

ABSTRACT

With the development of UAV (Unmanned Aerial Vehicle) technology, especially in the field of surveillance as well as search and rescue have led us to the development of a quadcopter. By using a quadcopter or “Drone” it can go through difficult terrain by flying over them. And using a beacon, a drone can determine the location of a stranded victim faster than the search and rescue team, and the drone can bring medical supplies to the stranded victim to help them survive until the search and rescue team arrive.

In this project, a quadcopter is designed for navigating towards a wireless beacon using LoRa GPS. This beacon will send a signal message periodically. Then the drone will receive the signal to get the distance to the beacon and the coordinate where the beacon is located.

After the drone gets the coordinate, the drone can start searching and determine the rough estimate location of the beacon, giving the following assumptions apply: (1) the wireless sensor node (beacon) and the drone are in the same transmission range, (2) the drone transceiver is capable of receiving the coordinate location.

Keyword: *Beacon, LoRa GPS, Drone, Quadcopter UAV.*