Team SGCC (from left to right): Max Kraft, George Blaney, Jim Rettler, Zach Peters, Kieran McCabe, Branden Longton, and Nate Boulanger

The first thing that we would like to say is thank you from Team SGCC to the many people that have helped us so far. Although many people have played a big role helping us build our car, there are a few people we would like to make notice of. Some of the major contributors are: Sugar Grove Custom Cars, NWTC, Briggs & Stratton, Hub City, and Ken Glowaki at Fiberglass Solutions. Without all of these contributions, this class and this car would not be possible.

We began this class very inexperienced and had to learn along the way. We started this car by welding together the frame and roll cage. Our teams also went to NWTC to cut out the floor of our car with their water jet. Some of the braces took many bending attempts to complete. We also had to redesign the back end of the car to fit a vertical shaft engine. This process cost us much time as two of our teammates stayed in the CAD lab designing it. At about the same time we pulled the governor out of the engine which enabled us to install a typical gas pedal. Eventually we picked up on what we had to do to finish the car by the required date.

Jim welding the middle roll bar to the chassis.

After we finished the construction of our chassis our team visited Mr. Ken Glowaki, the owner of Fiberglass Solutions. He not only taught us about fiberglass but also helped us lay up our fiberglass body shells. The shells took a day to cure, so while waiting for the shells, we finished the back end of the frame to fit our vertical shaft engine. At the same time, we made another trip to NWTC to cut

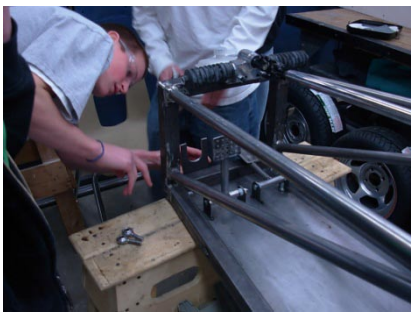
Team SGCC assembling the chassis.

our engine mounting plate with their water jet. When we were able to pick up our shells, we began the long, tedious process of cutting and sanding the shells to the desired shape. As we finished the shells, we mounted them to the frame.

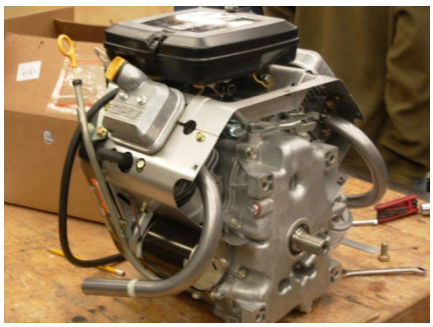
The finished chassis with the floor installed. The steering wheel is being ready to be installed.

The assembly of the steering system followed the body shell process. We had to cut the steering shaft to fit the rack and pinion. At the same time, we mounted the fuel cell, the brake reservoir, and finally were able to mount the engine in its proper place. Around this time, we were also trying to complete front axle assembly. We got the front axle cut and we ready for the next step, but because NWTC was having troubles with their water jet, we were unable to get the needed parts.

Just recently, we have installed the pedals and master cylinder. However, finding the correct position and installation method for the pedals has taken a few tries. At first we were just going to weld the pedals in one place, but found out some parts were inaccessible and that the whole assembly was a little bit too far forward. We resolved this problem by making a system in which we bolt the pedal in place at different intervals to better fit our drivers and make the pedals more accessible. We are in process of finishing the front axle, running the throttle cable, and finishing the exhaust. Although things seem like they are going smoothly, we have encountered many difficulties along the way. Our major problem now is with our exhaust. We have made the necessary tubing, but in the mounting process we welded the exhaust tubing at the wrong angles and are trying to figure out a way to minimize extra work while still fixing the problem.



Adjustable pedals to better fit the drivers.



Our vertical shaft engine with the beginnings of the exhaust system installed.

In the near future, we hope to have the engine totally installed and running. We also hope to finish both the front and back axles and mount them along with the gearbox so that the car will be on rubber as soon as possible.

This first semester has had its fair share of twists and turns, but we have learned from our mistakes and feel that we're better off because of them. We hope this upcoming semester will continue to keep the pace we're at now. If so, we believe we can accomplish what we set out for since the beginning, to finish the car by April 1st.