



Pen Holder - Loadout



An_R_Key

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Summary

Stay strapped, keep your pens on you for whenever you might need them



4.91 hrs



3 pcs



0.28 mm



0.40 mm



Flex



38 g



Creality
Ender 3 S1
Plus

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Background:

I'm a product designer and in my day to day I carry three pens in my bag at all times: a .05 Micron, a Sharpie, and a Copic Classic. With these pens you can draw almost anything at a moments notice. The issue was they took up too much space in the bag and I needed them to be more accessible. I tried a lot of variations in the design and this was the final one that I decided served all functions and features best for these pens. Comment what pens/clip sizes you want to see so I can make more variations to fit your needs!

Specs and Printing:

The clips are built for 20.5mm x 1.2mm webbing, this was on my Arc'teryx Mantis 1 bag but other bags will work too.

I recommend printing in TPU since this part needs both flexibility and for durability of the clasp motion.


This model was prototyped and printed in 95A TPU from Sainsmart at .28mm draft quality. The top and bottom are printed at 20% and the bridge is printed at 100% for rigidity.

I have tested the top and bottom with as high as 100% infill and the clasps still work but are much more stiff.


Model files

top.3mf

bottom.3mf

 20%+ Infil TPU


bridge.3mf

 100% Infill TPU

Print files


bridge.gcode

 Flex  0.40 mm  0.28 mm  1.23 hrs  11 g

 100% Infil TPU

bottom.gcode

 Flex  0.40 mm  0.28 mm  2.42 hrs  18 g

 20%+ Infil TPU

top.gcode

🌀 Flex 🌀 0.40 mm ≡ 0.28 mm ⌚ 1.26 hrs ⚖️ 9 g

📦 100% Infil TPU

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