

Emergency Response

Representative Patent 03

- ❖ Title of Invention : **Unmanned aerial vehicle for marine rescue and rescue method using the same**
- ❖ Application Number. : KR2018-0136316

Application of Technology and Field of Use

◆ Rescue of marine victim

◆ Inaccuracy of life tube drop when rescuing marine victims

- During dropping the life tube, it is greatly affected by the wind, which causes a problem in the accuracy of the drop, and there is a risk that the drowning person will be hit by the life tube during the drop due to the load of the life tube.

◆ Limitations due to weight and volume of life tube

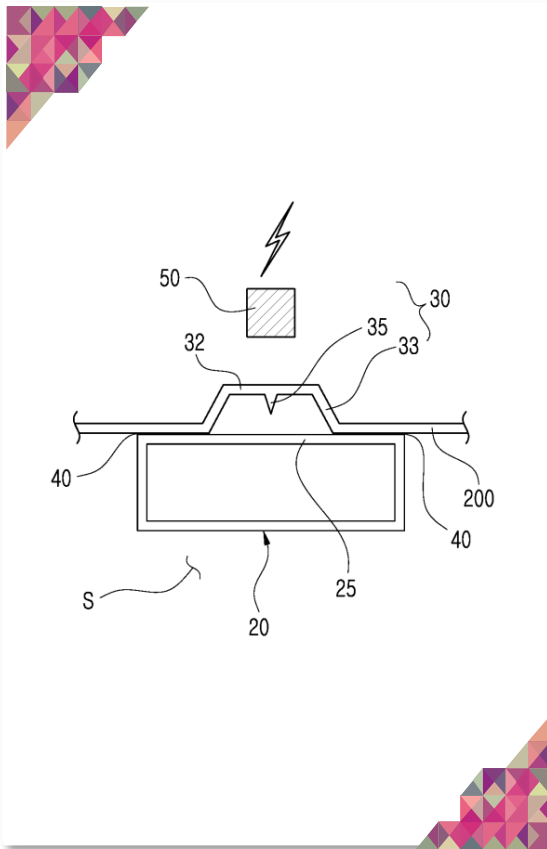
- The weight and volume of the life tube make it difficult to control the drone in windy seas.
- The number of life tubes that one drone can transport is very limited.

◆ Restriction of drone usage time due to heavy weight

- Since a camera for video shooting and tools for rescue are mounted on one drone, the weight is increased, so the flight time is greatly shortened and the battery replacement is frequent.

Features of Technology

- A life tube
- A capsule filled with compressed air
- A burst device configure to inflate the life tube by bursting the capsule



<Representative drawing>

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Technical Effects

◆ Less affected by wind while transferring life tube

- The life tube attached to the drone is manufactured to maintain a small volume while moving and expand when the drone approaches the victim. Therefore, when the drone transports the life tube, it can be less affected by the wind than the conventional method.

◆ Possible to increase accuracy of dropping life tube

- The accuracy of dropping can be improved by dropping the life tube under compression.
- It is manufactured to expand in the vicinity of the victim by adding a capsule containing compressed gas therein.

◆ Possible to lighten weight of rescue drone

- By compressing the life tube, the volume and weight of the rescue drone can be reduced and the drone can fly for a long time.

Social, Environmental, Economical Effects



<Marine lifesaving drone>

◆ Available as drones for rescue of marine victims

- It is possible to fulfill the role of delivering the life tube to the marine victim.

◆ Available as equipment for communicating with victim in real time

- By attaching communication equipment to the drone, it is possible to communicate in real time with the victims who have received the life tube to understand their condition.