

Mochilão: Electronics Backpack for Duender

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VIEW IN BROWSER

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Summary

Modular, space-saving Electronics Backpack for the Duender 3D printer by Sergei Irbis. Fits dual PSUs, BTT Octopus & Pi.

3D Printers > Other Printer Parts & Upgrades

Tags: upgrade mod electronics electronicsenclosure duender

Overview

This Electronics Backpack was designed to provide a neat, fully-enclosed, and modular electronics compartment for the **Duender** 3D printer frame.

It fits entirely within the natural shadow/projection of the A/B motor mounts extending behind the machine, so you don't lose any additional footprint or workspace. It has been tested on my duender with great results!

Key Features

- **High Capacity:** Accommodates up to a BigTreeTech Octopus-sized motherboard, Raspberry Pi, two PSUs (24V + 48V), and an SSR (or whatever you want).
- **Adjustable DIN Rails:** Movable rail slots make it super easy to reconfigure for different board layouts and custom components.
- **Cable Management:** Built-in slots on the side panels allow you to run zip-ties cleanly for tidy cable management.
- **Laminar Airflow Cooling:** Bottom-mounted fans push air upwards in a clean vertical laminar flow through the top vents. Bonus: It provides marginal cooling to the A/B motors above (mostly a moral boost, to be honest).
- **Magnetic Panels:** Quick access doors/covers held by neodymium magnets (maybe too many of them).

Hardware Required (BOM)

Quantity	Item	Notes
3x	DIN Rails	288mm length
2x	Heat Set Inserts	M5 x 6 x 7.5 mm
72x	Neodymium Magnets	20 x 5 x 3 mm (AliExpress Link) (Note: 36x should be enough if you want to save some bucks)
12x	M5x8 Screws	Cap head
12x	M5 Washers	(Optional)
12x	M5 T-Nuts	
28x	M4x10 Screws	Cap head
22x	M4 T-Nuts	

6x	M4 Nuts	
6x	M4 Washers	(Optional)
1x	Voron Cable Gland	AliExpress Link (Trim the hex nut with an Exacto knife to fit the slot)
2–6x	4010 or 4020 Fans	Sunon Maglev series recommended
1x	358x370mm black plexiglass	For the inside
1x	370x400mm (or (or 2x 185x400mm) transparent plexiglass	For the back door

Printed Parts List

Part Name	**Quantity**
Left Top	1x
Right Top	1x
Left Base	1x
Right Base	1x
Left Side	2x
Right Side	2x
DIN Rail Holder	2–6x

Sides / Top Magnet Holders	14x
Bottom Magnet Holders	4x

Print Settings Recommendation

- **Material:** ABS / ASA recommended (PETG is fine if enclosure temps remain moderate).
- **Layer Height:** 0.2mm
- **Infill:** 20% - 30% (Grid or Gyroid)
- **Wall Loops / Perimeter:** 4 walls, 4 top/bottom layers.

Model files



upper_plexiglass_holder.stl



base_left_3_fans.stl



base_left_2_fans.stl



base_left_no_fans.stl



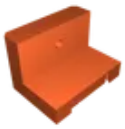
upper_right_side.stl



base_right_2_fans.stl



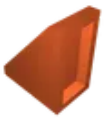
base_right_no_fans.stl



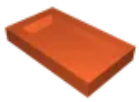
din_rail_holder.stl



right_side.stl



plexiglass_magnet_holder_lower.stl



plexiglass_magnet_holder_upper_and_sides.stl



left_side.stl



bottom_plexiglass_holder.stl



upper_left_side.stl



base_right_3_fans.stl

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