Manufacturing Process

* I measured out various diameters on a 'Fomular 150’ sheet that will stack up to be glued into the rough outline of the desired payload shape.
* I created a base plate for both ends of the rough outline so that it can be mounted properly into a lathe to be turned. These base plates had a small column of Fomular so that I could glue them on to turn the Fomular so I could keep the payload shape true.
* Using a ‘rattail’ file, I turned the rough outline of the payload into a close shape resembling the final shape of the payload. I didn’t turn all the way because there may have adjustments to make. After the turning was complete I cut the Fomular columns off and rounded the cut nubs of both sides.
* With the final shape of the payload, I assembled a ‘Hot-Wire’ to cut the payload in half. Using an old power supply, wires, and piano wire I was able to make the wire hot enough to slice through the Fomular. To keep the cut straight, I created a jig using a wooden square and circular dowel.
* After the payload has been cut in half I used a large sheet of sandpaper and a flat piece of particle board to sand the whole face of the two pieces flat for the seam to be prefect.
* To carve out the center of the payload for the electronics, I measured an inch around the flat face of the two Fomular pieces as the boundary to be carved out. Using a circular carving knife I gouged out the center of the two pieces to make to cavity for the electronics.
* The payload ended up being too big and heavy. As a result of this I fashioned the two pieces back together to be turned once more on the lathe. This brought the edges from one inch thick to one quarter inch thick.
* To get the center of the payload gouged out faster I used a dremel with a wire wheel to “grind” away the Fomular on the inside. This worked very well as it took a large amount of material at a time as well as smoothing out the Fomular.
* Once the payload was carved out and smoothed on the outside we fashioned the payload pieces together with toothpicks and aluminum tape to be launched.