

Any Climb: A Wall Climbing Robot for Various Curvatures

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Abstract: *The main objective of the proposed work is to develop a wall climbing robot, which has the ability to perform various tasks. This can be performed by controlling the 6 DC motors through the microcontroller where 4 motors are for the legs while 2 are for vertical and horizontal movements which will be controlled through the assembly program written in Embedded C. In any sloped vertical plane, aerodynamic techniques are utilised to cling the robot to the plane. Also, this robot intends to have manual and automatic communication model. Manually it is done through a mobile app to which the microcontroller is connected through an ESP8266 Wi-Fi module. The alternate way to control the model is through the program code where the path as well as time is preset. This paper covers both the electrical and mechanical aspects of the project.*

Keywords: Embedded C, ESP8266 Wi-Fi module, Microcontroller

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