DRISHTI

A Revolutionary Concept

Antigravity

Problem Statement: Design a mechanism such that it can lift 1 kg weight having dimensions 50*50*50 mm to a minimum height of 75 mm from the height of the chassis with the use of a single 12V battery.

The participating team has to send a report answering all the questions mentioned below:

- Provide snapshots of the CAD model of the initial and final position (lifted condition).
- Explain the mechanism used in brief and why one has used a particular mechanism
- Explain the construction and working of the mechanism, along with the list of components used.
- Calculations.
- The teams have to share their respective CAD files on ONSHAPE to u18me066@med.svnit.ac.in along with submitting the report on the google form for the same.

Constraints are as follows:

- The bot must fit inside a 300*300*300 mm box in the initial condition (Including chassis and wheels).
- The mechanism must be mounted on a chassis that is coupled with four wheels.
- The Material used for the chassis must be plywood.

Note:

The object will be placed in the chassis plane, and the height of the lifted weight will be measured from that plane.

The team that will displace the weight to the maximum height (minimum height 75mm) will get points accordingly.

- The calculations must contain the torque required by the motor to lift, the dimensions of links.
- A team can have 3-5 members.
- A person can participate in any of the four events but not in two different teams of the same event.
- The report must not exceed four pages, including the snapshots of the design.
- The points will be marked according to the height achieved, creativity, answers given for the questions.
- Jury's decision will be considered final.