

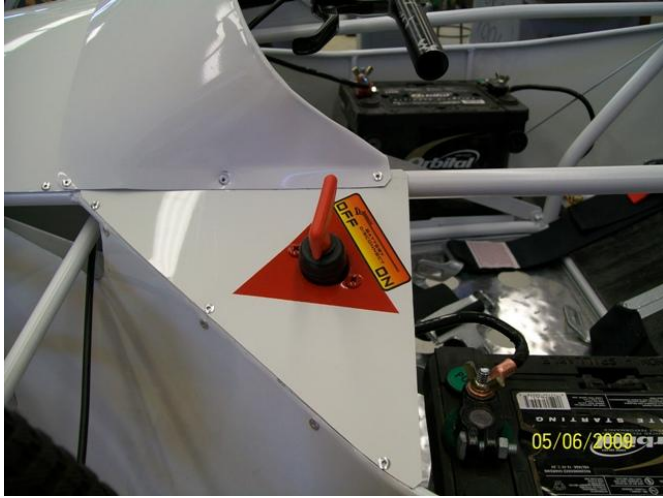
Now very close to being able to take this thing for a test-drive, I just need some circuitry for the motor and controller. The first part is mounting the main power switch through the triangular panel on the left side pod. 😊

After that, I was able to run the battery cables. I didn't take any specific pics of this step because it's just a matter of cutting the cable (# 4 AWG) and soldering on the ends. 🤓

With the cables installed, next step is to install and wire the "dead man switch" and potentiometer. The "dead man switch" is required by Electrathon America. If the driver lets go of the controls, either deliberately or due to some sort of incident, all power to the motor is cut off. In this case, I used a little microswitch located on the left bar of the steering "wheel". When the driver's hand is on the controls, the upper part of the left forefinger holds the switch closed. If the driver's hand lets go of the steering, the controller cuts off power to the motor. 🤓

The throttle in these cars is a 5K ohm potentiometer which signals the controller. There are several options available for this including foot operated "pot box" assemblies and twist-grips similar to what is found on motorcycles. Everyone has their preferences, but I like a hand operated throttle. In Electrathon, consistency is important to battery life and having a throttle that the driver can "set it and leave it" helps to promote consistency. For this instance, I made a bracket from 1/16" wall 1" aluminum angle. I drilled and shaped the bracket and riveted it to the right bar of the steering "wheel". I positioned this so the potentiometer is accessible with the driver's right thumb. Roll the knob up to accelerate, down to decelerate. 🤓

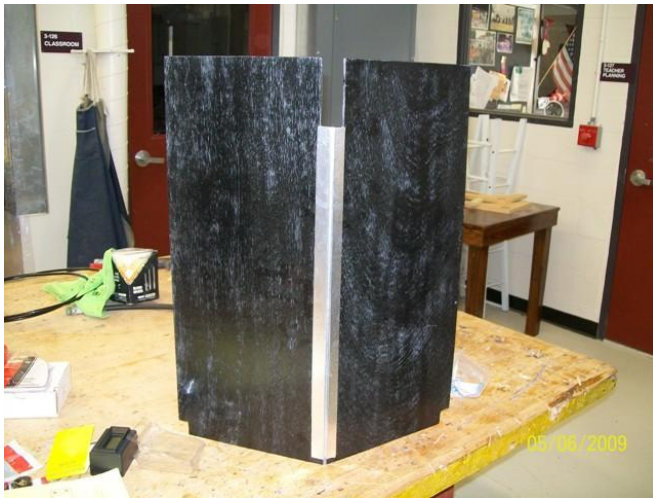
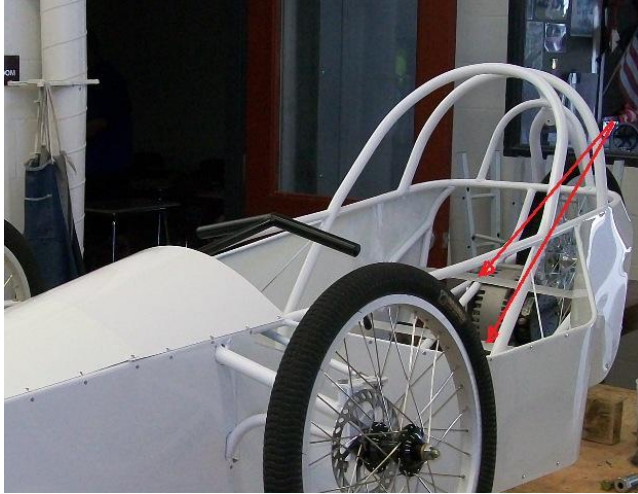
Attached Images





If you remember from back near the beginning, I cut a "temporary" seat back from 1/4" luan plywood. It's light enough and rigid enough to be made "permanent" so here's what I did. First I riveted two strips of 1/16" x 1" aluminum across the seat back area (arrows). Next, I split the "temporary" seat back down the middle. After painting both halves (both for appearance and preservation), I hinged them together with duct tape. Now I can easily remove & replace it for access to the motor & controller. 🚲

Attached Images



In an Electrathon race, success and survival is all about battery life. 🌐 In order to monitor how much juice you're tapping from the batteries, an ammeter is necessary. In this case I am using a digital unit. I made a little aluminum panel to hold it and riveted it under the cowl. The wiring feeds through a hole in the panel and into the back of the ammeter. 🇺🇸

Except for the lack of a torso and some legs stuffed down in the nose, the second pic is pretty much the view from the cockpit.

Attached Images



OK, all major components are in place. It's time for a test drive. I took it outside and toiled it around the parking lot after school. I discovered very quickly that I had forgotten to tighten the nuts on the rear axle. 🤔 Quickly fixed that... Otherwise, the test was without incident. The car is extremely smooth and quiet. 🚗 This was Thursday evening (May 7th). Pic is the car as tested.

Today (Friday) I forgot to take my camera. 😞 My kids and I did a little thrashing to get some last minute things buttoned up; I have a race tomorrow! 😊 We made the lids for the battery side pods, adjusted the brakes, made a seat pad from 1/2" foam sleeping bag pad, and installed an electronic bicycle speedometer. Hopefully, after tomorrow I will have some action photos to post here... 🚗

Attached Images

