



Magnetic Raspberry Pi Camera Mount



willy

[VIEW IN BROWSER](#)

updated 7. 5. 2024 | published 7. 5. 2024

Summary

A magnetic Raspberry Pi mount that is designed to attach to ferromagnetic material under the build plate.

[3D Printers](#) > [Accessories](#)

Tags: [raspberrypi](#) [raspberrypicamera](#) [cr5pro](#) [cr5proh](#) [cr5](#)

I designed this specifically for my Creality CR5 printer. However, it probably can be used for many other printers and applications. I wanted a mount that doesn't interfere with the bed screws and can easily be moved. It seems like having the camera mounted either on the x-axis gantry or the bed is optimal since the camera then automatically tracks the print independent of z height and remains in a fixed position. For the CR5 the x-axis gantry does not move but the bed does and it has a ferromagnetic build plate frame; making it super convenient to attach a magnetic camera mount.

I had a ton of 6mm diameter x 2mm thick magnets from some gridfinity stuff I made so I designed the mount to use those same magnets. To make it modular and therefore as adaptable as possible, the mount is in three pieces that connect together with 2 M3 screws and 2, 4mm M3 heat inserts.

This is how I assembled it:

1. Glue the magnets into the base. I like to have the magnets flush with the top edge of the base so that the magnet surface will be in contact with the plate. Then I put glue into the little hole on the bottom side to secure them. My intuition is that all of the magnets should be oriented in the same direction.
2. Insert one M3 heat insert into one side of the horizontal arm.
3. Insert one M3 insert into the bottom hole of the vertical arm.
4. A 6mm M3 screw goes through the top of the base and screws into the M3 insert in the horizontal arm. This secures the base to the horizontal arm.
5. A 12mm M3 screw goes through the other hole in the horizontal arm and into the M3 insert in the vertical arm. This secures the base and horizontal arm to the vertical arm.
6. The camera housing gets attached to its mount. I used a 20mm M3 screw and a M3 nut. I probably don't need the nut but I used it anyway.
7. The camera mount goes onto the tapered end of the vertical arm.

I stuck the camera on the rear left corner of the build plate frame since the USB port is on that side of the printer. Even though I want to put it on the outside of the case I think the camera cable should go on the inside of the case so that it can move freely.

The hardware:

1. M3 inserts that I like: <https://www.amazon.com/dp/B08T7M2H4S>
2. Pi Camera: <https://www.amazon.com/gp/product/B07L82XBNM>
3. 1m Long Cable: <https://www.amazon.com/gp/product/B07J57LQQS>
4. Magnets: <https://www.amazon.com/dp/B08WLT3PHD?th=1>

This remix is based on



Magnetic Pi Camera Stand

by Elothan



Pi camera mount for V-slot rail or E3 Bed handle w/Pi cam mount

by RossIRL

Model files



pi-housing-post.stl



pi-camera-mount-base.stl



pi-camera-mount-horizontal-arm.stl



pi-camera-mount-vertical-arm.stl

License ©

This work is licensed under a
[Creative Commons \(4.0 International License\)](#)



Attribution

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✓ | Commercial Use
- ✓ | Free Cultural Works
- ✓ | Meets Open Definition