

SUMMARY

In conclusion, from the last project, which was for a course project, I did an Arduino based project to detect a device via its current parameter. However, this project focuses on detecting various range of devices in realtime using the ACS712 (30A module) model, and the Arduino Uno came handy for this. The parameter and purpose of use were fit for the scope of this project, and the device was also available at the time of this project. This sensor was interphase with the Arduino after a series connection with the power source, multimeter, and the load based on the diagram in figure 6.1. The sequence of connection was a series type, and the signals generated from the current sensor to the Arduino were converted to voltage and then to the RMS.

Also, some devices are not pure sine waves; therefore, their TrueRMS were required. This TrueRMS was gotten by taking multiple slope calculations from different points on the waveform and calibrated to meet the standard TrueRMS. This result of TrueRMS of the device used to determine the device connected at the power source.

We used Arduino because it is an open-source microcontroller and easy to get.

The benefit of this project is to help the user determine the rate of power consumption. Help parent monitor their kids in case of a bridge of instruction on what device to be plugged. The decision on appliance segmentation on the home front is possible with this project.

I will propose a further project to determine an unlimited amount of device and also to control this switch on and off from a remote location.