ASSEMBLY

Glue two pieces together to make one post. If you use a fast-setting adhesive like CyanoAcrylate, you may find they bond very quickly. It may take a bit of practice to get the alignment correct quickly enough. Some plastics like PETG do not seem to make CA glue cure very quickly. Use a medium thickness CA glue. The type sold in DIY stores as Mitre Adhesive works well. If you use an accelerator, it will greatly speed up the process.

For ABS, you can try solvent adhesives which are more forgiving but may require the parts to be held together for some time whyile the glue set up. Consider a grid of 6mm holes in a piece of scrap material

DIMENSIONS

Each piece is one half of a post with the overall outer dimension set to 11.5mm Test your assembled parts. They must finish at less than 12mm across the flats to ensure that tolerances are met.

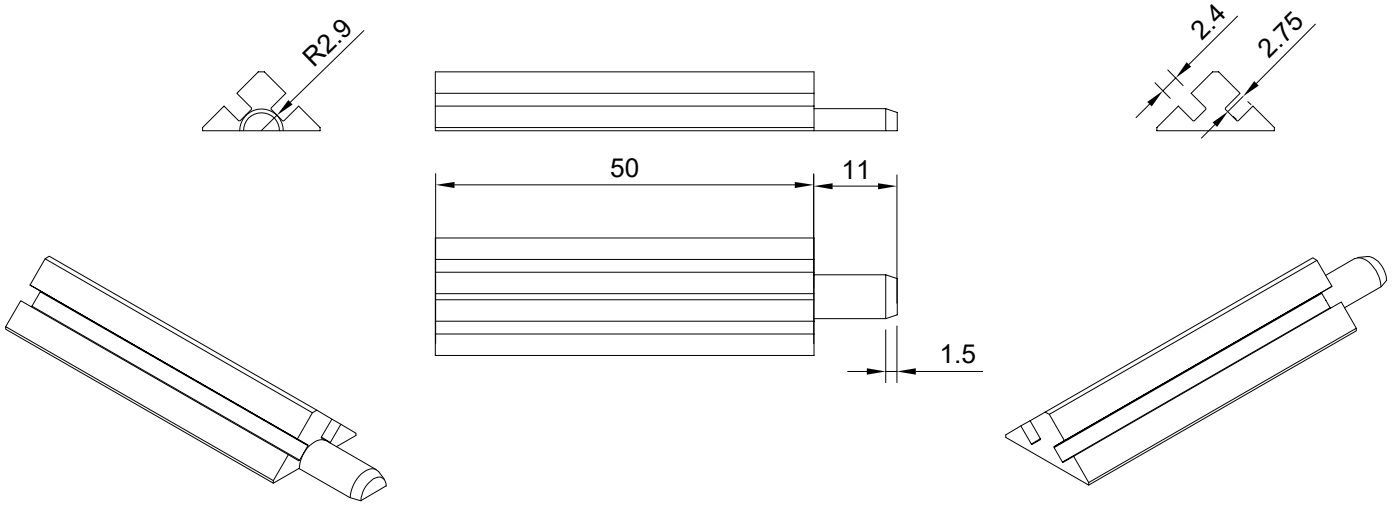
The peg is shown at 5.8mm diameter. This is less than the nominal 6mm but it turns out to be hard to get perfect alignment when gluing the parts together. Also, your slicer settings and layer height will affect the finshed overall diameter and fit. Make test prints.

There is a slight chamfer on the corners to help mitigate the tendency for some printers to produce a bulge at corners.

MANUFACTURE

Posts are typically 3D printed in half pieces. ABS or PETG is preferred for its strength. PLA will work but is more brittle.

With a 0.4mm nozzle, on a Bambu P1S, each complete post will take about 8-9 minutes with a 0.24mm layer height. Use 6 walls loops to get a solid post. Fewer for a faster print.



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