



Steam Frame Controller Ergo Strap for FDM



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Summary

Based on the original CAD files from Valve. Modifications were done to strengthen tabs for FDM printing

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This is a fairly simple modification of the OEM ergo strap battery covers to make them a little easier to print, and stronger where there's room for more material. There are two versions - one oriented to keep the original curve, with the tradeoff being more support material required for the very steep overhang, and one where it's been oriented and a small bit cut off for easier printing and less support required, but leaves a slight cosmetic gap. In the photos, the right controller was printed with the model with the flattened side, leaving a clean gap. The left controller was printed without the flattened side (original curve). There is less gap, but the support material makes for a rougher edge that needs more post-processing.

For strap material, any 16mm - 20mm elastic should be suitable. The slots are about 16mm wide, but wider material will hold in the top and avoid slipping through (your preference). Elastic strength is your preference, but I used this 3/4" (19mm) Non-Roll Elastic band material (<https://www.michaels.com/product/34-black-nonroll-elastic-by-loops-threads-10829927>), since it's elastic it pulls through. One package (1 yard) made both hand straps with little to spare.

I'm not sure the positioning for the straps that Valve chose is the best. It's not easy to reach up on the DPAD or the Y button comfortably with the straps for average-sized hands.

You will also need the ergo kit controller keys:

In addition to the battery covers and ergo strap keys, you will need a simple ladder lock - scale/stretch to fit your band width -

This remix is based on



**documents-controller/
Valve_Steam_Frame_Controller_20260925.zip · master ·
Steam Hardware / Steam Frame · GitLab**

Model files



fdm-strengthened-strap-battery-covers-flat-face.stl

☐ Recommended for most prints. Leaves a cosmetic gap, but prints easier.



fdm-strengthened-strap-battery-covers.stl

☐ Original curves, requires more post-processing

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