My idea is: "One Raspberry Pi will be the head or master node that will be placed in the agricultural field, and all its slave nodes will be placed in randomized locations of the field. Each slave node is an ESP32 and consists of one soil moisture sensor and one sprinkler. The Raspberry Pi will act as a server for a webpage where the landowner can check the status (this is a decentralized technique). The master node and slave nodes are connected through a LoRa module. Each slave node will get the soil moisture value every 5 minutes and send it to the Raspberry Pi. The Raspberry Pi will update it on the webpage, and if the soil moisture is less than a specific value, the ESP32 will open the sprinkler and will close the sprinkler only when the moisture is more than the threshold value."

The limitations I broke in the old methods are:

1. Connection range using LoRaWAN.

2. Cutting off third-party data-transmitting corporates like ThingSpeak, which ensures privacy.

3. As it works on a decentralized server for the webpage, no common web server needs to be rented. The Raspberry Pi itself will act as a web server and host, so each landowner will have their own website, their own page, and enhanced privacy.