

ABSTRACT

The development of drones is rapidly increasing nowadays. From the start of the quadcopter drones that can be controlled manually for entertainment, nowadays drones can be used into a wide variation of tasks. But for the time being, the usability of drones is usually on the side of entertainment side.

As for the development right now, drones might be the answer in making our lives yet easier again. Thought the drones that are available widely right now is mostly manually controlled, the amount of autonomous drone is increasing as well.

The purpose of this research is to implement the haarcascade detection algorithm into a Ryze Tello drone to conclude the effectiveness of the program to be used in Ryze Tello drone. With the use of the facetracking algorithm that was made by haarcascade, the program that will be made in this paper will be used for avoidance capabilities which will made the drone not only autonomous, it can also minimize the chances of casualties that may be caused by autonomous drones. The result of this thesis will determine the optimum speed that can be used by the drone to avoid the oncoming obstacles.