



## BLTouch BL-ARMOR



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updated 8. 6. 2022 | published 26. 2. 2022

### Summary

The BLARMOR was created to not only protect the deploy needle, but more importantly the entire BLTouch itself.

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The **BLARMOR** was created to not only protect the deploy needle, but more importantly the entire BLTouch itself. Care has been taken into consideration to create a strong cage around the BLTouch without sacrificing the illumination, nor any cooling of the electronics on the reverse side. The base fits directly over the BLTouch and the bottom is angled to help deflect some of the load if a print or obstacle is struck by the BLARMOR.

#### Version modifications:

I have made some small tweaks to the original design for a better fit. There is a curved section of the towers which curve around the BLTouch label side. Hole diameters are slightly larger. I have adjusted some lower and upper heights.

I have created a bottom bolted design style. You will need M3 x 40mm for this. The longer bolts increase the part strength, as apposed to having

very short screws at the top. Torque placed on the threaded mounting is reduced.

To install, insert M3 bolts from the top (or bottom depending on style). There is a large allowance for threads, I suggest adding longest possible threaded bolts as possible for collision strength. I use M3 x 18mm.

### Notes:

I suggest printing with at least 15% infill with lines or triangles for strength. You can print it solid, you are not saving much anyway. Should be printed with at least petg, however asa, abs, polycarbonate or nylon would work equally well. I have made modifications to the BLARMOR to allow easier printing. I used clear petg for my install.

Printing more than one at a time also helps, especially if you do not use tool cooling. This is what I do and the prints came out perfectly.

One thing also to note. There is a flaw in the BLtouch design. If you screw the allen set screw in too far, the pin will protrude outwards further in the resting state. So if your pin is sticking out of the BLArmor, you will need to adjust your allen set screw back some.

Also, sometimes **the pin sticks** inside the BLtouch. This has nothing to do with the BLarmor. The cure that we have found so far is to take the pin out and add TinkSeal (you can Google this) to the pin. Then wipe the pin completely clean with a soft cloth. This adds a dry slick nano-particle surface to the BLtouch pin.

Special thanks to everyone involved with the evolution of this print, including Constantijn.

## Model files



Top Mount Style

1 file



bl-armor-v5-top-mount.stl



## Bottom Mount Style

2 files



**bl-armor-v4-bottom-mount-supports-needed.stl**



**bl-armor-v55-bottom-mount-no-supports.stl**

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