

## Lesson 2 The Assembly of Raspberry Pi Expansion Board

This lesson aims to learn the assembly and connection of Raspberry Pi expansion board.

### 1. Preparation

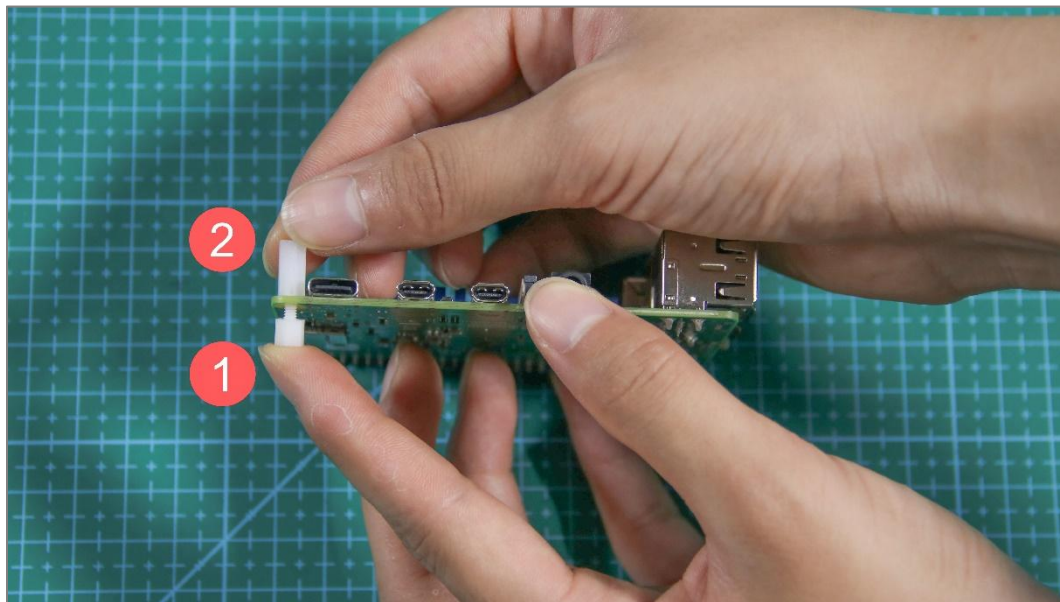
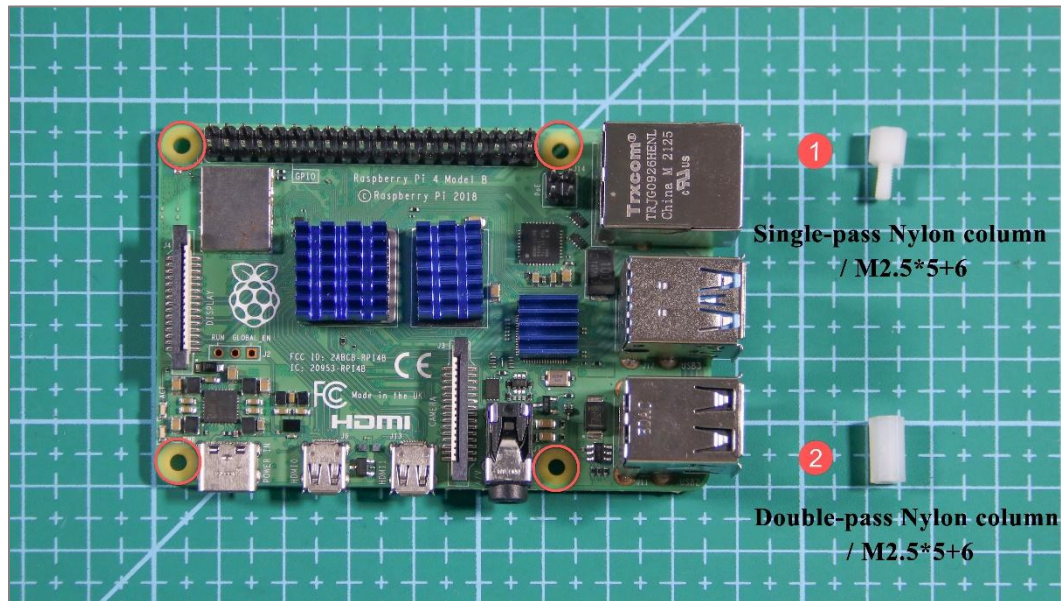
Before assembling Raspberry Pi expansion board, we need to prepare the following accessories.

Name	Number	Name	Number
Raspberry Pi board	1	Raspberry Pi expansion board	1
Double-pass nylon column/M2.5*10	4	Single-pass nylon column/M2.5*5+6	4
Round head machine screw/M2.5*6	6	The paired wires of power supply	1

### 2. Assembly and Connection

After preparing these accessories, let's get started.

1) Assemble nylon columns into the four holes framed in the following picture. Firstly, insert the single-pass nylon column into the hole from the back of Raspberry Pi board and then tighten it with the double-pass nylon column (the side with screw thread).



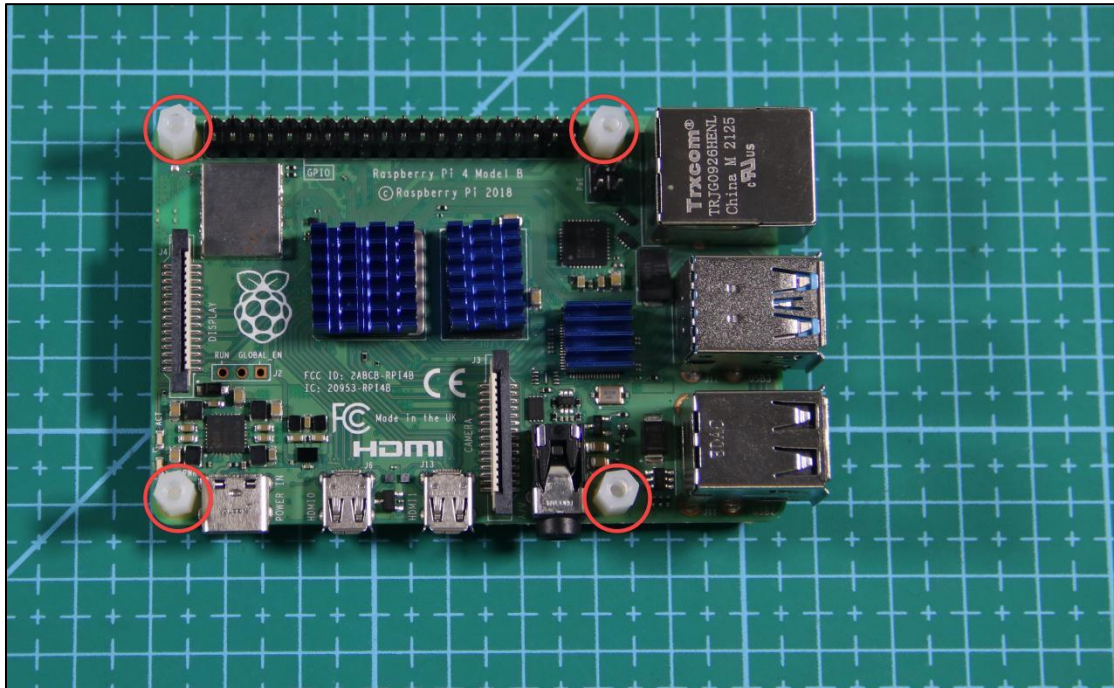
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**Note:** Please pay attention to the position of nylon column. The single-pass nylon column is on the back of board while the double-pass nylon column is on the top of board.

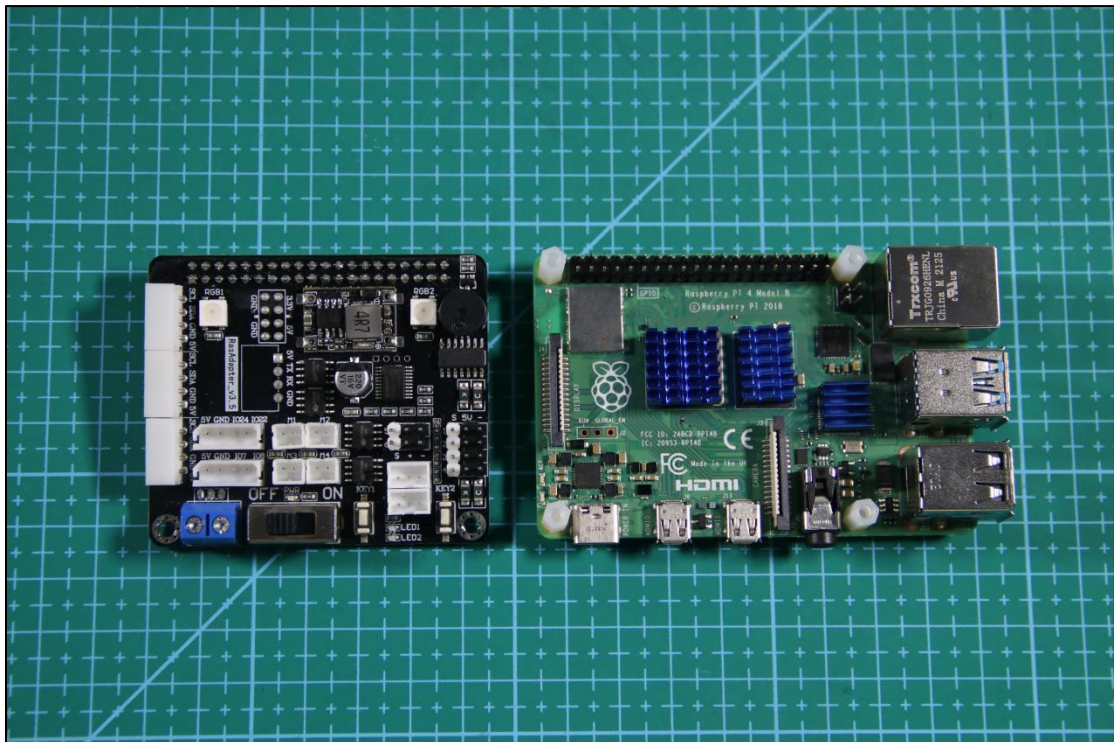
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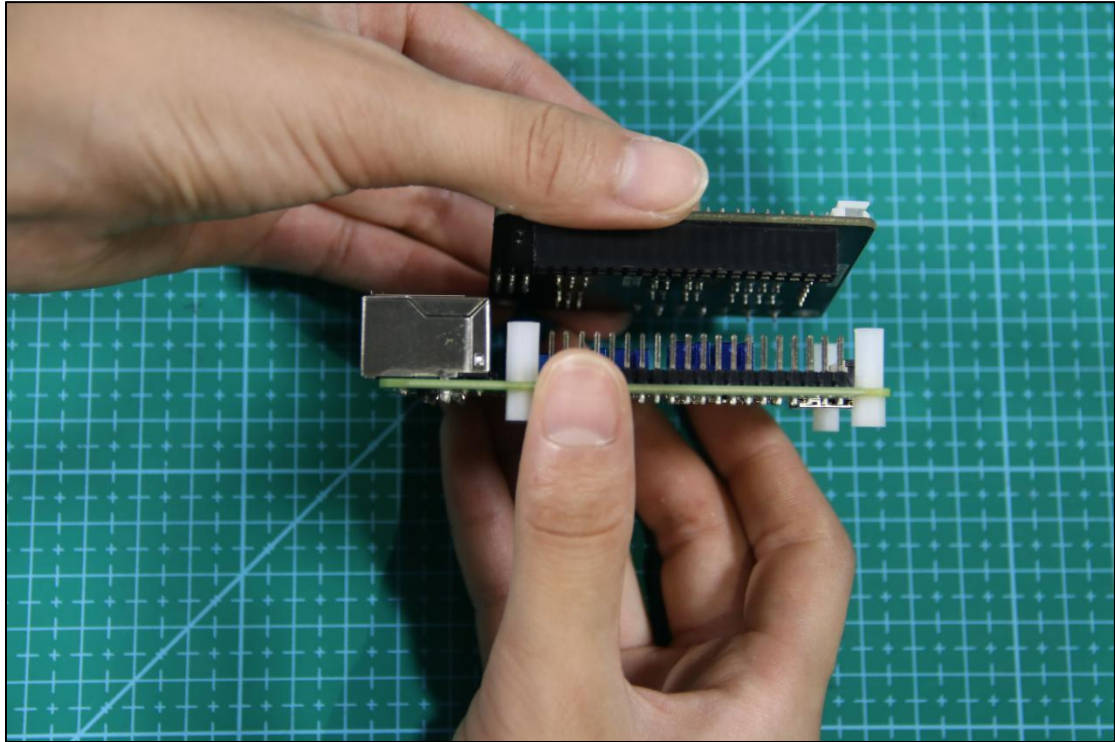


2) After assembling nylon columns, the result is shown as the following figure.

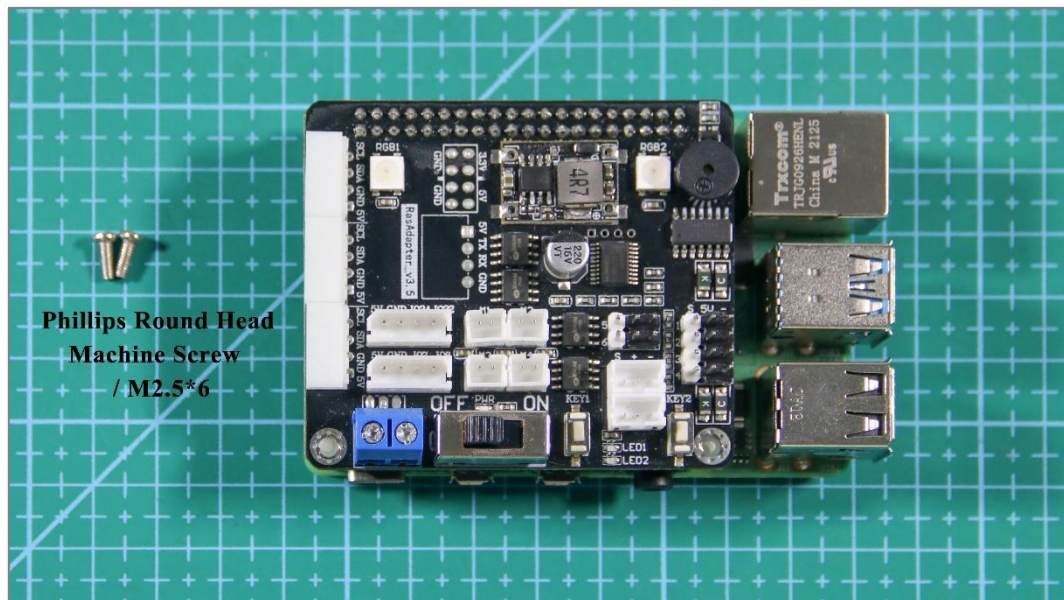


3) Align the female headers on Raspberry Pi expansion board with the pin headers on Raspberry Pi board, and then connect them together.



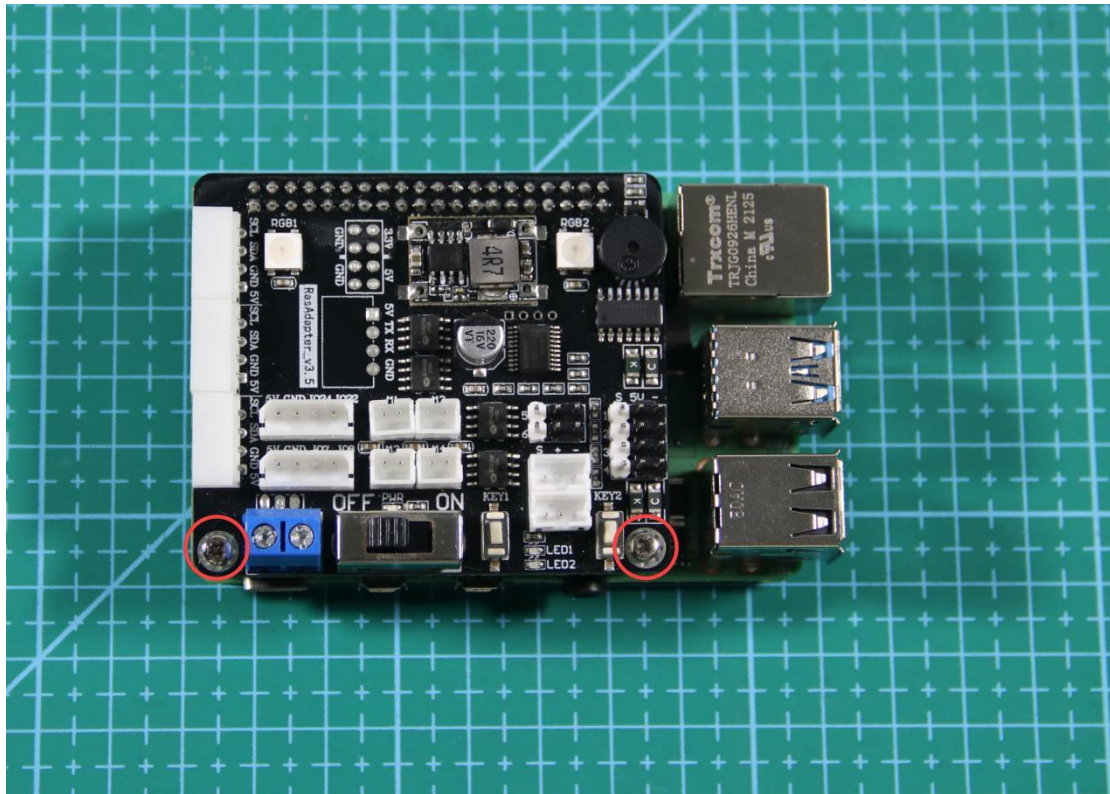


4) After assembling expansion board, tighten two boards with screws.

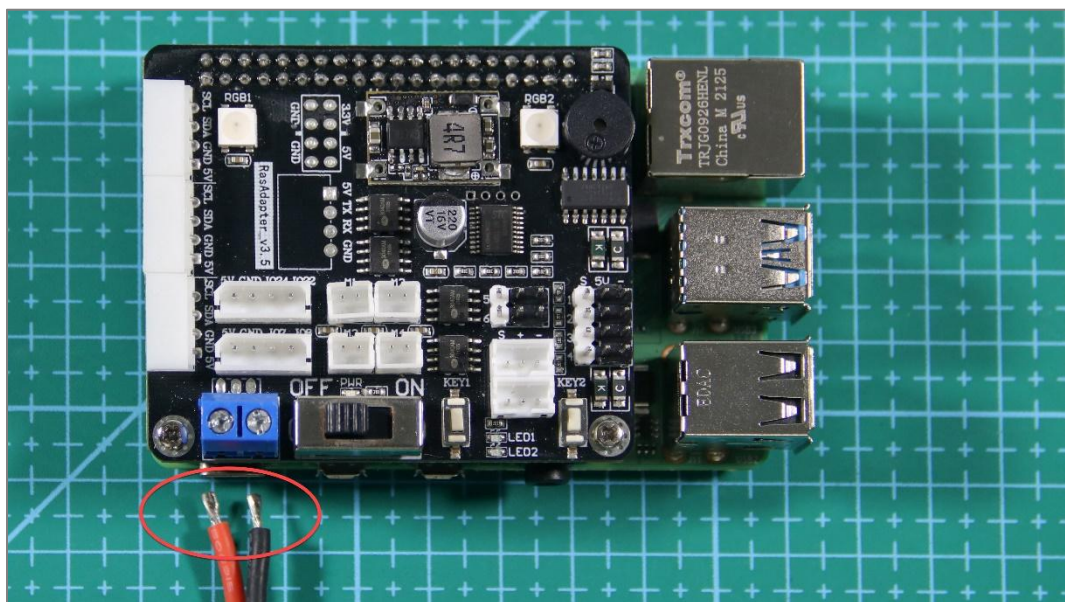


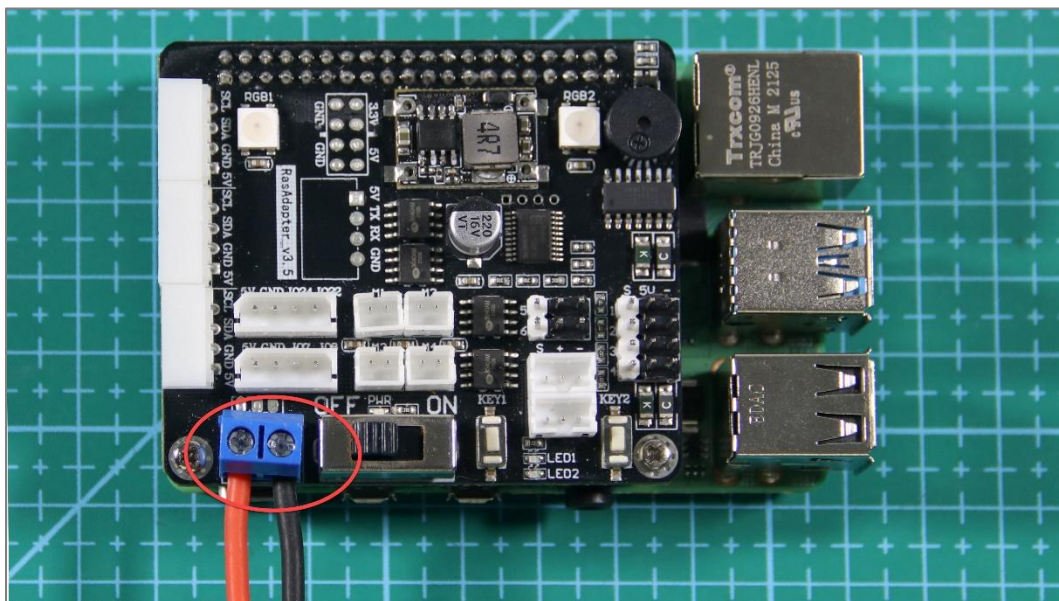
5) The following picture is what it looks like after tightening screws.





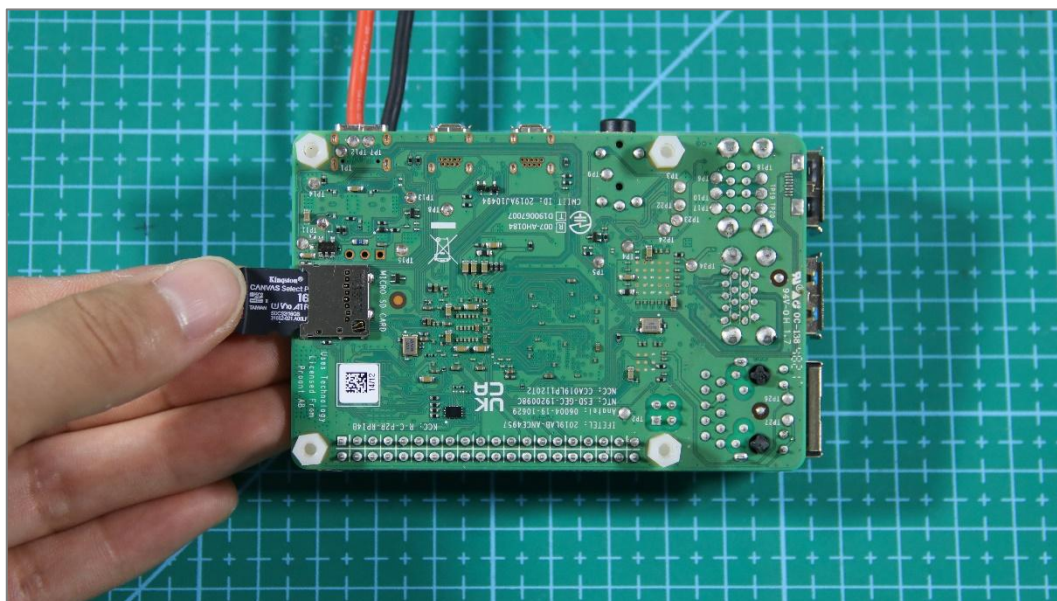
6) Connect the paired wires of power supply. Firstly, loose the screws on positive and negative poles with screwdriver. Then, connect the paired wires to power ports and tighten screws.





Note: please pay attention to the positive and negative poles. Red to red and black to black.

7) Insert SD card.



8) Assembly is completed.



