

Abstract

Clay moisture expresses the amount of water in the material. Clay that is dry or too moist yield failure in manufacturing earthenware. Therefore, we developed an Internet of Things (IoT) device that can detect the level of moisture in the clay. The device consists of clay moisture sensor, Liquid Crystal Display (LCD), Arduino Nano, and Relay Module. The condition of the clay can be seen on the LCD which is installed and connected to the tool. To evaluate the developed system, we conducted an experiment to observe the humidity of two different clay materials where one of them is mixed with additional water for 10 hours. The device is shown to be able to display the difference of the materials. The device is also able to determine the dry or wet status of the material. Once the material is detected to be dry, the device will pour water to the material. The developed device is able to aid craftsmen to maintain the quality of the clay for their crafts.

Keywords—measurement, clay, moisture