## **Proty McProtoplate Instructions:**



Congratulations on your purchase of the Proto McProtoplate Prototyping Board for Raspberry Pi. We enjoyed making it so we hope you enjoy using it.

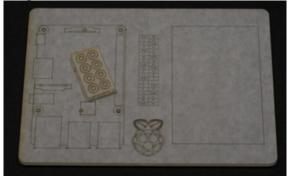
## **Tools required:**

- Philips screwdriver
- Fingernails

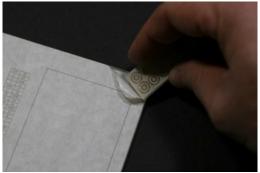
# **Tools optional:**

Hobby knife

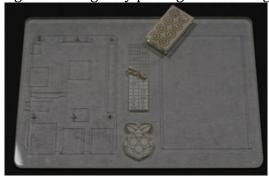
**Step 1: Front Side Weeding** 



The acrylic used to make this product is covered with a protective masking to protect it from scratches and burn-marks. If you like the look of the masking you're welcome to leave it, otherwise you should peel it off (also called "weeding," probably because it's just as much fun as weeding a garden.)

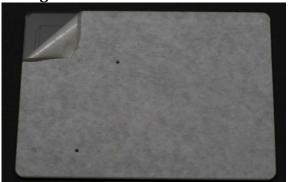


Using your fingernail, a hobby knife, or the small piece of plastic containing the spacers (hereby known as the "spacer holder"), start at a corner and scrape off a section of masking. Peel the masking off with your fingers. Try to make the pieces as large as possible by going slow and gently pulling the masking down.



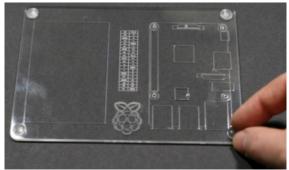
It's easier to scrape the smaller areas using the spacer holder. Using the edge like a bulldozer and pushing through the masking works well (vroom-vroom noises optional.) Keep bulldozing until all the masking is removed.





Turn over the plate and peel the masking from the back. I promise this is at least 1025% easier than the front side. Congratulations if you get it all in one piece.

**Step 3: Apply Feets** 



While your acrylic plate is flipped over, it's a good time to affix the 4 rubber feet. Peel them off the backing and stick them to the corners. Pretty easy, right?

**Step 4: Weeding the Spacers** 



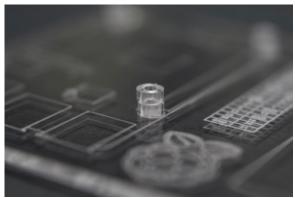
If the spacers haven't self-weeded from all the <u>bulldozing</u> scraping, it's time to weed the masking from them too. It can be a bit of a pain so a hobby knife might come in handy here. If the material in the center of the spacers fall out it's ok, you don't need them.

**Step 5: Popping out the Spacers** 



The spacers can easily be popped out from the material using your finger. Make sure you catch them when you do this and don't lose them because (spoiler alert) you 'll need them for the next step.

**Step 6: Using the Spacers** 



Flipping the plate back to the front and placing it on a level surface, stack 2 spacers on top each other on the appropriate holes for your Raspberry Pi (use the outer holes for a regular 40 pin Pi or the holes closest to the GPIO map for a Pi Zero.) Make sure you have all 8 spacers stacked over the holes. (2 spacers per hole, not one stack of 8 spacers, though I'm sure that would be impressive.)

Fun fact: We chose to use two spacers because it was impossible to get the microSD card out of the Pi with fingers if we used just one.

Step 7: Putting Screws in the Pi



Hold the Pi with one hand and put the screws in each hole with the other.



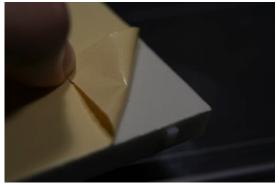
Line the Pi up with the laser cut outline and carefully lower it down on top of the plate, allowing the screws to go into the spacers. You might need to wiggle the screws slightly to make sure they drop all the way in.

### Step 8: Screw it



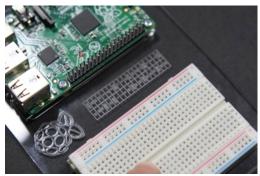
Using your small Philips screwdriver, screw the 4 screws until they are screwed snugly against the Pi. Make sure you don't over-screw the screws, just screw until the screws make contact with the circuit board.

Step 8: Affix Breadboard



Flip the breadboard over and peel the paper backing off the adhesive. This adhesive is very strong so read the next step before you stick it to the board.

**Note:** Breadboard colors may differ. Yours is probably clear because we think they look sweet.



The top of the breadboard has letters on it and we generally like to put these at the top because that's how we roll. Line the breadboard up with the outline (remember to stay in the lines!!) and stick the breadboard to the plate. Apply a little pressure with your fingers to make sure it's stuck.

### Step 9:

There is no step 9 - you're done! We hope you enjoyed these instructions. If you read this far you're probably the only one. You should be very pleased with yourself because we are.

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