

Radar Based Security System Using Arduino

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Abstract: *The application of radio detection and ranging in different places such as military installation, commercial use is done with the help of Radar Based Security System which uses electromagnetic waves for detection of different physical components such as distance, speed, position, range, in field of navigation. In this work, it is proposed an Arduino based Radar system, after thorough study of existing systems. This work has advantage over other radar- based systems as it reduces power consumption. The system consist a basic ultrasonic sensor placed upon a servo motor which rotates at a certain angle and speed. This Ultrasonic sensor is connected to Arduino digital input output pins and servomotor also connected to digital input output pins. It has an Extension of detecting the objects in 3 ranges: in 0°-6° range if unwanted person is detected Bob motor is used to alert. In 60°-120° range DC motor and 120°-180° Buzzer are used to attack the unwanted person.*

Keywords: Embedded system, Radar Based Security System, Ultrasonic sensor, Arduino.

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