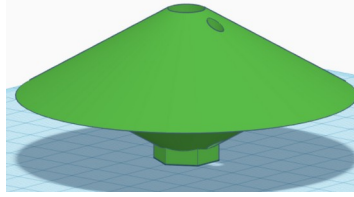


Art Applewhite Rockets

from deep in the heart of Texas

3D Printed 13mm Delta



Please email me at rocket877@aol.com with any corrections or suggestions you may have. This design is directly descended from the cardstock version of the 13mm Delta.

Recommended motor: A10-PT only.

Note: If you can't get A10-PT motors, then A10-3T or A3-4T can be used, but be prepared to put out a grass fire if the ejection charge goes off after the rocket has landed!

Construction:

1. Your results may vary depending on a large number of variables and settings. I hope I have provided enough detail to make your first try a success.

2. The STL file was made using TinkerCAD available for free at tinkercad.com

3. The gcode file is was made using the Ultimaker Cura slicer available for free at ultimaker.com.

Here are some of the settings I used:

Printer: Creality Ender 3

Filament: PLA

Layer thickness: 0.2mm (Standard Quality)

Infill: 10% Gyroid

Support: None

Build Plate Adhesion: Skirt

All other setting are the default or recommended values.

4. STL or gcode files will print the rocket upside down. This is so the rocket can be printed without supports.

3. The motor may fit either very tightly or very loosely the first time the rocket is flown.

(a) If it's too tight you can either re-print the rocket using a scaling factor >100% or you can sand the inside of the motor mount a little until the motor fits snugly enough not to fall out.

(b) If it's too loose, either re-print the rocket with a scaling factor <100% or neatly wrap, one or more, layers of masking tape around the motor so that it won't fall out when the rocket is held upright. Once the rocket is flown a few times the motor mount may loosen up due to the warm motor casing heating up and slightly deforming the plastic.

Flight Preparations

Insert the motor into the motor mount. It should fit snugly enough so that the motor will not fall out when the rocket is held upright and the launch clips are attached.