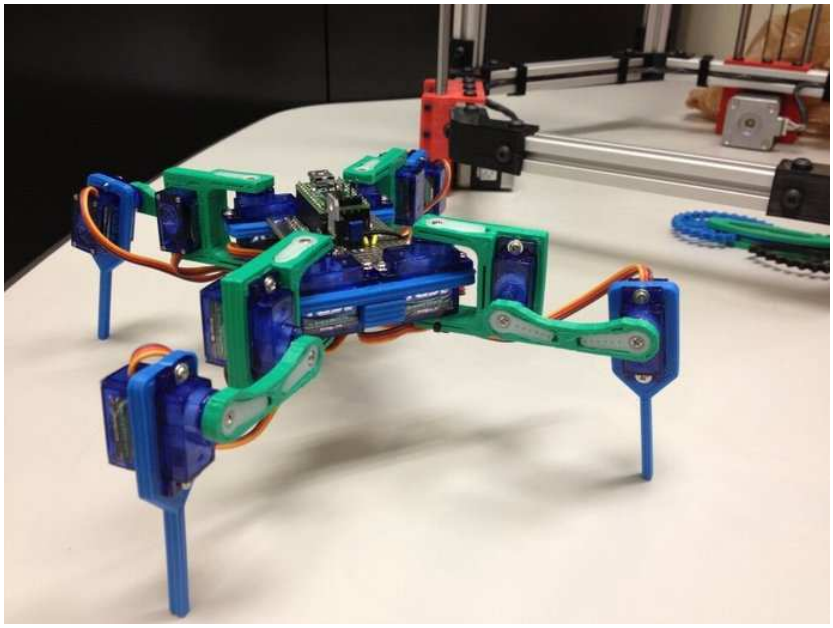
LEGGED ROBOTICS



This project aims at building a robot having legs that can walk like an animal. Features such as obstacle detection and tracking a specified object are to be implemented.

Why do we need such a device?

These robots are capable of detecting the surroundings and autonomously tracking the target. They can also be controlled via a remote.

What will we do in this project?

1) Design the robot
2) Buy the required materials for the body of the robot
3) Build the circuit that drives the servo motors of the legs and the microcontroller
4) Make the legs and body of the robot
5) Program the microcontroller to control the movement of the robot

6) Add additional features

Goal for ITSP:

Make a prototype of four legged robot that can be controlled through remote and can be extended to be made autonomous and adding features such as determining and avoiding obstacles.

Team composition:

- Anurag
- Sai Priyatham
- Tamil Arasu.

Components Required:

- Servo motors
- Microcontroller
- Battery
- 7805 ICs + 7806 ICs + 7809 ICs
- General purpose PCB
- Acrylic sheets
- L293D
- connectors and jumper wires + switch
- berg strips, screws, bolts, nuts

Additional features:

- ✓ Obstacle detection
- ✓ Follow a particular target
- ✓ Make the robot autonomous by taking input from a camera either onboard or from outside sources