Aquila

(DSR 001)
Overview

Designer: Glen Varga
Desert Sky Rangers 2022

The DSR 001 AQUILA was intended to be a beginner plane for anyone new to RC flying and builds. It is an easy plane to build and an even easier plane to fly. This simple 3-4 channel (AET(R)) flies like a paper airplane with moderate dihedral for self leveling, and an optional rudder for more advanced aerobatics and maneuverability if desired. Designed as a belly lander, this plane also has easy adaptability to add landing gear, tricycle or taildragger, skis, floats or nothing at all. The stall characteristics make this plane very easy to fly at slow speeds, making landing very simple, and higher speeds are still safe for the beginner without losing control.

These plans are laid out to build 2 planes at once. Cut carefully, and you'll have your spare plane ready to go or one for a friend. Following many of the strategies and techniques implemented and modeled by the creators at Flitetest.com, similar design techniques are utilized here. Refer to the YouTube videos published by Flitetest to see examples of how to perform these techniques.

Recommended hardware:
- Servos: 3-4 9g
- ESC: 20A
- Motor: 1806 2280kv, 2204 2300kv
- Prop: 5 inch 2 blade moderate pitch, 5 inch 3 blade moderate pitch (with larger motor)
- Firewall: 3d printed firewall recommended, (but 3/32 plywood works great, too). Printable designs found here: https://www.thingiverse.com/thing:5409435

Other necessary tools and accessories:
- 2 sheets Adams or Ross 20" x 30" foamboard (available at Dollar Tree or Walmart for $1 a sheet). This will yield 2 planes, but you have to have both sheets to only build one . . . might as well build 2, right?
- Hot glue gun (2-3 glue sticks should do it).
- Utility or Exacto knife (recommend that you use a straight edge for cutting)
- 2-3 barbecue skewers, dowels, or chopsticks.