

## **ABSTRACT**

*Rover robot is a vehicle that can move automatically using a remote control based on an Android application. In order to make it easier for users to carry out documentation or research in difficult terrain.*

*In this final project, the writer implements the mechanical design of the rover robot. The rover robot body will use a passive suspension made of PVC pipe, because PVC pipe has strong characteristics, has an outer diameter of 32mm and the weight of the PVC pipe has a load of 1.1kg so that the robot can run stably in all terrain it will pass.*

*The results of this final project research are testing the speed of the rover robot without passing obstacles over a distance of 2 meters with a travel time of 5 seconds. Testing the speed of the rover robot through obstacles with a maximum height of 11 CM placed at a distance of 100 CM covering a distance of 2 meters with a travel time of 25.6 seconds. The road straightness test of the rover robot without passing obstacles covers a distance of 2 meters with a travel time of 5 seconds and a deviation distance of 4 CM. The road straightness test of the rover robot passes a maximum height barrier of 11CM which is placed at a distance of 100 CM covering a distance of 2 meters with a travel time of 25.6 seconds and a deviation distance of 17CM. Testing of right and left turns on the rover robot when the robot turns right with a travel time of 11 seconds and a deviation of 2 CM, when the robot turns left it takes 5 seconds with a deviation of 3 CM.*

*Keyword : Design Rocker Bogie, Rocker Bogie, Stair Climbing on robot rocker bogie*