

## **Team members**

**Team Manager** – **Maverik** – He monitored team progress and was elected the team manager. He has leadership qualities. He also helped Shivam in bearing of the wheels.

**Team Design Engineer** – **Hardik Nagpal** - He designed the car and did the car analysis, he was also responsible for getting sponsors.

**Team Resource Manager**- **Prabhav** -He was responsible to maintain the team budget and as we know that India is a very business minded country. So it is very difficult to take out money from people.

**Graphics Designer**- **Kavish**-He helped Hardik in designing the car and also designed the team logo and the team jersey.

**Manufacturing Engineer** – **Maverik**. He assembled the car parts.

In any business or plan, team work is important and every member of this team has the quality of team work . We have faced many hardships and many times our team had breakdown. One of our team members had left the team due to some personal problem. All of us were helping each other and believed in 'United we Stand and Divided we Fall'.

**Deadline:** - Deadlines were given by the team manager and every task given to the team member by the manager and if the task was not completed on time, deadlines were given and the defaulter were over-loaded and given more time and work in the project.

**Team Uniforms:** - color of the t-shirt is red and yellow which is the color of sun , we have taken this color because we named our car as dark phoenix and phoenix means a thing which is uniquely remarkable . We believe that our car is also unique . The color is also eye catching and the t-shirts are of high quality. The design gives it executive look.

Our car is heavily concentrated on aerodynamics. Aerodynamics means a branch of dynamics that deals with the motion of air and other gaseous fluids and with the force acting on bodies in motion relative to such fluid. The quality of an object that affects how easily it is able to move through the air.

**Down force** is a downward lift force created by the aerodynamic characteristic of a vehicle the purpose is to allow a car to travel faster by increasing the vertical force on the tires thus a down force creates more grip in the car .the same principle that allows an airplane to rise off the ground by creating lots of lift from its wings , the same force that presses the car against the surface of the track, this effect is referred as aerodynamic grip and is distinguished from mechanical grip which is the function of the car mass tires and suspension .

**Nose:** the rounded and tapered shape of the car is designed through the air and it minimizes wing resistance. Looking at most f1 in schools car the front part has a wing but we decided to lower the car at the front so it is not rigid and extended.

### **Spoilers**

We have two spoilers in our car, the front spoiler and the back spoilers. The front spoilers designed to cut through air, it slices the air and because it is extended the air smoothly flows away where as on the other hand the back spoiler we have extruded a rectangle but when we saw that it was rigid and the best option smoothen it so the air will flow easily.

### **Bottom portion of the car**

Bottom portion of the car the bottom portion of the car was designed by Prabhav his idea was to make a conical shape for the CO<sub>2</sub> cartridge so the air will flow easily and the side portion of the car is filleted on the sides so there is no rigid point and the air can flow easily

### **Back portion**

The back portion of the car are one triangle on each of the sides which is finely filleted this portion was designed by the whole team this was the most difficult part of the whole car many times this portion was rigid many times it was not in the regulations but some how we managed to do it.

Thank you