Raven Armour Modular Fairing System for the Begode T4

Unlearn

VIEW IN BROWSER

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Summary

Raven Armour Modular Fairing System for the Begode T4

Sports & Outdoor > Outdoor Sports

Tags: armour armor t4 euc fairing begode begodet4

Version 1.0 (Nov 2023)

3D printed Raven Armour, a strong, modular fairing system for the Begode T4 EUC. Featuring interlocking pieces extending surface area of each side of the unit for placement of power pads and accessories.

Updates

- 24 Jan 2024. Fixed Upper Handle Alt Left STL weirdness.
- 18 Jul 2024. Added battery pack measurement and some details images. Improved description.

Features

- Modular interlocking pieces.

- Designed to encase battery packs, anchoring on the top and bottom caps. No Velcro is needed to hold in place.
- Can be easily removed for cleaning.
- No additional screws required (existing screws are used for handle pieces).
- Upper pieces can be combined to have front only, front and rear, rear only or no handles (see config options image).
- Handles can act as a stand.
- Printable on a 300 mm bed.
- Total weight: ~2 kg (depending on materials, without Velcro and pads etc).
- Width (without handles): 308 mm, depth: 213 mm.

Handles or no handles?

The T4's trolley handle is mostly usable, but, actually carrying the T4 is difficult and awkward due to there not being any good locations to grab the unit.

The T4 is an off-road focused EUC, however, a lot of trails have very tight access gates and obstacles to stop larger vehicles and animals, and may have rocks or drops offs which you can't ride over. Having handles to manually manoeuvre wheels around obstacles is a great improvement.

Handles can also help with breaking and control whist riding, or dismounting.

Will it fit my T4?

- **Modelled on batch 3 of the T4 with plastic battery cases (The first T4 batch with the spiky pedals, released around December 2022).**
- There is a calibration fit-test piece which can be printed to test the dimension of your unit's battery and ensure the system will fit your unit.
    - This piece is a slice of a bottom section of the armour designed to fit the bottom of the battery packs.
    - Print at any quality/material you desire, it should fit snug, but not tight, against the bottom of any of the battery packs.
- Designed on the battery pack height (including top and bottom caps) measuring ~304 mm. (See measurements image)
- It may fit later batches, but I don't have any details of their dimensions.

Print Recommendations

- 3D printer must be properly calibrated to ensure models match output dimensions.
- Minimum wall & bottom/top count of 4 at a 0.2 mm layer height.
- Ensure your bed size is at least 300 mm.
- Handle parts Infill: Gyroid 20%. Or higher at specific weak points.
- Other parts infill minimum: Gyroid 10%.
- Handle insert should be printed in a horizontal orientation for strength.
- File or sand any sharp edges of your prints.
- Tested Filament Material: PolyMaker PLA+ PRO.
- Upper and lower parts should have bed only supports enabled.

Notes

- Most photos are of various pre-release versions of pieces, so may not exactly match the models.
- Rear lights of the T4 need to be removed, but there is plenty of space on the fairings or handles for attaching third party lights.
- Velcro brand Heavy Duty 50 mm x 2.5 m Velcro recommended for attaching pads to the armour.
- Upon testing, handles may not survive a hard crash, but this is a good thing, as it removes stress on core components of the EUC.
- The pads in the photos are the “Kinetic pads” from <https://www.thingiverse.com/thing:5844288> printed in TPU95 scaled to 88%.
- All stl files have been fixed via Formware.

Model files

raven-pro-v10-fit-test-lower.stl

T4 PRO Fit test piece

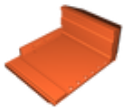
raven-v10-fit-test-lower.stl

T4 Fit test piece

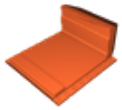
raven-v10-upper-handle-left.stl

raven-v11-upper-handle-alt-left.stl

Use for front only



raven-v10-upper-no-handle-left.stl



raven-v10-mid-left.stl

raven-v10-lower-left.stl

raven-v10-center-insert.stl

raven-v10-handle-insert.stl

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