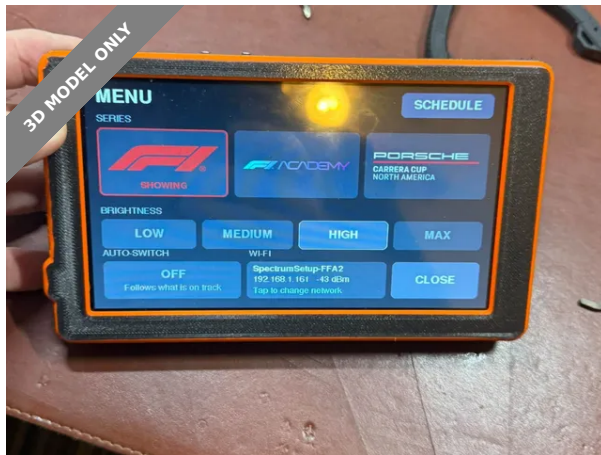




Just-A-7" CrowPanel Case for the Elecrow CrowPanel 7" ESP32 Display, with Battery Bay)

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Summary

A slim, supportless case for the Elecrow CrowPanel 7" ESP32 display (DIS08070H, V3.0), with a battery bay, flush BOOT/RE

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[crowpanel7inch](#) [justaguy3d](#)

V1.0

- Initial release

What is it? It's a case. Just a case. But it's got room for a 10,000 mAh battery. The Just-A-7" CrowPanel Case is a slim, two-piece enclosure for the Elecrow CrowPanel 7" HMI ESP32 display (DIS08070H, board revision V3.0). It takes the bare board and turns it into a clean, portable, battery-ready display, with every port and button you need still within reach.

What's Inside?

- Battery Bay: A walled 102 × 60 mm pocket that fits a 1160100 LiPo (about 11 × 60 × 100 mm), with room for 3 mm foam on both sides to keep the battery off the board, and a slot for the leads.
- Slim Bevelled Back: A 45° bevel all the way around keeps it tight, about 190 × 110 × 33.5 mm all-in, and means no supports.
- Flush BOOT & RESET Buttons: Flexing tabs printed right into the shell press the board's own buttons. No extra parts, no pin holes, nothing to snag.
- ⚡ Power Switch Mount: A slot on the top edge for a small panel-mount slide switch.
- Tight Seams: Snap ridges along the edges, plus an optional two-piece TPU gasket, so the long edges close up and not just the corners.
- Full Port Access: USB-C for power and programming, plus the TF card slot.
- Built From Elecrow's Own Files: Dimensions come from Elecrow's official V3.0 design files, not a ruler.

What You'll Need

- 4 × M3 heat-set inserts (4 mm long, 5 mm OD)
- 4 × M3 × 8 mm screws
- TPU filament for the gasket (optional)
- For the switch mount (optional): an SS12F16 panel-mount slide switch and 2 × M2 × 5 mm screws

Print Settings: Good news, no supports. Every overhang is 45° or less. Print the front bezel face down and the rear shell back down, and you're set. Printed on my Snapmaker U1.

- Material: PETG recommended for the shell, since it handles the flexing button tabs better, though PLA works. TPU for the gasket.
- Walls: 3-4 wall loops
- Infill: 15-20% (I use Adaptive Cubic)
- Gasket: Print it flat in TPU. The sealing fin is a single 0.4 mm line, so use a 0.4 mm nozzle and make sure your slicer doesn't drop thin walls.

Assembly is simple: melt the inserts into the bezel, drop the board in screen-down, lay the gasket in its channel (fin up), add your battery and switch if you're using them, then snap the halves together and drive the four M3 screws. The halves snap together by design. To open it back up, take out the screws and flex the bezel lip outward at the USB-C opening.

Good to Know

- Board Revision: This is built for the V3.0 board. If yours is an earlier revision, print the fit gauge first. It's a quick test print for the outline and screw holes.
- Battery Polarity: Before plugging a battery into the BAT socket, check its red and black wires against the + and – marks on the board. Not every maker wires these plugs the same way.
- Switch Rating: The SS12F16 is only rated 0.5 A, a little low for this screen. A beefier slide switch is the safer choice.

Included Files

- 3MF project with all four parts: front bezel, rear shell, TPU gasket and fit gauge
- Each part as a separate STL:
 - Front bezel
 - Rear shell
 - TPU gasket (two pieces)
 - Fit gauge

This is a remix of the [ACOS Elecrow CrowPanel Advance 7 enclosure](#) by Alley Cat. That case was built for the Advance board and doesn't fit this one, but its overall approach is where this design started.

What I Built With It I designed this case for the Just-A-Tracker, a trackside live timing screen for F1, F1 Academy and Porsche Carrera Cup that I take to my flag marshal post. The firmware, the full bill of materials and the OpenSCAD source for this case are on GitHub: [link to GitHub repo]. The build story is at justaguy3d.com.

This remix is based on



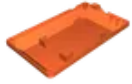
Elecrow Crowpanel Advance 7 Enclosure

by Alley Cat

Model files



crowpanel7.3mf



crowpanel7-rear-body.stl



crowpanel7-front-bezel.stl



crowpanel7-gasket-tpustl.stl



crowpanel7-fit-gaugestl.stl

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