

(54) Title of the invention : Mobile and Voice Controlled Robot using Rocker Bogies Mechanism

<p>(51) International classification :B25J0009160000, G10L0015220000, B62D0057020000, B62D0055065000, (86) International Application No :B64G0001160000 Filing Date :PCT// (87) International Publication No :01/01/1900 (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)St. Martin's Engineering College Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mr. G. Poshamallu Assistant Professor, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 2)Mr. K. Suresh Assistant Professor, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 3)K. Surya Prakash Reddy, Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 4)K. Shreyas Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 5)M. Surender ,Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 6)P. S. Karthik Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 7)A. Sai Nithish Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 8)D. Data prasad, Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 9)T. Shiva Prakash Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 10)B. Sathvika, Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 11)D. Vishnu Karthik, Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 12)N. Dheeraj Kumar, Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 13)M. Adarshreddy Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 14)G. DeekshithReddy Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 15)Raju Ayileni Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ----- 16)P. Venkata Satvik, Student, ECE Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p>
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(57) Abstract :

Rocker bogie mechanism-based robots have gained significant attention in recent years due to their unique ability to traverse rough terrains and obstacles with ease. The importance of such robots lies in their ability to operate in environments that are dangerous or inaccessible to humans, making them ideal for search and rescue missions, exploration, and military applications. The current industry requirement for such robots is growing as the need for efficient and effective ways to survey and explore remote or hazardous areas increases. The ability to control the robot via mobile and voice commands adds an extra level of convenience, allowing operators to easily navigate the robot through difficult terrain without the need for a direct line of sight. The proposed 6-wheel robot using a rocker bogie mechanism and mobile and voice control with the HC-05 and L293D motor shield of left and right BO motors is designed to be a low-cost, efficient solution for traversing difficult terrains. The robot is controlled via Bluetooth using an Android Smartphone or tablet, and voice commands can be used to control the direction and speed of the robot. The robot's ability to navigate difficult terrain and obstacles is demonstrated through a series of tests, showcasing its potential for various applications. The project highlights the potential of such robots for use in a wide range of industries and applications, including search and rescue, exploration, and military operations.

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