ABSTRACT

In general, farmers in the rice fields carry out activities to guard the rice plants from morning to evening using the object of the scarecrow, by pulling a rope and ringing a bell that is done manually. An automation system is a substitute system for human labor that is replaced using technology in carrying out the activities being carried out. The application of the automation system is carried out to facilitate work, especially in assisting farmers in moving the scarecrow or protecting rice plants. The object to be automated is a scarecrow. The scarecrow automation system is an Arduino-based system designed using Passive Infra Red (PIR) sensors, Arduino Uno, Buzzer, Servo Motors, Mini Solar Panels, TP-4056 Module, USB DC Booster and Lithium batteries. This system can help farmers to move the scarecrow, repel bird pests and have solar panels as a source of energy. With this, Farmers do not have to do these activities manually.

Keywords: Automation, Arduino, Passive Infra Red, Servo Motor, Solar Cells.