

## **ABSTRACT**

In a lecture activities that exist in this Telecommunication Engineering D3 course, one of them there are practice activities. To support practice activities required equipment or learning media that can help the lecturers and students to facilitate teaching and learning activities, especially practice activities. The problems that exist here go to the Microcontroller Application course. This is caused by the number of students who do not understand the sensor functions found in Arduino.

In order for students to know the various functions and types of sensors that exist in the Arduino, then in this Final Project is made a Module/Practice KIT in which there are various types of sensors that exist in Arduino such as Light Sensor, Encoder, Temperature Sensor, Water Flow Sensor, Flame Sensor, Humidity Sensor, Proximity Sensor, Gas Sensor, and Accelerometer. The sensor will be connected to the Microcontroller device.

This final project is a Microcontroller practice KIT with length of 36 cm, width 24 cm, and height 6,5 cm which there are kinds of sensors at Arduino, with result of each sensor output is found on PC and LCD 16 x 2 . This Arduino Sensor KIT has the level of functionality and accuracy reaches 90% to facilitate teaching and learning activities, especially practice activities in Microcontroller Application course.

Keywords: Arduino, Sensor