***ABSTRACT***

*Organic fertilizers are fertilizers that are very beneficial for the fields, currently more are using chemical fertilizers because they are starting to be abandoned by farmers. Chemical fertilizers can damage soil fertility, therefore the use of chemical fertilizers is not recommended. The use of manure can meet the needs of plants so that it can have a good impact on plants. People are still unfamiliar with the knowledge of maximizing the manufacture of solid manure, where the temperature should not be too hot and too cold, and the humidity of the room is also considered to maintain microorganisms. the recommended temperature is at 28-30 oC, and has a humidity value of 40-60%. This makes researchers want to design a system using ESP32 programmed using the Arduino application, which can monitor and control which is useful for maximizing the manufacture of solid manure. Researchers used the* DS18B20 *sensor to detect room temperature in the fertilizer storage area, and YL-69 as a sensor to detect the humidity of the fertilizer itself. This study obtained the results of the YL-69 sensor error calibration of 0.96%, and the* DS18B20 *sensor error of 1.09%. This value can be said to be good and the sensor is functioning normally because the tolerance value is below 5%. The next test is QoS testing, for parameter delay of 372,639 ms, throughput of 199,367 bps, and packet loss of 0%.*

***Keywords*** *:* DS18B20*,YL69,IoT,Manure,ESP 32*