

Team Name: Invincibles

Project name: Monkey bot

Project:

Our project is to make a pole climbing robot which can climb over pole with bends. It is inspired by the technique used by monkey to climb a tree!

This type of pole climbing robot can be used for many applications in real life like military operations, fire fighting operations, repairing electric poles, spying purposes etc.

Components used and approximate cost:

1. 3 electric motors with adequate torque capacity
2. Spring loaded clamping & declamping arrangement
3. 2 Rotary links
4. Bent pole
5. Arduino
6. Battery pack
7. Wireless Communication device

Total estimated cost is Rs.10000

Objective:

Our main objective is to make a robot which can climb over poles with bends. Initially, it will be controlled by hard wired manual operation. Our second objective would be to have programmable remote controlled operation.

Reference link:

https://www.youtube.com/watch?v=xSI7FsriMy4&feature=youtube_gdata

Plan Of Action :

Week 1: (May 4th - May 10th)

- Decide working mechanism of the monkey bot.
- Study and select motor type / rating.
- Make a List of Mechanical and Electrical Components.

Week 2: (May 11th - May 17th)

- Procure Electrical and Mechanical components
- start Bot fabrication.

Week 3: (May 18th - May 24th)

- Assemble mechanical structure and electrical wiring.
- Simultaneously study wireless communication device.
- Decide on battery pack and other electronic parts requirement.

Week 4: (May 25th - May 31st)

- First tryout horizontal motion of bot .
- Add vertical climbing motion of bot with bend.
- procure electronic parts for remote control operation.

Week 5: (June 1st - June 7th)

- Test bot with remote control.
- Fine tune all settings for smooth working of the bot .

June 16th:

- Demonstrate the MONKEY BOT.

