DEVELOPMENT OF UAV MULTICOPTER AS A VEHICLE FOR TRANSPORTING DISASTER LOGISTICS

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The Aceh region, which is located on a fire route that contains volcanoes, was destroyed in 2004 by the shaking of the earthquake and tsunami. Until now, large and small earthquake vibrations still occur frequently. Some time ago Aceh was hit by a tectonic earthquake which destroyed buildings in Pidie Jaya area. Because the area affected by the earthquake was so extensive, so many places and locations that were badly affected by the earthquake were late to be known. The use of the Drone in monitoring the area and delivering logistics in the affected area should be given attention. The Aceh region has a mountainous area and a transformation path that is still limited in the deep areas causing delays to reinforcements. Unmanned aircraft systems (UAVs) which are usually widely used by the military, government, and commercial companies, are now widely used by the general public. But most drones only have a small carrying capacity and limited range. In this paper will be presented the design of a Drone with an integrated monitoring and assistance system using a moving (Ground Station) control center. The Quadcopter Drone will be used to monitor and record disaster-affected areas and send light equipment, medicines and food logistics. The drone will use a large capacity Brushless DC Motor Outrunner and be equipped with an ArduCopter control system from the APM 2.8 or PixHawk type, FPV camera and infrared camera. Thus the aircraft can fly far day and night and guided by GPS from satellites.
Aceh Earthquake and Tsunami
Palu Earthquake
Objective

The objective of this research is to Develop Multicopter UAV for Disaster Logistic Transportation

The drone will pick up and drop logistic from one start point to target point.
Drone Logistics Market

The market will be **ACCELERATING** growing at a **CAGR** of over **14%**

**INCREMENTAL GROWTH**

$1.2 bn

2017  2022

The year-over-year growth rate for **2018** is estimated at **5.21%**

The market is **HIGHLY FRAGMENTED** with quite a few players who occupy the market share

**64%** of the growth will come from the **AMERICAS**

One of the **KEY DRIVERS** for this market will be the high adoption of drones in healthcare and relief logistics

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Current Research

Boeing unveils drone capable of carrying 500-pound cargo

January 12, 2018 Brian Straight
High Torque Outrunner Motor

25KW 120100 Outrunner Brushless Motor for Electric Paramotors

Rp 28.750.000

Beli Sekarang

Cicilan bunga 0% mulai dari Rp 1.197.917

Bandingkan Cicilan

Estimasi ongkos kirim

Kecamatan

Kode Pos

Berat

Dukungan Pengiriman

Follow

Chat Penjualan
25KW 120100 Outrunner Brushless Motor for Electric Paramotors and Electric Go-karts with 22S 500A boat ESC

1) The firmware is upgraded recently
2) Two way communication while connection it with computer
3) Firmware can be upgraded by user
4) Motor cable can be inspected while connecting the power battery
5) Simply set function value by programming box or by PC via USB cable
6) Li-MH/Li-PO, Ne-Cd/Ne-Mh, LiFe battery can be used
7) Enable setting the voltage per cell for the point at which the controller’s cut off circuitry engages. Li-MH/Li-Po from 2.0V-3.6V, Ne-Cd/Ne4-1.0V, LiFe from 2.2-2.8V
8) Reverse function, the delay time of reverse is adjustable.
9) The power of the motor forward/reverse can be set
10) Automatically detection the throttle route or can be set a fixed number by manual operation.
11) Auto cut off the power within 3 seconds if no radio signal
12) Timing setting may be adjusted (0-30) to suit the motor type.

Specifications:
MOTOR: MP120100
MAX POWER: 25KW
KV: 35KV, 55KV, 80KV, 130KV,
TORQUE: 46Nm
MAX RPM: 8000
ESC: 22S 380-500A
MAX VOLT: 100 V
MAX CURRENT: 350A
CONTINUOUS CURRENT: 230A
SIZE: 120 mm x 120mm (without shaft)
STATOR: 60mm
WEIGHT (KG): 4
SHAFT: 12mm
ACCESSORY PACK: Yes
Design Logistic UAV