

LAND ROVER

In our endeavour we are trying to build a small remote controlled land rover which has the ability to propel itself anywhere irrespective of the type of terrain on which it moves. In our basic model our rover will be having a digital camera which can broadcast the live footage of the area.

Our main motivation behind the rover project is its utility in the petroleum exploration and drilling sector. As during explorations it is very costly for a team of geoscientists to inspect the site again and again but with the help of rovers we can explore various sites which is more economic and more importantly a continuous data can be extracted. Its efficiency can be increased by adding on more sensors according to the data needed from the inspected site like temperature & humidity sensors.

For our project, the parts required are as follows.

1. A programmable ARDUINO circuit board
2. 6 12-VOLTS DC motors
3. An ARDUINO compatible camera and image sensor
4. Rechargeable battery
5. Connecting wires
6. Nut and bolts of various sizes
7. 3 pairs of wheels (rubber grip)
8. PVC pipes and elbow joints

Our future plans for the project comprises of enhanced vehicle stability and size contraction along with various additional sensors like well depth sensor, temperature sensor, magnetic sensor for oil and natural gas, ultrasonic distance sensor.