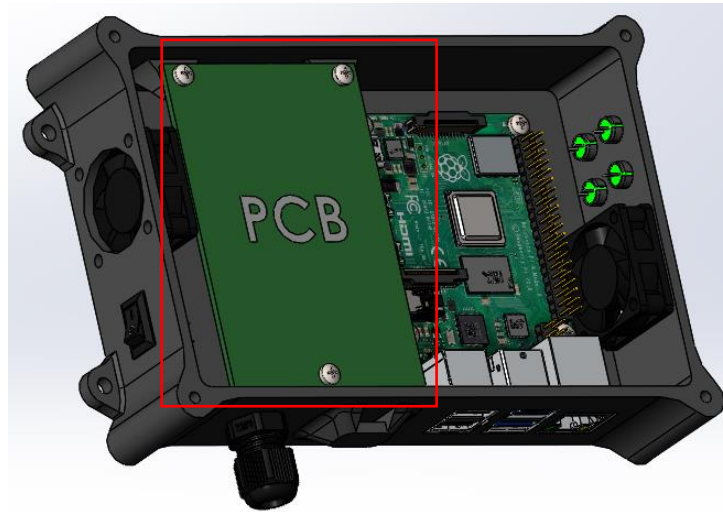


Figure 9: The sixth of the assembly

The last part before closing the CoLAB, the PCB will be installed upside down, the reason for this is to prevent the misfit with the top part of the CoLAB housing. For the placement direction, the top part will have 2 terminal block siding towards the raspberry Pi.

## Step 7 Finishing up



Figure 10: The complete CoLAB housing

Lastly, close the top part shut to the bottom, make sure the battery holder is located above the Raspberry Pi otherwise it won't fit.