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Air Ambulance

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A B S T R A C T

This reimagined ambulance concept comes down to a one-person drone modelled after a standard quad copter, driven by a GPS, pilot, or combination of both, that could be dispatched to an emergency scene with a single EMT. Smaller than the conventional ambulance and their drone is designed to be able to land almost anywhere. Once it reaches the scene of an accident, the EMT would deploy, stabilizes the patient, and send the feedback to the hospital for further treatment.

At first sight, the concept presents numerous advantages. In addition to being able to make interventions in heavy traffic that much easier, it would also be able to land on top of buildings and perform airlifts from tight locations conventional helicopters cannot. And instead of a single pilot flying a single helicopter, one person could manage a whole fleet of drone ambulances remotely, relying on autopilot through the skies, and only taking over manual controls during more complicated take-offs and landings**.**

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1. Intoduction

This reimagined ambulance concept comes down to a one-person drone modeled after a standard quad copter, driven by a GPS, pilot, or combination of both, that could be dispatched to an emergency scene with a single EMT. Smaller than the conventional ambulance and helicopter (it is roughly the size of a small car), their drone is designed to be able to land almost anywhere. Once it reaches the scene of an accident, the EMT would deploy, stabilizes the patient, load them up, and send them back to the hospital for further treatment.

At first sight, the concept presents numerous advantages. In addition to being able to make interventions in heavy traffic that much easier, it would also be able to land on top of buildings and perform airlifts from tight locations conventional helicopters cannot. And instead of a single pilot flying a single helicopter, one person could manage a whole fleet of drone ambulances remotely, relying on autopilot through the skies, and only taking over manual controls during more complicated takeoffs and landings.

The idea was born from a team brainstorming session around how health care could be made more accessible and how they might be able to build a better Ambulance. The rise of autonomous vehicles inspired them to consider a self-driving ambulance, which in turn made them think of helicopters and drones. The rest developed from there.

HARDWARE USED.

1.APM 2.8 Flight controller

2. A2212 1000kv motor

3. Power Module

4. Simonk 30A ESC

5. 1045 propellor
6. GPS 7m
7. Telemetry
8. f450 frame
9. battery 2200 mah lipo

Working

The purpose of this project is to develop a drone ambulance with on the go medical facility to save human lives. In which we can use Auto pilot to drive to the location of accident of patient which is received by the executive of the hospital. In the current global situation, the number of accidents is quite high and the risk of life increases if medical aid does not reach on time. So, to cut this time short drone ambulance can be used. As it will take an aerial route which is much faster than the roads. An ambulance cannot reach on time due to bad road conditions and traffic jams. To overcome this problem drones can be very useful. In the existing scenario, the drones can only carry one type of medical aid like a defibrillator. This paper aims at introducing a system that can fly to the accident spot with the required medical aid not just one type of aid. This drone can carry any first aid kit and it can drop the first aid kit at the emergency location with the help of a dropper.

Literature Survey

We had researched a lot on this topic and let to know that An university DELFT UNIVERSITY OF TECHNOLOGY (TU DELFT) From Netherlands has already been trying to implement such product of air ambulance escort and is been researching a a lot so we led to research more on this topic and learnt about all our autonomous features of our drone and thus completed it.

Scope of Project

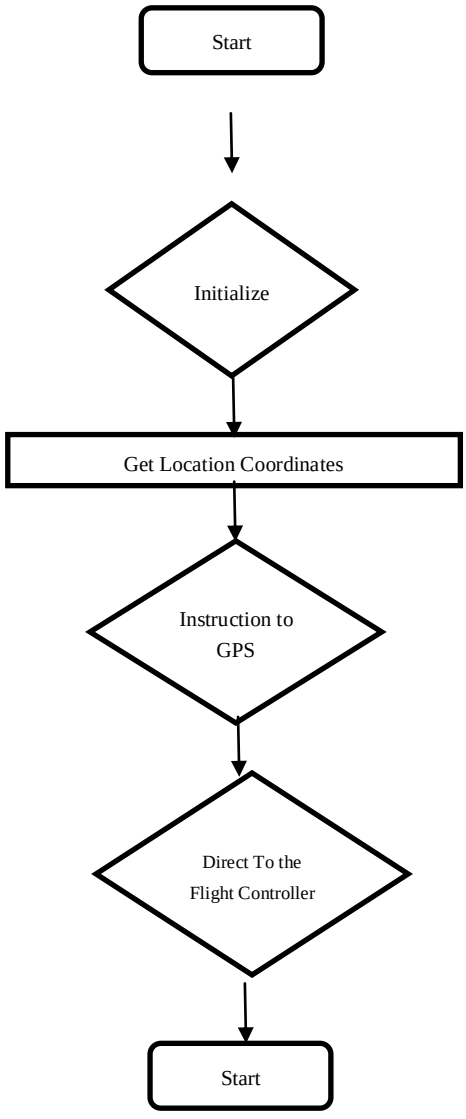
- Our this device helps us to reach directly on the nearest location of the patient through an autonomous flight, yes we have designed this drone or Quad copter to make it autonomous, Autonomous stands for driverless driving of the drone, & this makes it more special.

- Without a doubt, the advent of drones that can save people's lives are likely to alter people's perceptions of them. Combined with self-driving "drone" cars, delivery drones, and unmanned vehicles that can deliver clean, sustainable energy, it appears that UAVs are merely one aspect of a future where automation and semi-autonomous machinery will be doing the legwork for us.

Methodology

The Drone Ambulance can be used to save the life’s in medical field if use as for emergency rescue and this makes it to save life if any Emergency Ambulance is not Able to move to the location of patient, due to the any commercial or traffic issues, in such condition this drone can be used for the emergency supply of medical equipment, for e.g. if someone suffer any health issue and the ambulance is not able to move to the location then this drone ambulance can be used the executive from nearest hospital can ask to the patient’s guardian for the location an d nearest point of the patients location can be feed into the drone and with help of the autopilot software, and with this the drone can be landed with the emergency supply to the patient location, and thus can save the life.

Flowchart of working



Conclusion

- We conclude that this device can help to save the life of patient in emergency condition.
- This device can transport medical devices which cannot be transported by ambulance in some emergency and critical circumstances.

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