

# **CHAPTER I**

## **INTRODUCTION**

### **1.1 Background**

Indonesia is a country that has a tropical climate where there are only two seasons, namely dry and rainy which alternate every 6 months. Indonesia itself also has relatively fertile land so that it can be used for plantations, livestock, agriculture, and others. In Pasuruan, there are agricultural areas that are still quite extensive and most of them are still used for agriculture, precisely in the gendol area. Farmers in this area usually do not use any kind of aid for planting, harvesting,

The following are the objectives of this research: dispensing pesticides, etc., this still makes it difficult for farmers in terms of energy and time required. From this, why this blimp drone will help and make it easier for farmers during the period from tander to harvest to spread pesticides without the need for a lot of energy and time, which is done by going directly to the rice fields. It is enough to control the blimp drone via remote control to control and spread the pesticide. The Blimp drone will go to be controlled by directing it to the points that need to be spread by using a flight controller based on the pesticide. Then if there is a leak in the use of the blimp used on the balloon so that the helium capacity is reduced, the blimp drone will be assisted by the presence of a propeller.

### **1.2 Formulation of The Problem**

Then from the background that has been explained, there is a problem formulation as follows:

1. How to build a frame for placing balloons on the blimp drone ?
2. How much additional duration can be generated by adding blimp to the drone ?

### **1.3 Objectives and Benefit**

1. Design and build a frame for the blimp drone
2. find out how much additional time can be generated by adding balloons to the drone

### **1.4 Scope of Problem**

Limitation of the problem needed for research or this research can be directed and does not deviate from the topic under study. The following are the limitations of the problem:

1. Create a drone frame that does not affect the balance of the drone and with a weight that matches the lifting power of the blimp drone.

### **1.5 Research methods**

In research, structured methods are carried out which will then be worthy of being called research. As for the method used:

-Basic research

This section is carried out by studying existing tools and developing those tools to increase the function and effectiveness of these tools.