

TITLE : Development of the Robot Positioning with Radio Frequency
Identification Connected by the Bluetooth

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ABSTRACT

This research is to study and develop a mobile robot with wheels and RFID systems can be applied to identify the location of the robot on a journey to the target area as well as to send data via Bluetooth from a robot to a laptop computer to display on the program as designed. All functions of the robot is controlled by Arduino which receives input from the ultrasonic sensor to detect obstacles at the same time detect the arrival of the signal from the RFID tags which can be installed on the number four spot on the field test. Subsequently Arduino processes to compare the values obtained with the data in memory and then send the data to the Bluetooth module to display the program was built a consecutive appearance in real-time.

The result of this research and development of the robot positioning with RFID connected by the Bluetooth while the robot is moving shows that it can read RFID tags on every tag and send data via Bluetooth to display correctly. In this test, the test of the entire two rounds of the field test but the average time per round is slightly different about 1 second which can be considered a very similar. So the overall operation of the robot can work according to defined objectives.

Keywords: RFID, the robot positioning, Arduino