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Wireless Dc Motor Speed and Direction Control using Bluetooth

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Abstract: This article implemented an Android application-based speed and direction control of DC motor using Bluetooth module. This setup consists of two basic primary elements communicating with each other: i) Bluetooth of smartphone which is connected to the Arduino microcontroller, IC and DC Motor interfaced with a L293D motor driver IC and ii) a Bluetooth module HC-05. The android application in smartphone sends/receives data to/from the microcontroller using the Bluetooth. An android application in the smartphone acts as a display panel for the user to send/receive/view the output and input of the DC motor. The display includes a screen showing the commands and responses against each other. The motor can be rotated 0-360 degrees and can even change its direction from left to right until stopped. Thus, this proposed control methodology is applied to control speed and direction of DC motor wirelessly.

Keywords: Arduino, DC motor, TRIAC, Android layout, LCD

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