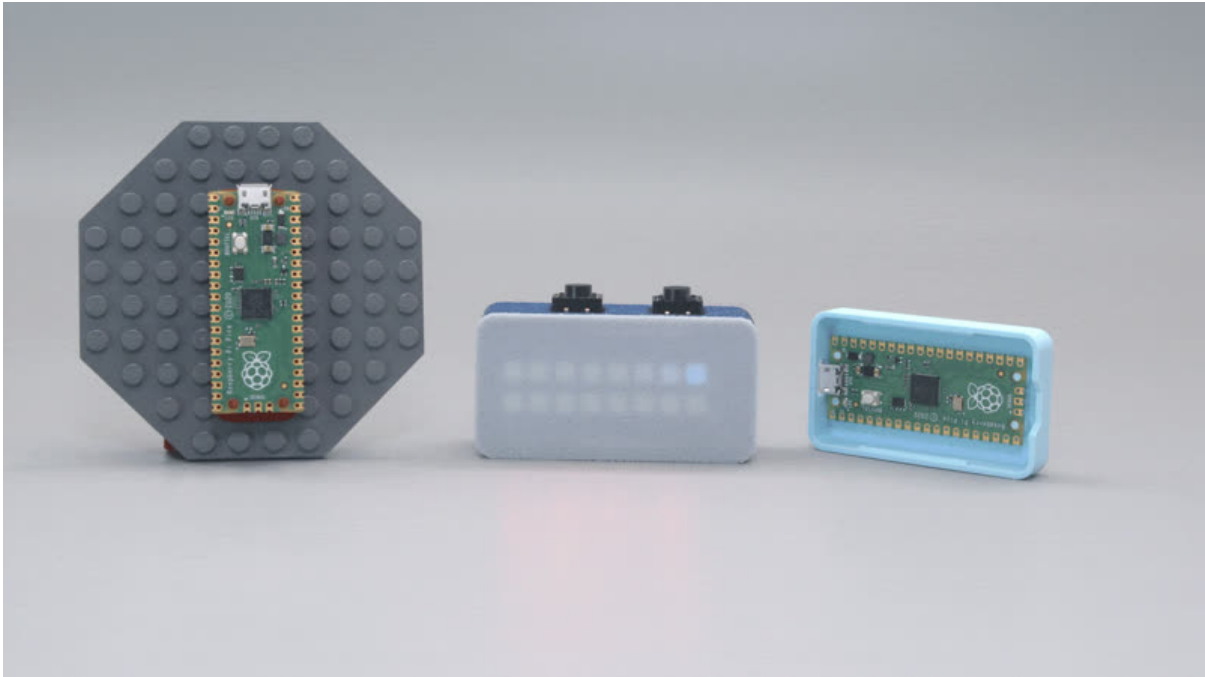




3D Printed Case for Raspberry Pi Pico

Created by Ruiz Brothers



<https://learn.adafruit.com/raspberry-pi-pico-case>

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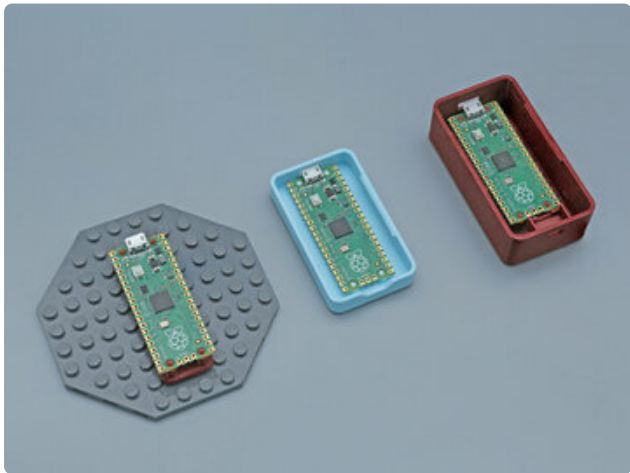
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Overview

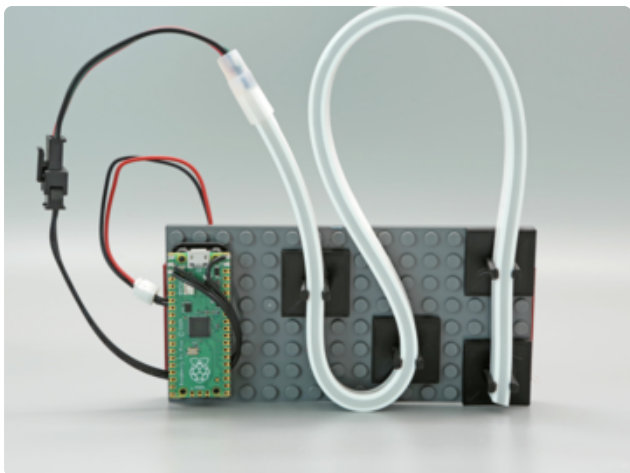


In this project we are 3d printing cases for the new Raspberry Pi Pico!

We designed these enclosures and LEGO compatible plates for making fun 3d printed projects.

The Raspberry Pi Pico features the new RP2040 chip with CircuitPython support.

It's got tons of GPIO pins, so it's great for projects that need lots of inputs at a very low cost.

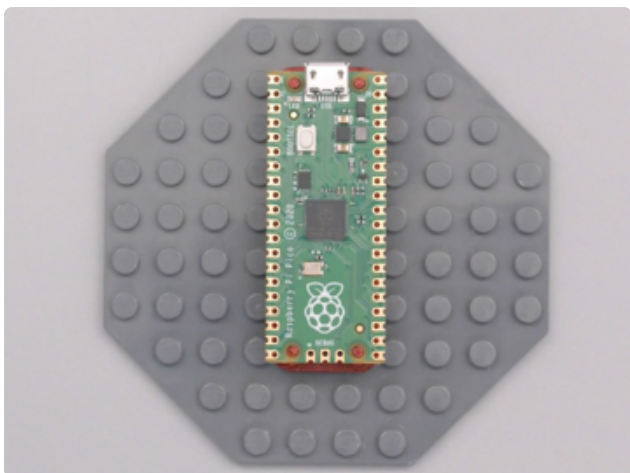


Lego Plate

Our LEGO compatible mount features studs that fit standard bricks or base plates.

It features built in standoffs so you can snap fit the Raspbbery Pi Pico right on top.

The standoffs feature M2 sized pegs that press fit into the mounting holes.





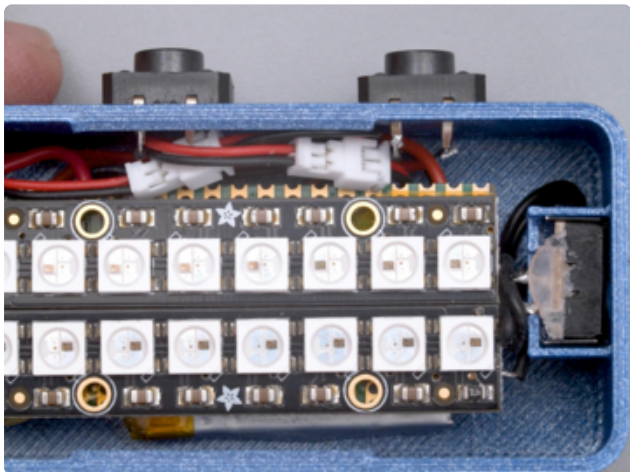
Pico Enclosure

Buttons can press fit into the holes that are on the side of the case.

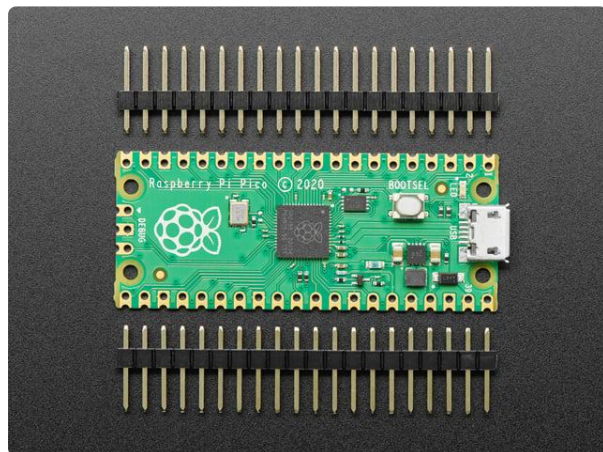
We used molex pico blade connectors to make it easier to plug in the buttons to the Raspberry Pi Pico.

To make this a portable project, we added a small lipo battery and a slide switch.

The pico blade connectors are small enough to wedge in between the sides of the case.



Parts



[Raspberry Pi Pico RP2040 with Loose Unsoldered Headers](https://www.adafruit.com/product/4883)

The Raspberry Pi foundation changed single-board computing when they released the Raspberry Pi computer, now they're...

<https://www.adafruit.com/product/4883>



Fully Reversible Pink/Purple USB A to micro B Cable - 1m long

This cable is not only super-fashionable, with a woven pink and purple Blinka-like pattern, it's also fully reversible! That's right, you will save seconds a day by...

<https://www.adafruit.com/product/4111>



JST-PH Battery Extension Cable - 500mm

By popular demand, we now have a handy extension cord for all of our JST PH-terminated battery packs (such as our Lilon/LiPoly and 3xAAA holders). One end has a JST-PH compatible...

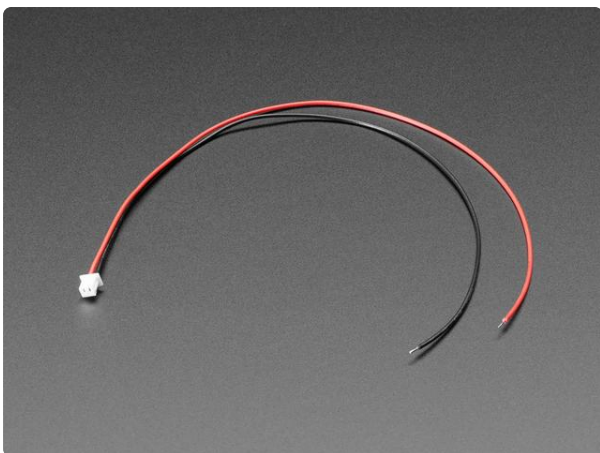
<https://www.adafruit.com/product/1131>



Tactile Switch Buttons (12mm square, 6mm tall) x 10 pack

Medium-sized clicky momentary switches are standard input "buttons" on electronic projects. These work best in a PCB but

<https://www.adafruit.com/product/1119>

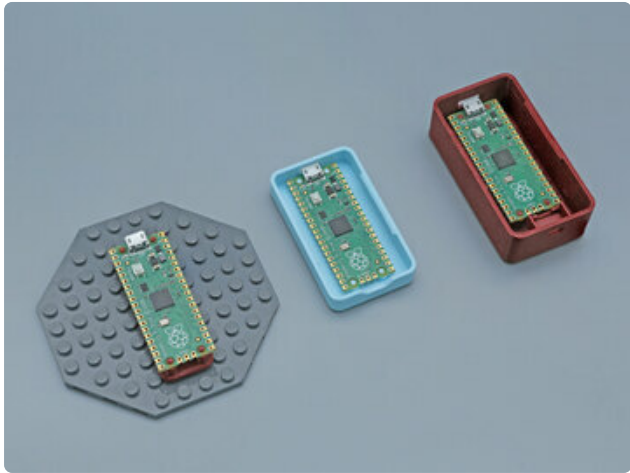


Molex PicoBlade 2-pin Cable - 200mm

When 0.1" is too big, and JST PH's too chunky, the ultra-slim "PicoBlade" is a reliable alternative. These are only 1.25mm pitch, but have a nice clicky...

<https://www.adafruit.com/product/3922>

3D Printing



Parts List

STL files for 3D printing are oriented to print "as-is" on FDM style machines. Parts are designed to 3D print without any support material. Original design source may be downloaded using the links below.

Pico Lego Plate

Pico-Lego-Base-split

Pico Case

pico-case-top

pico-case-btm

Pico Case small

pico-case-small

Raspberry Pi Pico Lego Plate

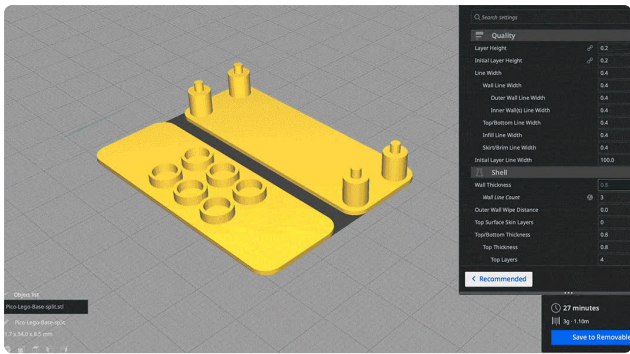
<https://adafru.it/1a7v>

Raspberry Pi Pico Case

<https://adafru.it/19Fd>

Pico Cases STLs

<https://adafru.it/QuD>

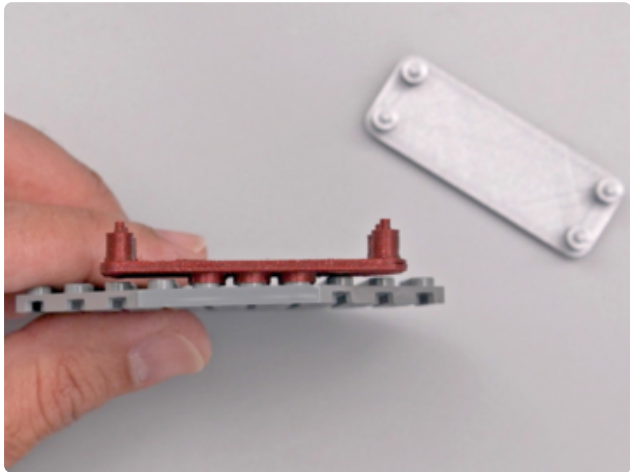


Slicing Parts

No supports are required. Slice with setting for PLA material.

The parts were sliced using CURA using the slice settings below.

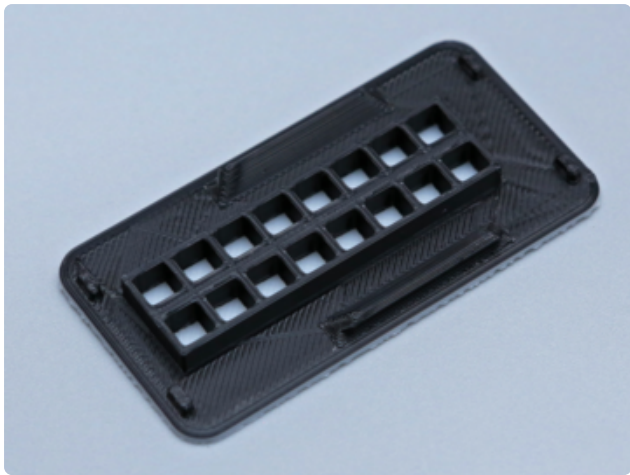
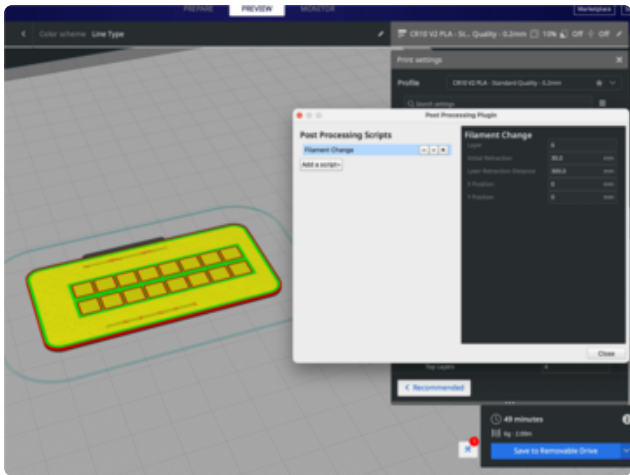
PLA filament 220c extruder
0.2 layer height
10% gyroid infill
60mm/s print speed
60c heated bed



Glue Lego Plate

The Lego Plate parts are joined together with super glue.

Be extremely cautious using strong glues, read and follow directions and wear eye protection.



Filament Change

The grid effects are created by swapping the filament colors from white to black. The script is located under:

Extensions > Post Processing > Modify G-Code

then under:

Add script, add the Filament Change Script

The color change should happen on layer 6