

MTB – Multi Terrain Bot

MOTIVATION :

In today's world there's no bot that can travel over land, air and water . So basic desire is to create a bot which can travel on all types of terrain in spite of all obstacles in path. The driving force was the MH 370 which went missing

BROAD VISION :

To design a bot which travels on land, water and air . This Bot will be controlled by a remote controller. This project can be thought of as a prototype of a all-terrain vehicle or a unmanned robot vehicle which can go anywhere.

FINAL DEMONSTRATION :

A version of fully remote controlled bot that can travel over land, air and water.

WORK STRATEGY :

Step 1: Completion of paper work

Step 2: Getting accessories

Step 3: Fabrication of parts.

Step 4: Assembly

SKILLS INTENDED TO BE LEARNED :

Through this project we will learn remote communication and mechanics related to drone and Amphibian bot.

TIMELINE :

Week 1: 100 % completion of paper work and clearance of authenticity from mentors.

Week 2: Getting accessories and designing and completion of required electrical circuits. (both of bot and remote controller)

Week 3: Fabrication and construction of required components i.e. bot parts and necessary coding to be done.

Week 4: Assembling and testing of bot.

Week 5: Debugging of bot

COMPONENTS REQUIRED :

- (i) 4 High RPM motors.
- (ii) 4 servo motors
- (iii) Li-po battery
- (iv) Basic electronics components.
- (v) Basic mechanical components and accessibility to 3-D printer.

COST ESTIMATED :

Not more than 15k.

DATA COLLECTION :

Land vehicle
Air vehicle
Water vehicle

- Construction
- Dimensions
- Electronics ckt.
- Materials
- Softwares
- Working

TEAM DETAILS :

Member 1 : *Ayush Agrawal*

14D070042

8290455500

Member 2: *Saurabh Garg*

140070003

7666412651

Member 3: *Debarnab Mitra*

140070037

Member 4: *Jagesh Golwala*

14D070005