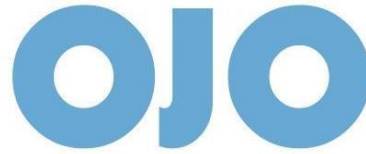


6th Week Report



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This week we primarily worked on two parts. We designed the holder for the lasers and we worked on implementing the algorithm that dictates the overall behaviour of the robot.

Laser Holder

We plan to use 5 mm thick mdf to attach the laser to. The holder will be attached vertically on the back side of the robot in accordance with the project standards. A hole of appropriate diameter will allow friction hold of the laser.

Getting distance from IR LED

This week we also implemented a bespoke distance sensor using the components we were already using for the direction sensor. We expected the intensity of the LED to be inversely proportional to the square of the distance. We used this relation and calibrated the sensor and were able to get distance information with an acceptable error range.

Robot Maneuvers

As most of the physical side of the robot is now nearing completion, we started to implement the maneuvers that the robot needs to perform such as leaving the convoy. The robot will perform this action in three steps. First the robot will move laterally away from the convoy. Then it will slow down with respect to the convoy. Finally it will reintegrate itself with the rest of the convoy. This week we were successfully able to implement the lateral exit part of the leaving maneuver.