

ABSTRACT

The development of a country will certainly require an increasing number of food suppliers. However, these developments are accompanied by various problems that occur in the agricultural sector. According to Nurchamidah and Djauhari, a lot of agricultural land has been converted into other sector land, recorded annually more than 4000 hectares of agricultural land is reduced in order to build industrial areas, housing, roads along with other facilities and infrastructure. Coupled with the process of urbanization which resulted in a reduction in the number of farmers in Indonesia with a decreasing ratio of 0.7 million residents each year. Based on these problems, an idea and idea emerged to develop a technology supporting the agricultural sector that would facilitate access and the process of farming called a Farmbot. Farmbot can make it easier for the community to grow crops without needing large tracts of land and can operate automatically with the help of IoT, by inputting a schedule for when the farmbot should water, the plants will be easily maintained. Currently the Farmbot operating system still uses computer devices, with the increase in smartphone users, especially in Indonesia, it will certainly be more practical if the Farmbot scheduling system can be done using smartphone. The application can then be integrated using IoT with the help of Firebase which enables data transfer in real time to improve the way of user communicate with farmbot to set any schedule event to do watering automatically.

Keyword: User Interface, Internet of Things, Farmbot, Firebase, Realtime Database, User Centered Design.