

FABRICATION OF RAIL ROBOT

A FINAL YEAR PROJECT REPORT SUBMITTED IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD
OF THE DEGREE OF
BACHELOR OF TECHNOLOGY
IN
MECHANICAL ENGINEERING

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CERTIFICATE

This to certify that project work entitled “ **FABRICATION OF RAIL ROBOT** ” is the bonafied work of final year Department of Mechanical Engineering. Along with his teammates **P.JAGADEESH (16815A0334)** , **B.S.RAVINDRA VARMA (16815A0335)** , **S.VARA PRASAD RAO (15811A03C3)** , **V.RAMU (158113D7)** submitted in partial fulfillment of the requirements for the award of bachelor of technology in mechanical engineering by the Jawaharlal Nehru Technical University Kakinada, Andhra Pradesh during academic year 2018-2019.

(PROJECT GUIDE)

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ABSTRACT

India has one of the world's largest railway networks, manual Inspection and detecting a crack on these railways tracks is very tedious process and consumes lot of time and human resource. The Project aims in designing railway track crack detection autonomous vehicle using Motors, IR obstacle Sensors assembly system, which detects the cracks along its path; and also to clean the plastic waste along the path of the railway track with the help of the robotic arm which is controlled by the usage of worm and spur gears. The vehicle is powered with the help of Lead Acid battery assembly .The vehicle moves along the path of railway track with help of four motors each attached to each wheel and IR Obstacle sensors mounted on the vehicle front end will inspect the track along the path. When any crack or deformation is detected on the track the vehicle stops and the location of the crack is identified. Also the vaccum chamber in the back can clean the waste on the track .With this prototype we are showcasing the possibility in ease of flaw identification. The investment for the inspector , and the vehicle which can be implemented by Indian railways can be optimized with our report.