Department of Computer & Software Engineering

College of E&ME, NUST, Rawalpindi

Microcontroller and Microprocessor Based Design

Project Proposal

Title: NOMADS

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Abstract— The main aim of this project is to construct a remote-controlled vehicle using a microcontroller (ESP32). A smartphone will be used to control the movement of the vehicle. Tilting the phone will move the vehicle in the corresponding direction. This can be achieved using the smartphone's built-in gyroscope. The vehicle will be equipped with 4 motors and 4 fixed wheels, and a motor controller will be used to control the speeds of said motors. To provide an interface to the user, we'll be using an application called Blynk IoT. This will provide the user with ability to control the vehicle as well as receive feedback from it regarding any collision or possible collision. The vehicle will be equipped with proximity sensors to prevent the vehicle from any collisions from nearby objects. To power the automobile and the microcontroller, rechargeable batteries will be used.