

ENTRY 11: MAN OVERBOARD DRONE

Question	Answer
1. Are you submitting as a:	Individual
2. Email	cheukpiu1542@gmail.com
3. Tell us about yourself/team	I am Lai Cheuk Piu and I am currently studying in Hong Kong Maritime Services Training Institute. I heard about the competition from Maritime Professional Promotion Federation, which is an organization aiming at promoting maritime industry in HK.
4. Date of birth	01-05-1993
5. Brief description of your idea	Our idea is to enhance the chance of rescuing man overboard victims using drones and self-inflating lifebuoys. Being different from a normal drone, this MOB drone carries an infrared detector to search for the victim. It uses its auto-piloting system to reach the position vertically above the victim and deploys a self-inflating lifebuoy automatically upon locating of the victim. The self-inflating lifebuoy is of light weight and small size to reduce the load and air resistance acted upon the drone. Inside of the lifebuoy is mixture of chemicals that can react to generate sufficient amount heat and gas when it is deployed. A small built-in device provides position-locating function such as GPS. A control to mechanically trigger a small spark inside the lifebuoy is attached on the lifebuoy.
6. Tell us how your idea is original?	The idea of using a drone to aid MOB search and rescue is original, including the installation of infrared detector, position-locating device to locate the victim and the airdropping of lifebuoy to improve his/her survivability.
7. How relevant is your idea to the shipping industry?	The idea is directly related to the shipping industry because MOB is an emergency situation on board ships.
8. How relevant is your idea to safety?	The idea is directly related to the safety of crew or passenger on board ships under MOB situation.

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<p>9. How might your idea be implemented?</p>	<p>Comparing with the self-inflating lifebuoy, the design and production of the drone needs a higher level of customization by the drone manufacturer.</p>
<p>10. What is the overall aim of your idea – will it save lives? Prevent losses?</p>	<p>The overall aim is to enhance the likelihood to locate the victim overboard and improve his/her survivability. Lives can be saved as the self-inflating lifebuoy does not only help the victim to float, but also prevent his/her death caused by hypothermia.</p>
<p>11. Declaration</p>	<p>I hereby declare that this submission is my own work and that it contains no material previously published by another person, or material which has to any substantial extent been taken from any existing project or programme.</p>