

Executive Summary

This month I moved the thrust vector up by 1.0 mm to bring it more in line with the center of mass. Also this month, I increased the size of the vertical and horizontal stabilizers tripling the available surface area. Finally, I trimmed the starboard and port panels thus stream lining the MkI Viper.

Technical Stuff

This month, after reviewing earlier launch videos, I moved the thrust vector up by 1.0 mm to bring it more in line with the center of mass. As such, most of the month was consumed by reprinting all the PLA struts. Also, I fiberglassed and painted a new bottom pan from the PLA mode. Painting the mold is more aesthetic than functional and it only added three gram to the mass.

Also this month, I increased the size of the vertical and horizontal stabilizers tripling the available surface area. I found some RC styrofoam vertical stabilizers online with servo mounts in the fin (pictured below). The styrofoam fins tripled the surface area but had the same mass as the smaller PLA fins. This will give me more control at launch.



Finally, I trimmed and painted the port and starboard panels. Again, painting is purely aesthetic and only added ~ 10 gm to the mass. The trimming results in a more streamlined fuselage (I hope. Again, my kingdom for a wind tunnel).

Not much more to report. Most of the month was dedicated to designing, printing, and fiber glassing. Next month, weather permitting, I plan to launch the new MkI Viper.