

# Development of 650mm Unmanned Drone for Greenhouse.

- **Author(s):** Byeongdu Yim ,Minwoo Cheon
- **Abstract:** A unmanned drone was developed with a length of 650 mm and a height of 300 mm for the purpose of preventing pesticide poisoning in the greenhouse. A Flight Controller (FC) was used to control the drone and an Electronic Speed Controller (ESC) was used for stable motor control. Thrust and discharge tests showed a thrust of 1,331 at 90% of Pulse Width Modulation (PWM) capable of a combined flight. The drone could fly for more than 5 minutes. As a result of measuring the flight time of the drone, it took 5 minutes and 5 seconds to fly with a control liquid and 7 minutes and 15 seconds without a control liquid. Since it is expected that it will take about 100 seconds to control each greenhouse, the 650mm unmanned drone is expected to be used effectively in greenhouses to prevent pesticide poisoning.
- **Keywords:** Unmanned drone, Flight controller, Greenhouse, Pesticide control, Flight time