



June 2020  
M2 Update

## M2 Tail and Boom





## M2 Large Panel

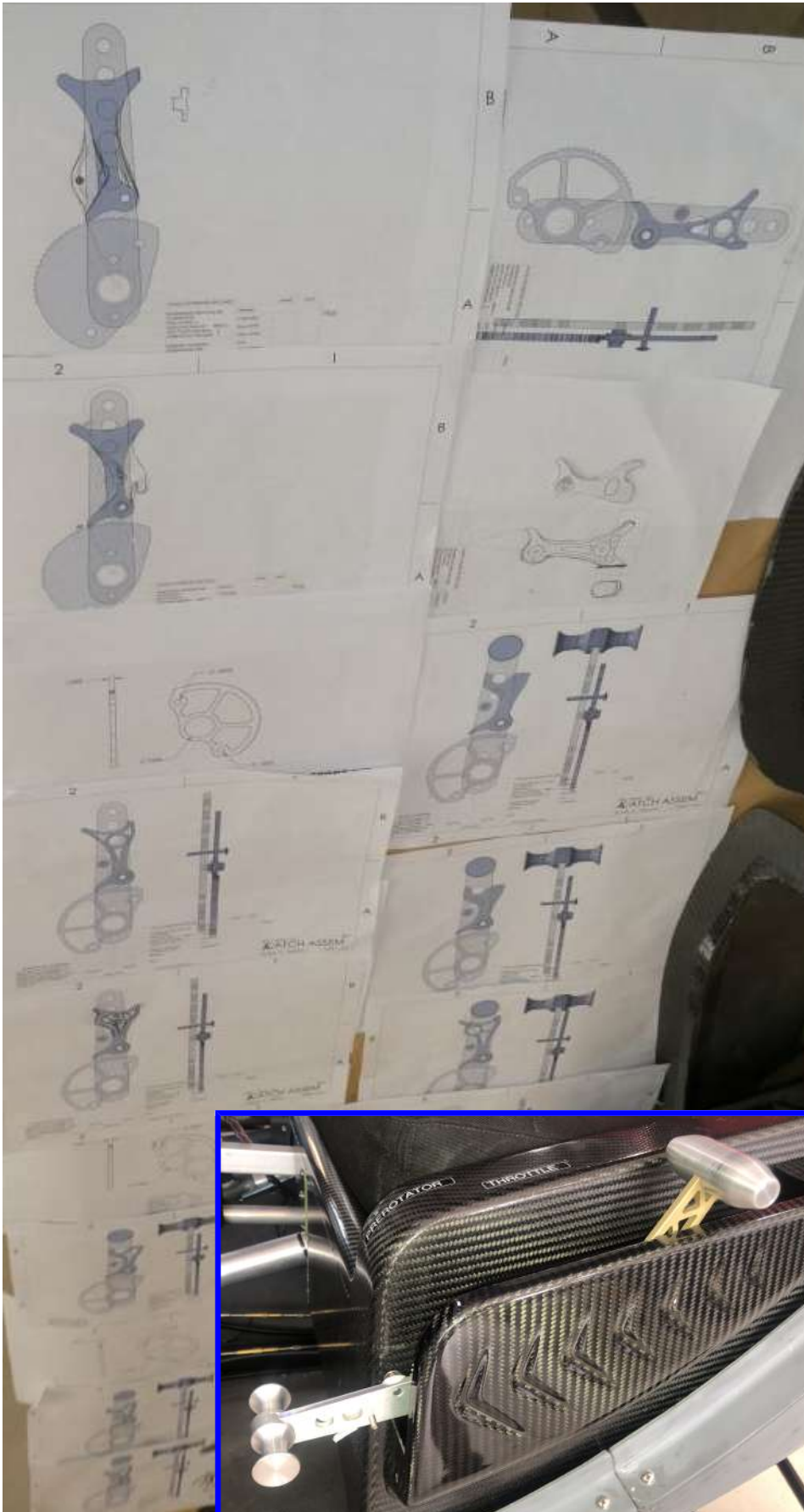








## M2 Throttle & Prerotator Controls



The interface between man and machine lies in the controls. It's an area which rarely receives ample thought, especially in aviation. While "*form follows function*" is sound engineering doctrine, the form of aircraft controls can be as important as function. Controls are the "symbiosis" of a pilot and gyro.

A badly formed control is one that you consciously *notice*.

At left are our design iterations of the throttle and prerotator controls. Each has their own distinctive shape, to create unique muscle memory. They must lie naturally beneath the hand, with a complementing range of motion.

These controls' interrelated function was a challenge. To engage the prerotator, gradually pull back its control. This automatically disengages the rotorbrake!

Adding full throttle to launch automatically disengages the prerotator (also rotating it out of the throttle's way). This is a great safety item somewhat similar to the SCII.

These dual controls require precision special machining, which is now in completion.

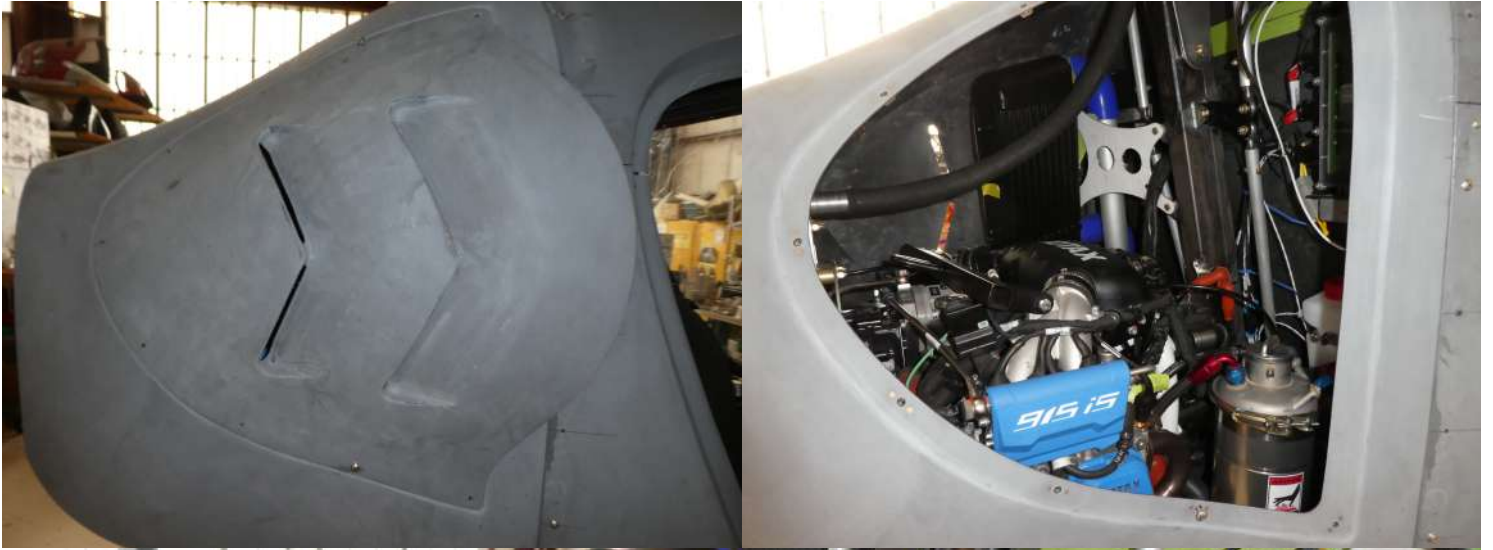
## M2 Prepreg Carbon-Fiber Parts



As we continue to build molding tools and parts for more machines and we are working to finish ASAP to be in the air in July.



## Firewall Wiring of Rotax 915



## M2 Rotorhead Parts



Currently...we are continuing with finishing up all of the final few areas that were specified in the last report, an example as you can see several sets of rotor heads were made but first we had to assemble an unanodized rotorhead and check the final fit bolt length, moment of degrees when attached to the controls and dimensional specifications that should match our SolidWorks drawings etc., then disassemble and push out the bearings and bushings of the rotor head, gold-anodize, reassemble, and remount.

Everything in this vital area was completed to our high expectations. Everyone who has visited Sport Copter recently to see the M2 machine really likes the look and engineering of our new heavy-duty M2 rotorhead and its  $\frac{3}{4}$  inch gimbal bolt.



Safe flying!



Off. 503.543.7000      Fax 503.543.7041      [www.sportcopter.com](http://www.sportcopter.com)

“REMEMBER: WE BUILD THE BEST BECAUSE WE WILL ONLY FLY THE BEST!!”