STAIR CLIMBING BOT

TEAM MEMBERS

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OBJECTIVE

The project is to make a RC bot which travels on the ground and also be able to lift itself through the stairs. The bot will be designed for a particular step height and a minimum width.

MOTIVATION

The principle involved in the bot can be used as a replica of wheel chairs which can also lift people through the stairs.

The motivation link: https://www.youtube.com/watch?v=VshSCYL7BrQ

WHAT WE MIGHT NEED

Advanced solid works workshop

Embedded coding workshop

Workshop on gears

MATERIAL

We might need 3d printing to design some specific parts of the bot

Wheels of different diameters

Servo motors

Sensors

Battery

Bread boards

Rods

Gears (we might need 3d printing)

Misc. material

Total estimated cost – Rs 10,000/-

TIMELINE

WEEK 1:

Learning and designing the assembly of the bot in solid works

WEEK 2:

Purchasing the required material – 2 days

Getting the parts printed in 3d printing if they are unavailable

Learning embedded coding the next few days

WEEK 3:

Writing the embedded code which is required for the bot – 5 days

Beginning the assembly of the bot.

WEEK 4:

Continuing the assembly and testing.

WEEK 5:

Debugging and improvising (if possible) the bot