CAR PARKING GUIDE SYSTEM WITH ANDROID BASED SOUND USING ULTRASONIC SENSORS AND ARDUINO

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Abstract

The Android-based parking guide system is a parking system that can be used by the driver of the car as a guide tool with the aim that the application can help reverse parking perfectly. This parking guide application is made for cars that do not yet have parking sensor features. Parking guide application is made using Java and C programming language with software used by Android Studio and arduino IDE software. The implementation of this parking guide application is directly installed in a car that does not have a sensor. Some of the tests performed on the parking guide application are testing on different devices (different smartphones) the parking guide application can run on each device (6 smartphones). Testing the connection time with the condition of the open and closed windshield produces a difference in the connection time, the connection time with the windshield is open faster than the closed car glass. Tests with different time sensors still work during the day and night and can still detect the distance of the object. Testing with corner objects, sensors sometimes detect objects. The sensor does not detect the parking limit because the size of the parking limit is shorter than the sensor. In the user test using the average Likert scale the results obtained were 74.84%

Keywords: *System parking, Android, Ultrasonic, Arduino UNO*