

## ABSTRACT

Rice is one of the most important food ingredients in Indonesia. The main factor in the decline in the amount of rice production is the attack of bird pests. Bird pests are more dangerous than other pests because they attack in groups once. The most common method used by farmers to repel bird pests is by scaring them with a scarecrow. This method is still less effective because it cannot operate for a long time so it is less efficient to use.

In this research will be designed a smart drone equipped with sensors and Internet of Things (IoT) to control rice fields attacked by flocks of birds and monitor the condition of rice plants. Smart drone it also aims to assist farmers in their efforts to drive away flocks of birds that attack crops.

With reference to the results of the research conducted, *Drone* has dimensions of 58 cm in length and width, 36 cm in height, and 1.682 g in weight. *Drone* uses a Li-Po 6300 mAH battery power supply and can be airborne for 6 minutes with a distance of 5 meters and a height of 5 meters. Drone able to fly stably based on values from a group of several sensors found on flight controller.

**Keywords:** Smartdrone, Internet of Things, Birds Attack