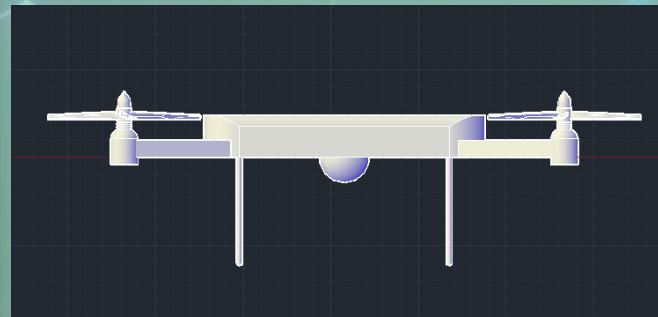
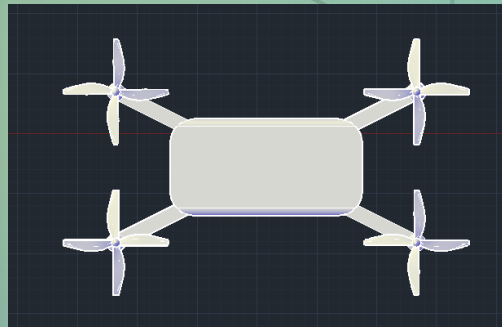


Supervise Drone		
Parts	Description	Items
Propellers	A fan propelling forward and backward carrying a drone flying in the sky.	4
Motor	Direct current (DC) is used to supply quick rotating power to the drone. It helps the drone able to travel from one location to another.	4
Turbofan		
Camera	With a capacity of 64 megapixels, it is capable of capturing photographs that are clean, well-lit, and of high quality. It also supports for high-resolution video that can take Full HD 1080p video.	1
Ultrasonic Transducer	It is the ultrasonic speaker for the drone to repel the animal that harm the plants.	
Carbon Fiber-reinforced polymers	CFRP is used for entire body of the drone. It has a long service lifetime when protected from the sun. The advantages of this material are light weight and increased strength. Those advantages help the drone easily to fly and can extend the time usage since it consumes less power battery.	1
Polyvinyl chloride stand	PVC is used for the stand of the drones. It is extremely durable and lightweight so that can well support when the drone makes a landing in any type of surface.	2



Preliminary Design of Drone for Agriculture

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Introduction

Ultrasonic Drone is responsible to keep an eye on the crops for pests and birds threat. The drone is equipped with a camera for monitoring, ultrasonic sounds to deter birds, and a turbo motor that allows it to swiftly travel from one location to another. It also has an excellent propeller that allows it to monitor from a far height.

Mechanical Design

The mechanical parts required are composed of propellers, motor turbofan, camera, ultrasonic speaker, PVC stand and the drone body that make from Carbon Fiber-reinforced polymers.

Drone Application

Among the tasks of the Supervise Drone is to monitor the crops. Ultrasonic waves will be produced to deter animals such as insects. The drone will be also will be used to detect and gathered relevant data to analyze for planning an effective management and control of crops.

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