

3D Printed Destroyer

Challenge To design print and sail a 3D printed ship

Semi-scale Length 66cm Beam 9.7cm Height 25cm

I started the project in June 22 and so far most of the design is complete, and most of the hull and superstructure have been 3D printed successfully (*Fig 1 and Fig 2*). I have also printed and constructed the motor mount, and reduction gearing.

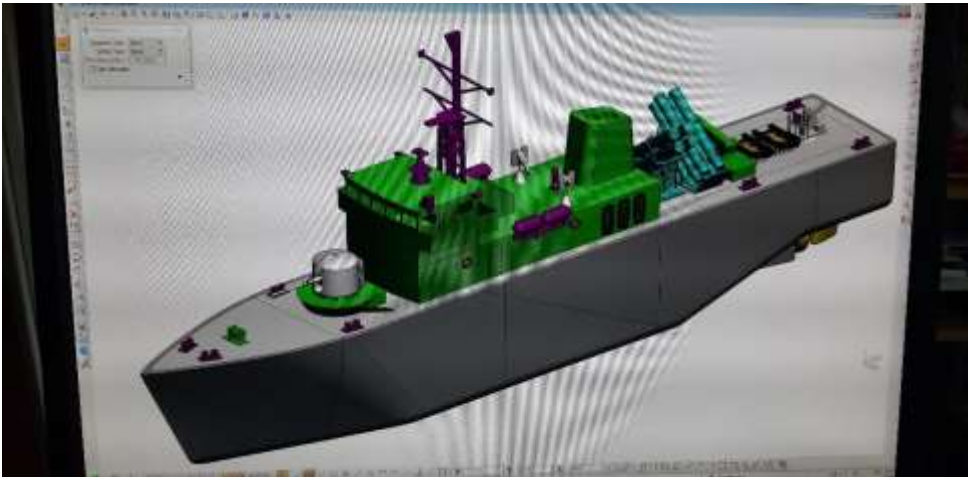


Figure 1



Figure 2

Hull sections and most superstructure printed and ready for assembly.

It has been a 'scratch' build using plans for dimensions, size and layout for general guidance.

Some of the issues I have had to grapple with:

- Tolerances for printing needed experimentation
- Minimum dimensions for printing reliability
- Learning about brushless motors, prop sizes ESC etc
- Learning to design helical gears (*Fig 3*)

Next to print are the small parts (mast, life-buoys, mooring hitches, etc) while the hull needs final sanding prior to paint/finishing.



***Figure 3* Designed and Printed Gearbox and Helical Gears on the Propshaft**