

# Preble Formula High School



2010-2011

# Team Monster



In this picture: Corey Jonet, Tyler VanEss, Khue Lor, and Luis Alavez



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# About FHS

Formula High school is a program created and also taught by Jeremie Meyer at Preble high school. This class is for any students that are in to engineering and hands on experiences. Students learn how to use CAD program, welding, fabrication, meeting a deadline, and getting sponsors. What we do in this class is we have 8 months to build a race car then take it to track day. We also had to find sponsors so that we can built the car and help the team out when need. We also do the same thing as you would in other class make brochures and writing. Track day was April 30<sup>th</sup> and May 1<sup>st</sup> in road America in Elkhart Lake, WI.



## Mysterian M5

The model of the body came from Sugar Grove Custom Car (SGCC) the Mysterian M5 one of the car that was first built.



# Design Process



We first drew our chassis of our car on the CAD, this is to make sure we get it in the right measurement and to know how we would like it to be. When we were done the CAD we then tape the floor were we will be work around, the tape is the same length and width measurement size that is required to built the car, this is something that will help us so that there is no mess up with the car. After we were done drawing on the CAD we then went on and measure out our metals.

# Building

When we build this car it was a whole lot of fun but stressful, and difficult. When we first started it was fun just to take apart everything from the old car and trying to put every in an organized way so that we can come back and easily find it, taping the floor were we will layout the new car, cutting out metals, welding the car together and best of all having the car run. When we were done with stripping out the old car, we then started in cutting out our own metals to start the car. We then started to lay the metals out, we lay the metal on top of the tape so that it is the measurement for the requirement (the tape had been measure to the require size). We then measure it once again to make sure it's the right measurement.



Then everything became stress and difficult, we will have a wrong measurement while everyone thinks it is right, after when we find out it was wrong it was a bit too late because we had weld it in. We then had to grind off our piece, re make it, and put it in the right place and the right angle measurement. We also had used NWTC water jet to help cut some harder metals like our floor mat. When we were done with getting the lower pieces of the car we then had to work our way up of the car. Then we slowly mill out metal tubing for our side support. For the side support we had to measure the tubes and mill it just enough so that the face of the tubes we cut will fit with the others faces of the metal that we are going to weld it to.



Taping



Old (2009-2010)



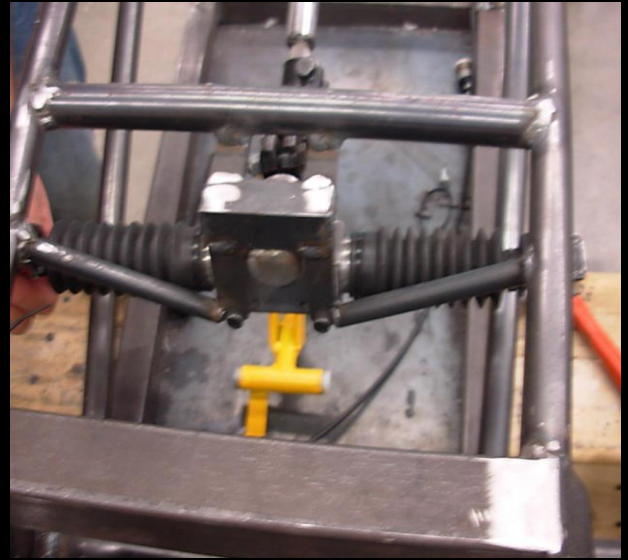
New (2010-2011)

# Building Cont.

When we had all of our side support on we then go into electrical work and the motor work. This is the part when we put in a battery, wires, tubing, clutch and etc. When we did this we had to find out how and where to put the correct wire so that we won't burn out a fuse. We had to put in the start switch, a kill switch, a choke, battery hook up, hose tubes into all right places. When we were putting in our clutch we had to torch wrench it if not we will start having problem. If we didn't torch wrench it the problem would be like blown clutch with the clutch fly out toward you. We also had to make sure that we have the car a line right but the keys back into the wheel bearing and making sure everything fits right and tighten. We then took everything apart again pedals, gear box, and etc. then we went to painted our chassis black we first spray primer, then went to the paint. We then went into our body we did use the old body from last year with the sticker still on there and we had to take them all off for new sponsor stickers. When we had it done we had a team member Luis Alavez brother in law Ruben who painted the body for us. We had that we went back to the car and putted everything back together. We then made a fire wall for our car, it had to cover the both side of the seat to the motor so if there was a fire the drive wouldn't get caught on fire. We then went and had to bleed our brakes, we first had troubles with is this. We bleed it and bleed it but somehow we never got pressure in the master cylinder, took us about 2 weeks about to get it fully bleed. After all this the is running and it was time to wait for track day.



# Pictures





# Track Day



# Race Time



# Sponsors

We would like to give out special thanks to our entire sponsor who supported us with car. Without the sponsor this could have never been done.

**THANK YOU TO YOU ALL!!!!**



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