العنوان: مشروع رافعة مع اردوينو والتحكم به عن بعد

Title: A crane project with Arduino and controlled remotely

A Araduate project submitted to the department of Information Networks of the College of Information Technology, University of Babylon, in partial Fulfillment of the Requirements for the Bacherlor's degree in the Information Network of Information Technology

اشراف :

م.م علا علي

الطالب:

حسين مانع عبدظاهر الوطيفي

2023-2024

Conclusion

This project demonstrates remote control of machines, machines, or machines for other uses, and this is one of the achievements that saves time and safety in some hard-to-reach places. We discussed in general the beginnings of the Arduino, which is considered the brain and controller, the basis for the rest of the components, works, and achievements it has achieved in technological progress. Where the Arduino can receive input signals from various sensors and inputs. In addition, this project addressed the problems of danger in

environments in which work is difficult and provided the opportunity

for people with special needs who do not have the ability to move from one place to another. The purpose of using remote control devices is to provide a wireless means, whether to update software or control devices via the Internet. We can now explain each of these components and the function it performs according to the type of component, features, and characteristics of each part. Starting with the Arduino, which contains the brain of the projector, which is the microcontroller, and the inputs and outputs it contains, then we explained the basis of the work that converts energy and data into movement, according to the command directed to it by the microcontroller. In addition, every electrical circuit must contain resistors to control voltages, and to connect these parts together in one circuit and control it, we connect them to the board. In the beginning, we were interested in controlling the machine with the joystick. The remote control is one of the parts of the remote control, such as wifi or the Bluetooth model. Then we build the structure and place each part in the appropriate place. Then the other part is programming the Arduino code, which is written in the Arduino IDE and then uploaded to the microcontroller via the USP. Then it was controlled remotely by an Android program and was integrated with it after pairing the machine's control unit with the user's control unit.