

Dedication

I have pleasure in acknowledging the patience, support, and encouragement of my Family and friends during all this time.

Acknowledgments

The success and final outcome of this research required a lot of guidance and assistance from many people and I am extremely privileged to have got this all along the completion of my project all that I have done is only due to such supervision and assistance and I would not forget to thank them.

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At last I would forget my friends for their encouragement us.

Abstract

This research aims to design electronic circuit to control a robot via bluetooth using android mobile phone. This system used the Arduino board and processed development environment designed an electronic circuit, it consists of transmitter and receiver. Transmitter is a mobile phone and the receiver is a bluetooth client HC-05. If wanted to send or receive data between Arduino and mobile phone, first needed to make a communication link to definition Arduino board to the mobile phone, connected Tx pin to Rx pin and Rx to Tx. Transmit and receive refer to each device. This designed used Android application called “BlueArd” used to control, when pressed Left key on “BlueArd” the motor1 move and motor2 stop (the robot turn left) and when pressed right key the motor2 move and motor1 stop (the robot turn right) and when pressed Go key motor1 and motor2 move forward direction (the robot moved forward) and when pressed Reverse key motor1 and motor2 move reverse direction (the robot moved reverse) and when we press Stop key motor1 and motor2 stop (the robot not moves).

المستخلص

يهدف هذا البحث لتصميم دائرة إلكترونية للتحكم في إنسان آلي باستخدام الموبايل. استخدم في هذا النظام لوحة اوردينيو ووحدات معالجة متطورة حيث صممت دائرة إلكترونية تتكون من نظام ارسال ونظام استقبال حيث كان المرسل هو الهاتف الجوال والمستقبل هو بلوتوث من النوع (HC-05) متصل مع لوحة الاوردينيو. لتبادل البيانات بين الاوردينيو والهاتف الجوال قمنا بتوصيل نقطة الارسال (Rx) من البلوتوث إلى نقطة الاستقبال (Tx) في الاوردينيو وتوصيل نقطة ال Rx من الاوردينيو إلى Tx في البلوتوث وتم بذلك تبادل البيانات .

استخدم برنامج "BlueArd" الذي يستخدم مع تطبيقات الاندرويد للتحكم في النظام ، فعند الضغط علي مفتاح اليسار في التطبيق يتحرك الموتور الذي في جهة اليسار فقط (الانسان الالي يتحرك يسارا) وعند الضغط علي مفتاح اليمين في التطبيق يتحرك الموتور الذي في جهة اليمين فقط (الانسان الالي يتحرك يمينا) وعند الضغط علي مفتاح التقدم للامام يتحرك الموتوران في اتجاه الامام (الانسان الالي يتحرك اماما) وعند الضغط علي مفتاح التقدم للخلف يتحرك الموتوران في اتجاه الخلف (الانسان الالي يتحرك للخلف)، وعند الضغط علي مفتاح التوقف لا يتحرك الموتوران (الانسان الالي يتوقف عن الحركة).

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