

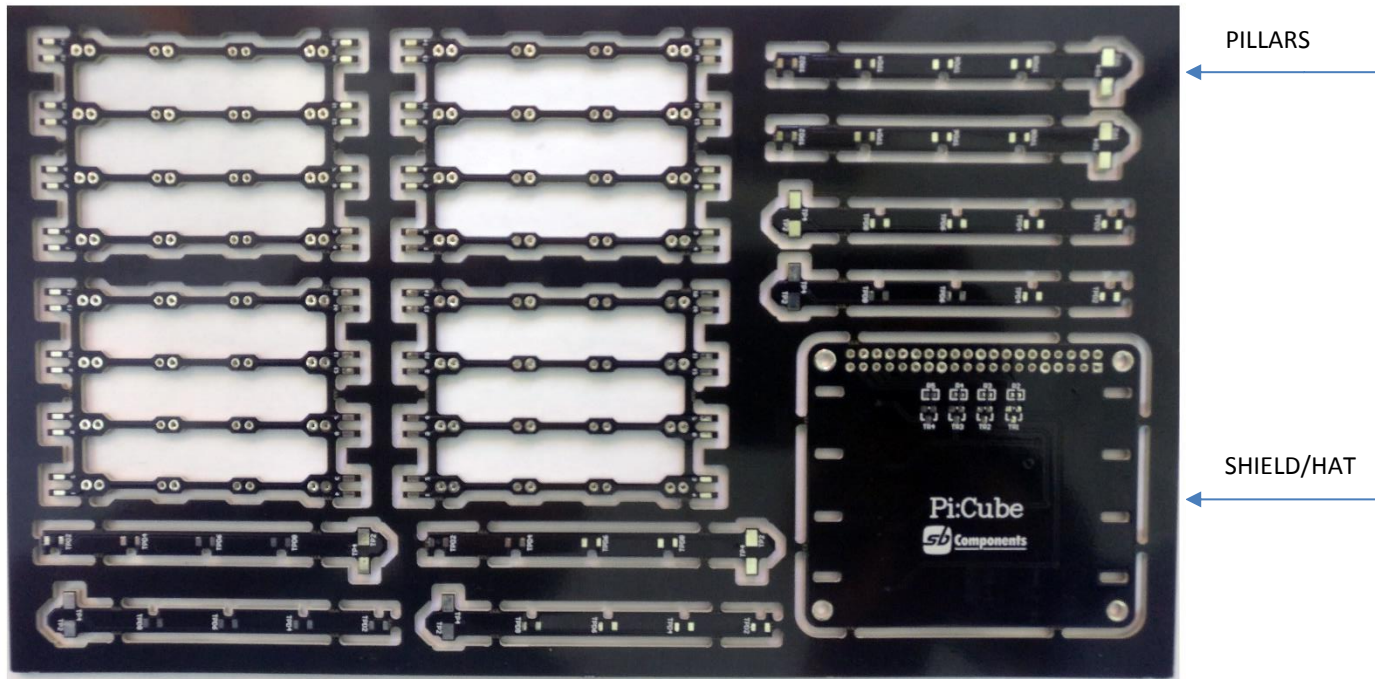
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UNBOXING: PARTS OF THE DIY KIT

The Pi: Cube DIY Kit comes with a total of 12 + 1 + 1 parts. Those are:



4 - LAYERS

8 - PILLARS

1 - SHIELD/HAT for the Raspberry Pi.

1 - 40-pin shield HEADER

We will refer these parts by these names only in the following document.

The DIY kit also has 16 monochromatic LEDs which are either RED, BLUE or GREEN, depending on what you ordered.

STEPS TO SOLDER YOUR OWN CUBE

Let's start the soldering of the Pi: cube with the help of these images. The soldering on the PILLARS and the LAYERS need to be done exactly as shown in the images i.e. 2 on the front and 2 on the back.

1. The shield is to be soldered side up (marked by the solder pads on the shield as shown)

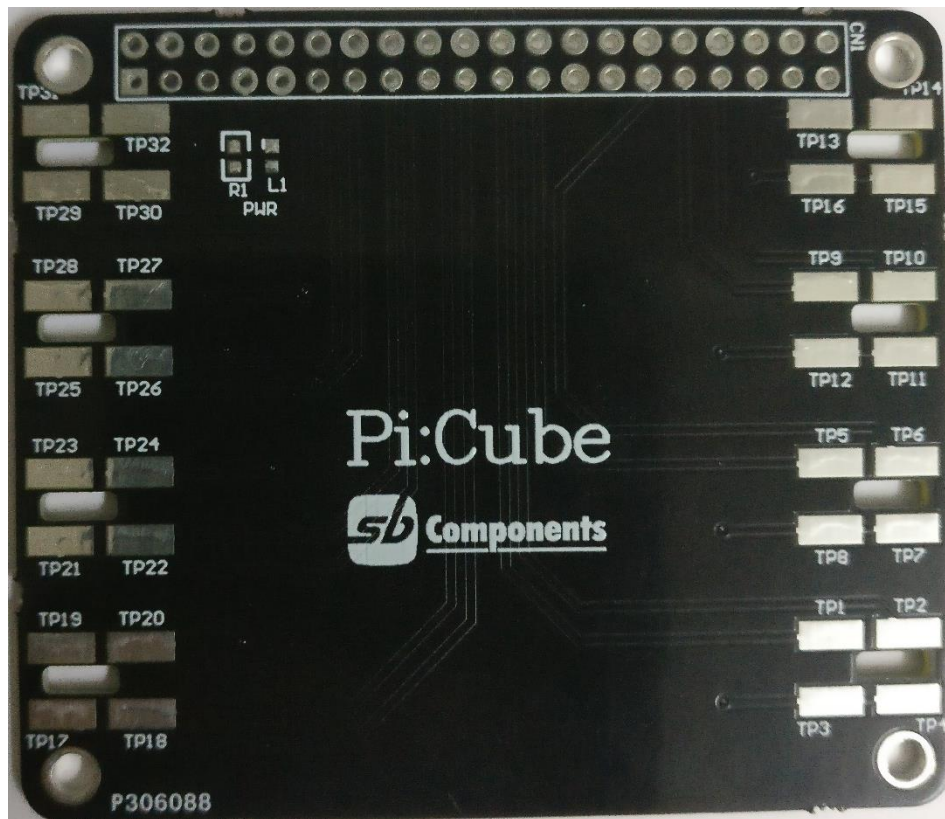


Figure 1- Pi:Cube shield with soldering pads

2. Solder the 40-pin HEADER included in the DIY kit onto the shield with the pins on the topside as shown

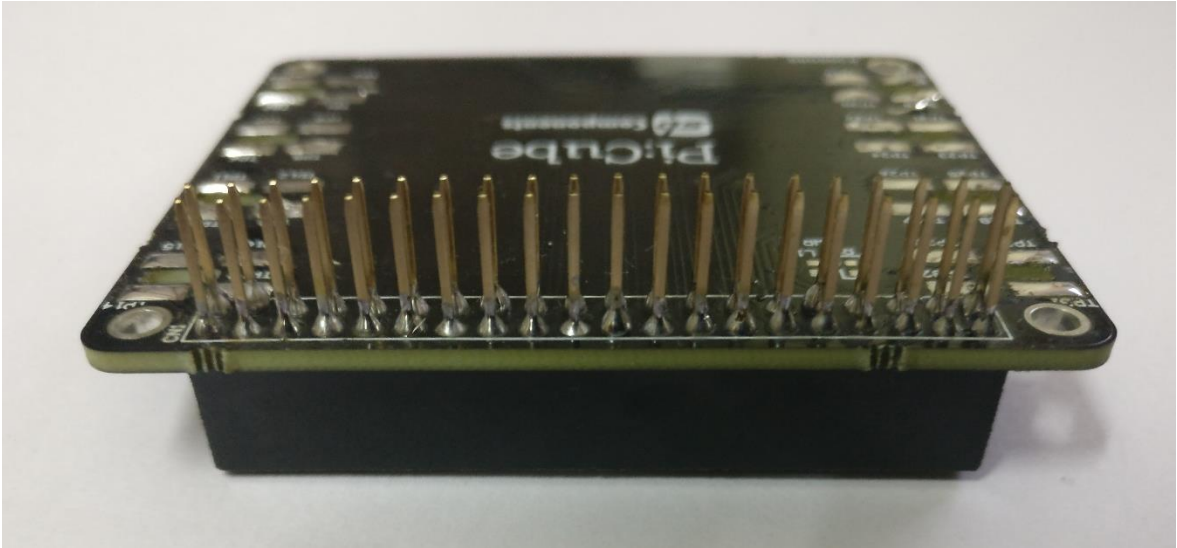


Figure 2: Pi:Cube shield with the 40-pin header

3. The LED slot in the LAYER of the DIY kit comes with a negative (-) sign marked for each LED. The short end of the LED should be soldered there.
 - a. Test the LEDs before soldering them onto the layer using a coin cell or battery

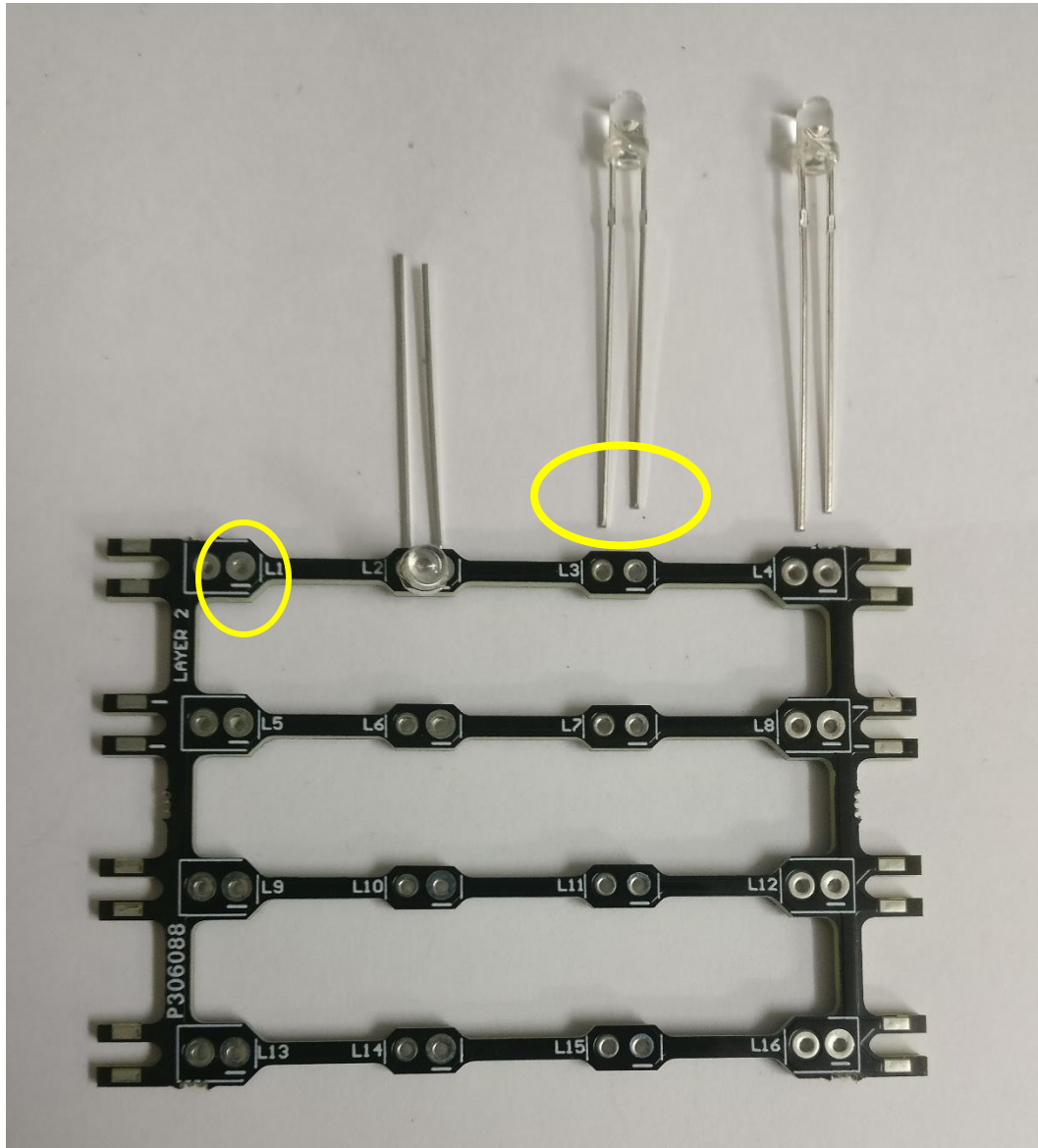


Figure 3: LAYER 2 with short end of the LED as well as negative side shown

4. Solder all the LEDs provided on the DIY kit onto the space provided in the LAYERS as shown
5. Solder the PILLARS on the left side of the shield such that the marking TP9 /TP10 are on the bottom and faces you
 - a. OR on the right side of the shield such that the markings on the PILLAR TP4/ TP2 is on the bottom and faces you



Figure 4: Pillars Marked TP9 on the bottom

6. Then solder the LAYER number 4 (written on the top left of the LAYER) on the bottom slot of the PILLAR (marked by TPD7 on the LEFT PILLAR or TPD8 on the RIGHT PILLAR)
7. Similarly solder the LAYER 3 on the slot above the previous one, marked as TPD5 on the LEFT PILLAR and TPD6 on the RIGHT PILLAR

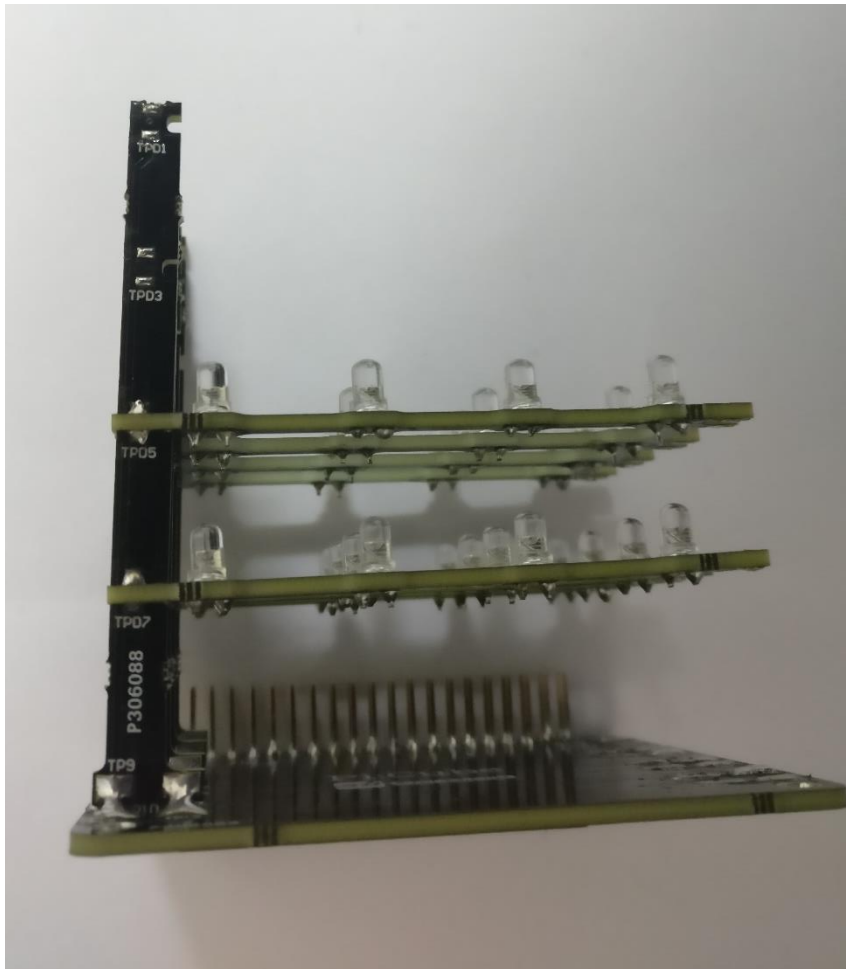


Figure 5: The 2 layers connected to the slots as shown

8. Solder the LAYER 2 on the slot marked as TPD3 on the LEFT PILLAR and TPD4 on the RIGHT pillar

9. Solder LAYER 1 on the top most slot of the pillar, then solder the remaining PILLARS as described in step 2.

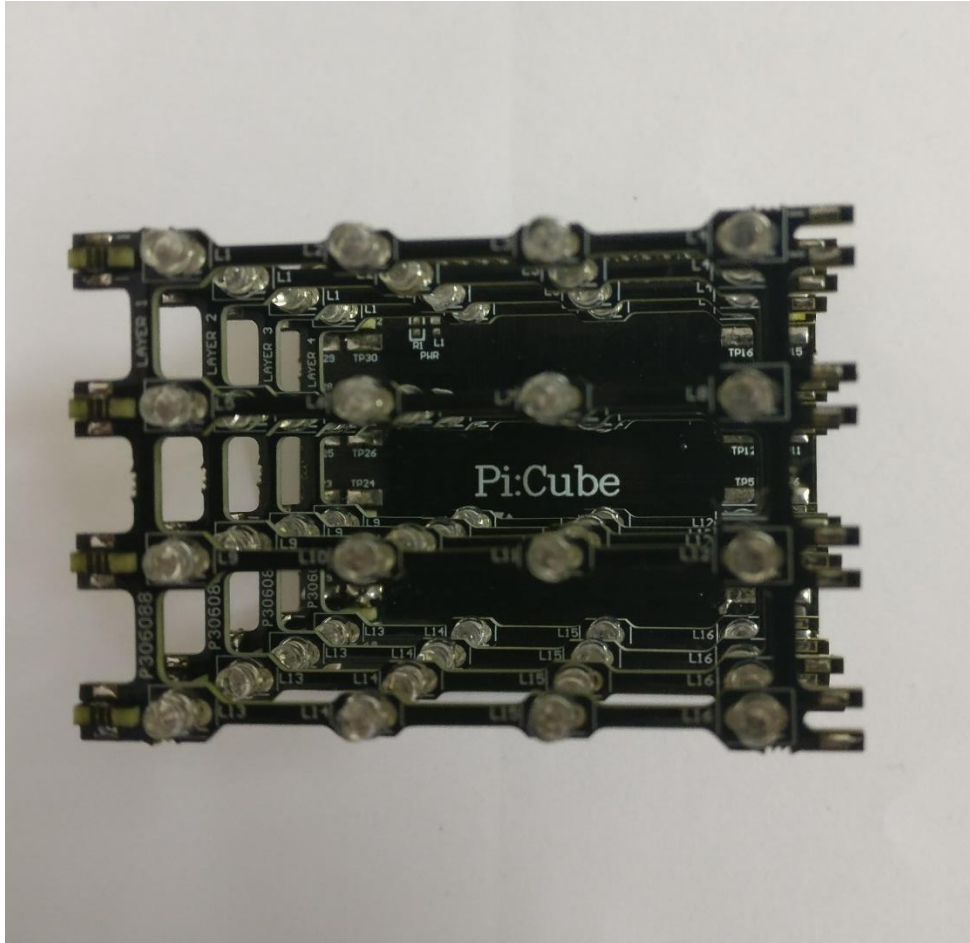


Figure 6: Layers in the order viewed from the top

10. While soldering the LAYERS take note that all the L1 markings should be in the same column for proper functioning of the cube.