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Smartphone Controlled Robot Car Using IOT

Abstract:

Smartphone Control is the use of various android/iOS system for operating any equipment or device such as cloud controlled toy car, 360° movable surveillance camera and other useful cloud movement control applications with minimal or reduced human interventions. This project proposes a design and implementation of a smartphone controlled car using Wi-Fi technology over the cloud through any smartphone.

For completion of this project, wireless software and hardware technologies will be used, such as Blynk Cloud app for user control, NodeMCU ESP8266 for transceiver(transmitter and receiver)+microcontroller, an L298A Motor Drive for motor controller, and two electric DC BO motors to move the automobile along with batteries. The controlled car can move in any direction as per the user's choice from around the world. However, the performance depends on the internet signal strength where the maximum testing range is unlimited from the user's location as long as the whole system is connected to the internet.

Two objectives of this project is to expand the limitation range from close range Bluetooth and Wi-Fi Technology to a wide range Cloud Control Technology and also to create a ubiquitous technology for automobile that operates in daily life with a control system.

Hardware Requirement:

- NodeMCU ESP8266
- LED
- Bread Board
- L298A Motor Drive
- Car Chassis
- BO Motor
- Batteries

Software Requirement:

- Arduino IDE
- Blynk Cloud