Camera Mount- Prusa MK3 & MK4

mhparsons

VIEW IN BROWSER

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Summary

Pi Camera mount for a Prusa Technologies MK3s 3D Printer

3D Printers > Prusa Parts & Upgrades

Tags: prusa camera mount cameramount prusai3mk3 raspberrypi raspberrypicamera picamera prusamk4

2/17/24 UPDATE: I uploaded a second knob that has a longer screw thread. Use the longer one for attaching the Pi Mount to the Pivot and the shorter one to attach the Pivot to the Bracket.

11/1/23 UPDATE: I modified the bracket to be compatible with Prusa MK4 printer. So the same bracket will work for both printer models. Everything else functions the same.

This is a mount for a Raspberry PI Camera on a Prusa Technologies MK3s 3D Printer. The mount attaches to the X-Axis Motor with a single M3x10 screw (use one from the Prusa spares package). The design is for a Raspberry Pi v2 Video Camera.

The bracket is fixed length, but the mount provides 2-axis adjustment so you can obtain the exact view you want. Print two of the Knobs. There is a slot on the bottom of the bracket that you can slide the ribbon cable through to secure it.

This is a remix of my original design. I made the following improvements:

1. Thinned up the bracket and pivot so the parts would print faster.
2. Eliminated one of the vertical ribs.
3. Added a hex cutout pattern to the remaining vertical rib (so it would look more “Prusa-ish!”)
4. Lengthened the pivot screws (many people commented that they weren't quite long enough.
5. Added ribbon cable channel.
6. Utilized the Pi Camera Mount from Golden 4 (that was a remix from Sneaks). The Pi Camera is enclosed in a snap-shut case. No screws are required.
    1. https://www.printables.com/model/376326/edit

I also designed a ribbon cable guide that attaches to the x-axis motor cable to keep the ribbon cable for being pulled out. I used three on my printer. You can get the file here:

https://www.printables.com/model/376364-ribbon-cable-guide

Finally, when it was first assembled the camera was not in focus. The factory sets the focal length to infinity. There are instructions on the internet on how to focus it. Essentially, I held the camera housing on the board carefully with needle-nose pliers and then rotated the lens counter-clockwise with a pin until it was in focus. There's a little soft cement that holds the lens secure, so you will need to push a bit past where it is in focus and let the cement spring back into it's final position.

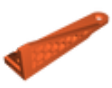
This remix is based on

Camera Mount-Prusa MK3s

by mhparsons

Model files

bracket-camera-mount-2-prusa.stl



pivot-camera-mount-2-prusa.stl

pi-mount-camera-mount-2-prusa.stl

pi-cover-camera-mount-prusa.stl

knob-long-camera-mount-2-prusa.stl

knob-short-camera-mount-2-prusa.stl

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