

## ENTRY 40: TEMPERATURE SENSOR DATA LOGGER FOR CONTAINERS

Question	Answer
1. Are you submitting as a:	Individual
2. Email	<a href="mailto:oneill-ryan@hotmail.com">oneill-ryan@hotmail.com</a>
3. Tell us about yourself/team	I am Ryan, i am 26 years old and a cadet for Maersk studying at south Tyneside college. i currently reside in south sheilds but i am originally from Wallasey a short distance from Liverpool. i was told about the competition by my training officer from Maersk an was encouraged to enter.
4. Date of birth	06/10/1992
5. Brief description of your idea	<p>My idea is a temperature sensor data logger. It has a magnetic base and would be stuck on the outside of the container measuring the temperature of the container. This temperature sensor relays the data wirelessly to a computer on-board. The computer has each temperature sensor mapped onto an image of the cargo arrangement. when a rapid rise of heat is found an alarm would be sounded. the computer will take into account ships direction together with sun direction and factor this into the rate of rise within the containers. it could also be used to notice a heat rise with in a specific area within the ship.</p> <p>The devices have a built in rechargeable battery but they could also be hard wired and ran off a power source. For devices that inside are located inside cargo hatches a small repeater unit could be used to relay the signal outside of the cargo hold.</p> <p>i believe that my device could be installed on container ships and use to alert the crew on that ship to a potential fire a lot earlier than conventional methods. A significant rise of temperature could be a sign of a fire within a container, heat radiating from that container to nearby container could cause the fire to spread within the containers but with no visible fire yet. my idea would alert the crew to this and could catch fire outbreaks a lot earlier allowing crew to take measures to extinguish the fire.</p>
6. Tell us how your idea is original?	Temperature measurement happens to reefer containers however, no temperature measurement happens to all other containers. Dangerous goods and standard containers go without temperature measurement. my idea would change

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	this without having to modify the international standard of containers.
<b>7. How relevant is your idea to the shipping industry?</b>	My idea is very relevant as it is a idea that could detect fires early and aid in rapid actions to extinguish the fire and minimise spread of the fire onboard ships.
<b>8. How relevant is your idea to safety?</b>	My idea is all about fire safety and early fire detection
<b>9. How might your idea be implemented?</b>	Shipping company would purchase this system and have it fitted onboard. It is a system that could very easily be implemented or retrofitted. i believe the system could run within the network that reefers use onboard ships already to report current condition and temperature, which would keep implement ions costs even lower.
<b>10. What is the overall aim of your idea – will it save lives? Prevent losses?</b>	<p>The overall aim of my idea is to save lives. My product will aid in early detection of fires within containers. Earlier detection of fires is proven to help gain control of a fire and stop spread. If a fire is detected earlier the fire may be extinguished earlier leading to fire being controlled and not spreading to more areas of the ship and going out of control.</p> <p>if the fire is controlled less of the ships structure is damaged by the fire. Less cargo carried in containers nearby is destroyed by the fire thus also preventing losses.</p>
<b>11. Declaration</b>	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.