

Printables logo

Handheld Emulator

3D MODEL ONLY [Armored Carbon Armored Carbon](#)

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Summary

This is my handheld retro gaming system. It runs off of a raspberry pi 4 with an msata through usb, and a teensy 3.2....

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This is my handheld retro gaming system. It runs off of a raspberry pi 4 with an msata through usb, and a teensy 3.2. The screen is 7 inches. The OS is currently Ubuntu.

This was mostly a learning project for me and isn't designed with standardized parts in mind. I also plan on adding some air vents to the back at some point.

To fully power the screen and msata drive you will need wires going directly from the 5v buck converter to the screen power tabs, the pi can't handle the current for both.

The 18650 cells that power it are held in my 3s2p case that I also designed and posted. this is just double sided taped inside the back lower part of the case.

parts include

- Raspberry Pi 4

-Teensy 3.2

-EVICIV 7 Inch Portable USB Monitor Raspberry Pi Touch Screen IPS Display Computer Monitor 1024X600 16:9

-Various 6x6x5mm tactile switches.

-Joysticks from a broken off-brand controller

- D-pad and ABXY- pads also from various off-brand controllers
- 6 18650 cells (from an old laptop, it runs for ~4 hours however the cells very old/mostly dead.)
- 120 Gig mSATA drive (from an old laptop)
- mSATA to USB 3.1 Gen2 10GBPS SSD Enclosure Adapter Case with USB Type C Interface
- Smraza 100pcs Double Sided PCB Board Kit, Prototype Boards
- AC 6A/250V 10A/125V SPST 2 Pins 2 Position On/Off Car Boat Round Black Rocker Switch Toggle
- USB Buck Converter, DROK 4pcs DC-DC Step Down Module 6-32V 12V 24V to 5V QC 3.0
- GeeekPi Raspberry Pi 4 Fan, Raspberry Pi Low-Profile CPU Cooler with RGB Cooling Fan
- MCIGICM Voltage Tester, 2.5V-30V Mini Digital DC Voltmeter with 0.28 inch LED Display
- Comidox 3S 12V 10A 18650 Lithium Battery Protection Board BMS Li-ion Charger Protection Module
- TalentCell AC/DC 12.6V/2A Lithium Battery Charger for 3S 12V Rechargeable Li-ion Battery Pack
- DC Power Pigtail Cable Wire, 12V 5A Male & Female Connectors for CCTV Security Camera and Lighting Power Adapter

Lots of wires, and 2mm and 3mm screws and nuts.

Print Settings

Rafts:

No

Supports:

Yes

Resolution:

as fine as possible

Infill:

doesn't matter

Filament: PolyMaker PLA various

Notes:

I printed the frame at .07mm layer heights and the buttons at .05mm. The frame does need support in a couple places so use enforcers. The buttons should fit just fine but make sure to compensate for elephants foot. Sand the buttons and holes as needed, they should slide smoothly.

Category: Computer

Model files

thumb_stick_plate.stl

button_trigger.stl

button_bumper.stl

bottom_left.stl

teensey_shelf.stl

button_screen.stl

top_right.stl

button_abxy.stl

top_left.stl

bottom_front_fanfix.stl

button_large.stl

bottom_rear.stl

bottom_right.stl

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

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