

TEAM NAME: 4 FAST 4 FURIOUS

PROJECT NAME: ALL TERRAIN HEXAPOD

TEAM MEMBERS:

Ankush Mukherjee

Tanmay Bhoite

Amul Kumar

Saksham Hooda

MOTIVATION: We are making a 6 wheeled remote controlled all terrain bot using rocker bogie mechanism. We will learn mechanical aspects of all terrain bot. We will get an opportunity to improve our software proficiency as we will use Matlab Solidworks etc. We desire to design a bot on our own.

BROAD VISION: Such bots of larger size can be used for unmanned exploration purposes.

DEMONSTRATION: Our bot will be able to traverse various terrains and cross obstacles of height 1 foot.

COMPONENTS REQUIRED :

- Motors (20-50 rpm) (6)
- 5 mm aluminium plates
- stainless steel plates/blocks

- ball bearings
- L-clamps
- Lock nuts
- allen bolt
- differential steering
- circuit board
- wheels
- batteries

TIMELINE:

- Day 1-10 –Designing and improving software proficiency .
- Day 11-18–arranging materials
- Day 19-23 – mechanical construction
- Day 24-26 –circuit integration
- test drive 1
- 1 week- design change and improvement
- 1 week – 2nd iteration

SKILLS:

We will learn softwares such as Matlab, Solidworks. We will improve our mechanical skills .

Workshop requirement : solidworks ,matlab

Estimated cost : Rs 7000-8000