

**GREENHOUSE SMART INSECT REPELLER
WITH SECURITY SYSTEM
PROJECT REPORT**

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ABSTRACT

Every farmer usually faced a problem on the damaging plantation by the insect. Thus using a pesticide to prevent the insect keeps damaging the plant is very effective in order to maintain the plant quality. But using a pesticide excessively would also give a negative effect to the biodiversity around them. This project presents a system for insect and greenhouse security system. This system consists of two features which are automatic sprayer and surveillance system which both work simultaneously. This system will be an alternative used to assist farmers on the greenhouse users in the agriculture sector. Services provided by this system are detecting the movement of the insect which will trigger a spray with pesticide to spurt and prevent the feed of the insect on the plant. The idea is that this system will ease the user to prevent from their plant been damaged by the unwanted insect automatically. In this project, this system consists of motion sensors, Raspberry Pi as a microcontroller, DC motor, and Pi Camera. A database will be developed for the user to monitor the usage of the pesticide and app that will notify the user if an intruder enters the greenhouse. In this project, the database will be recorded and the user will able to observe through website PHPMyAdmin. The user also will be notified by the sensor if there is an intruder. The system will send an email to the user with an attachment of the image captured by the Pi Camera. Throughout this research, the expected results are the user will able to control the attack of insects in the same time able to control the usage of the pesticide used and able to protect their greenhouse from being enter by an intruder.

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