Results from May 9<sup>th</sup>: I'm sorry to say... I should have stayed home!..<sup>3</sup> Well, actually I'm glad I went, but the day was NOT a success from a competitive standpoint.<sup>3</sup> It's always risky to take an untested vehicle to a race. Everything started off well. The car drew a LOT of attention...

I drew the last starting position and at the drop of the green flag I was trailing the field, waiting for them to string out. On the straights I was dialed up to pull 23 amps. Strangely, however, in the corners the ammeter was reading 38 - 39 amps when it should have been 25 - 27 amps. Seven minutes into the first race, my right front tire went flat! I limped to my pit, pulled the tire & tube off and discovered two cuts on the inside area of the tube. I wrapped a strip of duct tape around the rim, replaced the tire, installed a new tube, pumped it up and got back in the race. I lasted about another 6 minutes and the same tire went down again! Pulled the tire off again and discovered another cut on the inside near the rim.

Between races I went to a local bike shop and bought two more new tubes, one with Green Slime self sealing fluid in it. I chose to line up last again and got off to a good start. I had passed two other cars and was cruising smoothly, still wondering why the high current draw in the corners (hadn't had time to investigate because of tire woes) when, six minutes in, the right front tire went down again!!! I limped to my pit and removed the tire again. After 15 minutes of cleaning up Green Slime, I discovered that it was cut on the inside again. I put another layer of tape on the rim and re-installed the tire with my last new tube. By the time I got done, there were only a few minutes left, but I climbed into the car and made two more laps before the checkered flag flew. My total laps for the day: 35<sup>(2)</sup> (Should have been around 200 if I had finished both races).

Anyway, I know what the problem was and it was entirely my own fault. I am using double-wall rims on the front of this car. Getting tires on & off of double-wall rims is a real wrestling match and is further complicated by the rubber boot or rim strip. The spokes & nipples are recessed down inside holes in the second wall of the rim and I figured, since they are sort of out of the way, I could run with no boots on the rims... WRONG!! It was the edges of the holes in that second wall that were slicing through the tubes. Unfortunately, I went to Tampa and left the boots lying on my desk at school. My only recourse was the duct tape in my tool box and, as we now know, it's not heavy enough.

After the races I finally got to research the current draw problem in the corners. It appears that my front wheel bearings were "seating in" and allowing the wheels to move slightly on the spindles. This in turn caused the brakes to drag in the corners. I think my car would win an appearance contest pretty easily, but, as we all know in any kind of racing, looks don't make it go. The season is over now, so I have a few months to fix all the "bugs" and get ready for the next one. The good news is we stood the car on its nose on the scales and it weighs 102 pounds complete minus batteries.

Here are a couple of shots of me with the car so you all can get a better idea of the size of it. As you can see, the top of the roll cage is just below mid-thigh on me (I am just shy of

5'10"). When I am in the car, I am almost fully reclined. It's a close fit in there, but it's fairly comfortable. When I have my helmet on, my head is propped up just a bit more. If I were to change anything at all, I might raise the roll cage an inch just to make getting in and out with my helmet on easier. Overall, though, I am very pleased with the way it turned out.

Attached Images

Here's a pic I missed posting previously. After I was done installing all the controls and wiring on the "steering wheel", I installed 1" heat-shrink tubing on the grip areas.

Attached Images



For that last race, I was running out of time so I hurriedly made a couple of simple brackets from 1/16" x 1" aluminum to hold the rear view mirrors (required by the rules). Unfortunately, the brackets were too short and using the mirrors required me to raise my head up and lean to the side to see them... Instead of just making longer brackets and sticking the mirrors further out into the airstream, I decided it would be nice to make something a little more aerodynamic.

I began by making a pattern from poster board. Once again, I made the pattern more than once before I was satisfied with the shape and fit... Next, I transferred the shape to a piece of aluminum. I traced the pattern once, then flipped it over for the second piece so they would be exactly opposite each other (one for each side).

To form the flanges on what would become the bottom of the mirror nacelles, I used a piece of hard wood with a straight edge and a rubber mallet.

I formed the shape of the aluminum pretty much by bare hands. The stuff bends pretty easily, so I just kept working it until I got the shape I wanted. When I was satisfied with the shape and had them as identical as I could get them with "calibrated eyeball", I made new mirror brackets form 1/16" x 1" flat aluminum. I replaced the old short brackets with the new longer ones (2" longer) and then installed the new nacelles in front of them. I think we can now call this car complete.

Attached Images



