

ENTRY 4: SAFETY.LOCATOR.ASSISTANCE.MONITORING.SYSTEM - S.L.A.M SYSTEM

Question	Answer
1. Are you submitting as a:	Team
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6. Tell us about yourself/team	<p>We are Marine engineering and marine offshore technology students from Singapore polytechnic and Ngee Ann polytechnic in Singapore. We heard about this competition through an email sent by one of our lecturers and have challenged ourselves to participate in this momentous event where opportunities await to share our ideas to contribute to the shipping/ marine industry.</p>
7. Date of birth	20/08/1997 , 02/07/1999 , 09/01/1999 , 30/08/1996
8. Brief description of your idea	<p>Safety.locator.Assistance.Monitoring.System - S.L.A.M System Engineers starting work on vessels are given this personal device . This device helps to monitor the amount of time that person has spent in the area of the vessel to monitor their safety and the amount of time spent in that compartment For example, if an engineer or staff enters the engine room and is tasked to carry out work individually or with an assistant, if they might have been in the engine room for too long it may be a problem for it may be due to unforeseen danger or injury. so if they are in danger, they can press the button on the device to ask for assistance. One of the functions is that the system works via scanning of the QR code. It is placed at certain high risk areas where a person will have to scan the code. This will inform the engine room control that someone has entered the area. The device can also be used as a one man station button to relay information of which acknowledges back to the officer in-</p>

Question

Answer

charge that they are still present and operational. It acts as a headcount device as well for emergency drills and actual emergencies so that it ease the evacuation process in a case of a situation which calls for abandonment of ship.

The system works like a tap in tap out system. The staff/engineer has to tap into the system right before entering the high risk area before he or she will carry out work. The system then monitors the amount of time he or she has been in the room and thus would keep track on the location of the person until he or she is done with the work carried out. In an event of an emergency where by the worker is injured or is not to be found leaving the room after a long period of time, the system rings and alerts the captain or the watch keeping crew member to carry out investigation and go to the said location where the crew member or worker was last seen on system. This system aims to reduce workplace accidents and fatalities to protect each and every individual on board. Every crew member is accounted for and no life is worth sacrificing for the sake of their job, no life is ever considered cheap and disposable and thus, helps to monitor safety of crew members in risky work areas in the vessel while at sea.

9. Tell us how your idea is original?

The originality is the application of the device. The increase in reliance of technology in the industry has inspired this idea, as we are looking forward towards a digital future whereby safety can be implemented to the technological stage as it could ease the workflow and safety of seafarers and workers on board vessels.

10. How relevant is your idea to the shipping industry?

The idea relevance is from the safety of the shipping industry, where we aim to reduce casualties and fatality incidents on the work areas of vessels where it brings high risk towards seafarers and workers on board the vessel. we look towards high risk task which require supervision and improve it further to enhance safety and efficiency of all.

11. How relevant is your idea to safety?

The relevance to safety of the idea is that we pursue to innovate the methods of approaching to safety of the shipping industry, by implementing technology into the cause. we plan to implement it for workers and seafarers on board the vessel for one man stations, medical data of crew member, QR code scanner - (QR code located at high risk areas) allowing for officer in-charge to be aware of the amount of crew members in the risk area and it could be customized for the needs and specifications of any company. It as well acts as a headcount device that assist the officer in-charge if there is any emergency, helps them by being a headcount device that alerts the officer in-charge if there is anyone missing from each muster station from just the press

Question

Answer

of a button from each and every one of the crew members. This is well represented as relevant as it covers the factor of personal safety of each and every crew member to be accounted for and would reduce the amount of possible fatalities or casualties on-board the vessel in a case of an emergency, helps in keeping alert of your condition in work spaces and assist rescuers of special medical needs of various crew members with their history and medical issues added into the device.

12. How might your idea be implemented?

The idea is implemented by issuing each crew member the device with the customized settings for each and everyone by the types of job and medical history. The device is then linked to a master device to keep track of the number of workers in high risk locations, types of job they're doing and in case of an emergency, a system for headcount. The master device is the be portable to carry for example a tablet, so of which the ease to check for any issues on-board from anywhere in the vessel.

13. What is the overall aim of your idea – will it save lives? Prevent losses?

The overall aim for the idea of this is to save lives, keep an alert to the officer in-charge and reduce the number of fatalities at high risk areas of crew members at work in case of any accidents. For emergency wise, it is used as a headcount device which relays a message to the master device to account for each and every crew member that presses the button on their device which relays the message. It will alert the master user if there is a short of number for the headcount.

14. Declaration

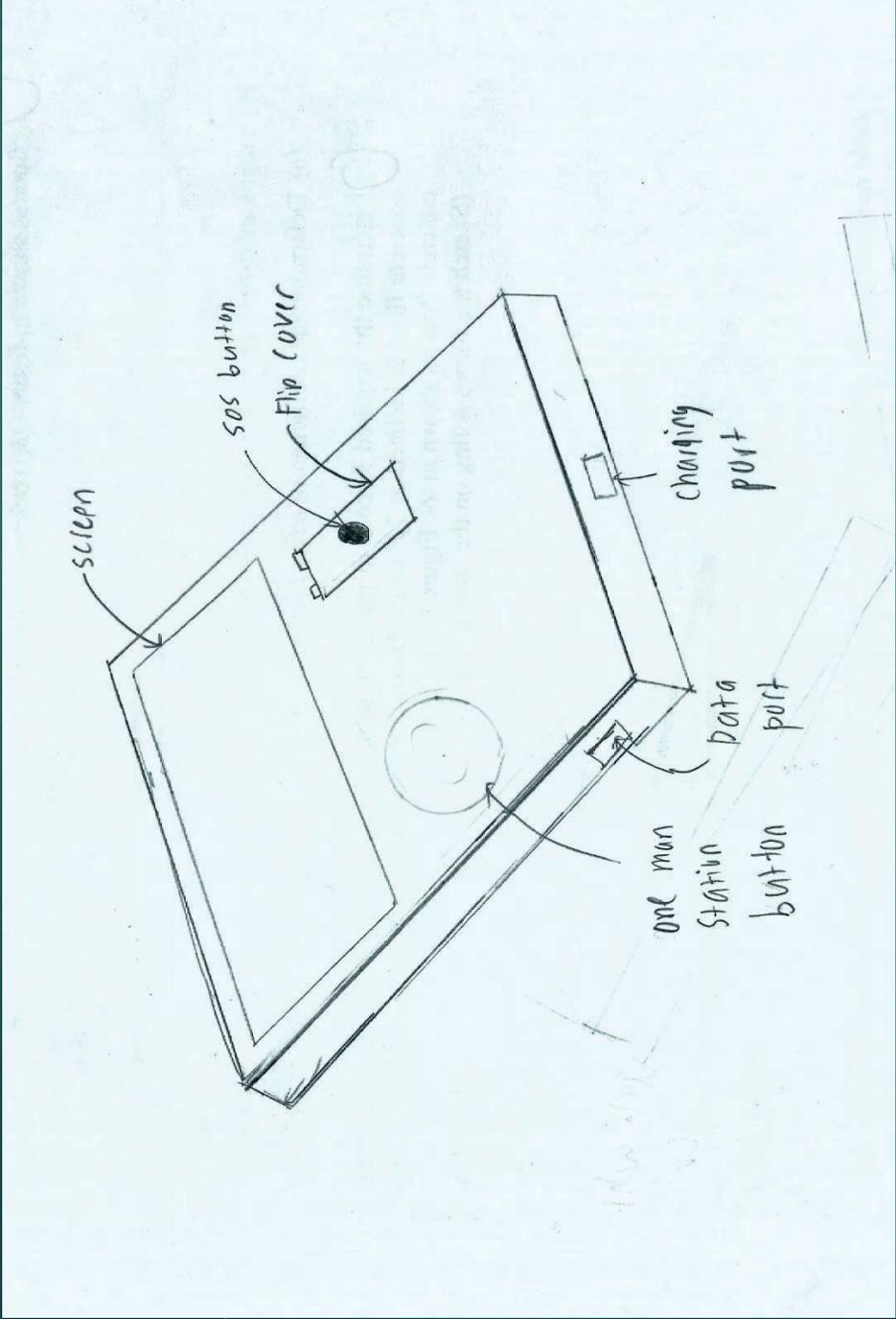
I hereby declare that this submission is my own work and that it contains no material previously published by another person, or material which has to any substantial extent been taken from any existing project or programme.

15. Additional imagery/graphic or photos to support your idea

S.L.A.M powerpoint with sketch.pptx

S.L.A.M System

Product sketch



Functions

- ▶ Store basic relevant medical data of crew member.
- ▶ QR scanner- QR code to be placed at areas with high risk of accidents. The worker will scan the QR code , allowing the officer in charge to be aware of the amount of workers in the areas with high risk. At the same time it allows the officer to know whether the crew member is still inside the compartment operational or have safely exited the area.
- ▶ It is a one man station device-by pressing the button n the device, it will inform the master console that the worker is safe.

Functions

- ▶ Acts as a headcount device. During drills or emergency, all workers are to press the one man station button to indicate to the officer in charge that they are ok before heading to their respective muster stations. Officer in charge will be able to identify those who have yet to press the button and search for them, thus reducing time needed for manual headcount and increase the response time.
- ▶ Another function is also that the officer can activate a signal anytime of the day, the workers will have to acknowledge by pressing the button, allowing the officer to keep track of amount of workers available.
- ▶ System can be customised to the users needs and specification. longer/shorter timing etc.

Autocad sketch

