**Semester Project: Milestone 01**

**Date:** 8th March, 2018

**Project Title:**

**Project Participants:**

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**Milestone 01 Objective:**

1. Assembling the car.
2. Obstacle avoidance.
3. Ball dropping mechanism and setting its angle.

**Hardware / Software Status:**

The car was assembled, motors in the right place and ultrasonic sensors, the robot moves avoiding any obstacle in its way (this will be modified after the arena will be finalized). The throwing circuitry works fine but has not been yet mounted on top of the robot. LFR works but only for purely black tape and not for rest, this can be improved using color sensors.

**Lab Outcome & Observations:**

First and most obvious outcome was to work as a group. Then comes the engineering and mechanics of the ball dropping mechanism. Furthermore, the working of the sensors was a learning, as to how to calibrate the sensors accordingly.

**Risk & Challenges:**

How many components required for each task, like servos for ball dropping. Working as a team, and so many mixed ideas flooding in. Power consumption risk, and the risk that the car might not move due to a lot of weight so the materiel selected accordingly. Furthermore, the sensor calibrations on red and blue tapes seems quite difficult.

**Target for Next Milestone (Due in Next week)**

Working on perfecting the LFR and part of color sensing. If time allows we will also integrate LFR with obstacle avoidance logic **finalized** on a software level.