



ESP32 Camera Bot



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Summary

ESP32 Camera Bot Motivation I searched for a nice vehicle to test the ESP32 camera bot source code. The code is based...

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ESP32 Camera Bot Motivation

I searched for a nice vehicle to test the ESP32 camera bot source code. The code is based on the nice project by Mudassar Tamboli and bitluni. See here for details: [Websocket Video Camera](#). I had to modify the code a bit to add an I2C display which did not work with the I2C bitbanging code of Mudassar Tamboli.

I liked the [Drogerdy 2.0](#) because it uses the standard geared motors which I had lying around. On the other hand, the tracks of the [MR-4](#) were using filament as connecting element instead of something that needed printing. This implied to adapt the cogwheels. Then, I wanted a housing for my camera and a holder for a display to show the IP address of the microcontroller. By Using a DRV8833 motor driver I could live with a standard power bank for a supply. I thought it would be a nice idea to use a power supply with built-in solar cells for a green touch...

Print Settings

Printer Brand:

Prusa

Printer:

i3 MK3

Supports:

Yes

Resolution:

OPTIMAL (0.15mm)

Infill:

As given in the original model

Filament: Prusa PLA Prusa Orange, black, silver

Notes:

Supports from build plate for the camera front and display back. I needed 30 Track elements per side.

How I Designed This

Changes To The Original Model

I did not like the tracks because of the need to print the joining pins. Since I liked the tracks of the MR-4 more, I used them, but had to modify the cogwheels to fit.

Further, I created a front for the camera and a back for the display to fit into the body. Additionally, I made a carrier for the power bank and the circuit board.

For designing and modifying the parts I used FreeCAD.

This model is based on

- Drogerdy 2.0: <https://www.thingiverse.com/thing:700835>
- MR-4: <https://www.thingiverse.com/thing:1906831>

Category: R/C Vehicles

Model files



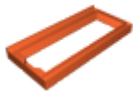
circuitboardholder10.stl



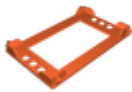
smallcogmod.stl



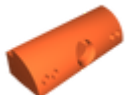
circuitboardddistance10.stl



displaytop10.stl



toplidpowerbank10.stl



camerafront11.stl



toplidlockwheel12.stl



displayback10.stl



maincogmod.stl

Other files



sources.txt

[Find source .stl files on Thingiverse.com](#)

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