

ABSTRACT

Remote control of electrical appliances has become an integral part of modern life. With the development of wireless technology and the Internet of Things (IoT), the ability to control electrical equipment remotely using the Arduino Nano-based Arduino Bluetooth Controller application. This system consists of two main components: the Arduino Nano as the controller unit and the Arduino Bluetooth Controller application installed on a mobile device, such as a smartphone or tablet. Arduino Nano acts as a bridge between the application and the electrical equipment to be controlled. The integrated Bluetooth module on the Arduino Nano enables wireless communication with control applications. The Arduino Bluetooth Controller application provides an intuitive user interface for controlling electrical equipment. Users can connect the device to the Arduino Nano via Bluetooth and perform control operations such as turning on/off, adjusting the brightness level, or adjusting the temperature, depending on the type of equipment being controlled. Control signals are sent from the application to the Arduino nano via a Bluetooth connection, and the Arduino Nano interprets these signals into commands that electrical equipment can understand. In this development, we will examine the system's ability to control various types of electrical equipment, from lights to fans. We will also evaluate the responsiveness and controllability of the system in executing control commands from the application. It is hoped that this system will provide an easy-to-use and efficient solution for controlling electrical equipment remotely via an Arduino Bluetooth Controller based application.

Keywords: Remote control, Arduino Nano, Bluetooth, Arduino Bluetooth Controller Application, Electrical Equipment, Internet of Things (IoT).