

ABSTRACT

Pests are one of the main enemies of rice farmers who can attack the plants at any time. One of the pests that often troubles rice farmers is bird pests. Bird pests usually strike before the harvest. There are several ways that farmers usually do to prevent bird pest attacks against rice. The way is by using a scarecrow. Activity to dispel the birds must be done for about a month, which starts at the time of rice began to contain until the harvest.

One simple solution is to create a bird-motion sensor packed in a scarecrow with the output of movement or sound so that the birds will automatically go away from the field.

This equipment uses PIR sensors and uses sound and motion as an output. PIR sensors serve as a bird's presence detector. PIR sensors will produce frequencies generally 40kHz. This tool will fire PIR waves against other objects that are inserted PIR sensors as well. If the wave is obstructed by the object and reflected back so caught by the sensor. The sensor will signal to Arduino. Then the arduino will run the output and drive system.

From the research that has been done, it can be concluded that PIR sensor can detect the existence of the pest in some conditions, for example is because of its short distance and the movement which is not really fast to detect. The maximum distance of the sensor is 7 meters. Other than that, sensor also can detect another moving creatures in front of it and its output can be scared by the pest.

Keywords: Pest, PIR, Arduino