Earthworms of the type Lumbricus Rubellius can be cultivated as bird food, fish and cosmetic ingredients. Earthworms require cocopeat media as a place for worm development. Cocopeat is a medium for cultivating earthworms made from coconut fibers. Often times, earthworm cultivation has problems controlling humidity in cocopeat media. The humidity of the cocopeat medium greatly affects the growth of earthworms. Therefore we need a tool to do the watering automatically and can monitor the humidity control of cocopeat media via android.

In designing a tool for automatic watering and monitoring the humidity of the cocopeat media in the worm cage, it was carried out using a NodeMCU ESP 32 microcontroller, the humidity sensor used consisted of 5 YL-69 soil moisture sensors found at each corner of the worm cage to determine the humidity in the cocopeat media. The concept of internet of things on the moisture control of cocopeat media in this worm cage can monitor the humidity of the cocopeat media and do watering automatically based on the predetermined humidity of the cocopeat media. From the results of the moisture reading on the soil analyzer tester, the moisture meter got a value of 45.00% with the ratio of the soil moisture sensor YL-69 getting an average humidity value of 42.72% on testing using dry cocopeat media having a difference in value of 2.28%. Furthermore, from the results of the moisture reading on the soil analyzer tester, the moisture meter got a value of 70.00% with the ratio of the soil moisture sensor YL-69 got an average humidity value of 69.75% on testing using damp cocopeat media having a difference in value of 0.25%.

**Keywords:** Internet Of Things, NodeMCU ESP 32, YL-69 Soil Moisture Sensor, Platform Blynk, Worms Lumbricus Rubellius