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Sea Oil Separator

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Abstract: *This paper provides a way to extricate water from its immiscible mixture with oil which is present at the bilge, the lower compartment of a ship while retaining oil and directing it to a waste-oil tank for purification and hence reuse. In this project, we propose to separate oil and water by electronic means, by use of a microcontroller that is interfaced with an oil sensor and relays. The water obtained after separation will be free of oil and other pollutants and can be pumped out into the sea without causing any harm to the marine ecosystems. The advantages that the proposed method offers over traditional ones along with an overview of the systems currently being used for this task along are also enlisted. This project will be in conformation with International Standards such as MARPOL (Marine Pollution) and MEPC (Marine Environment Protection Committee) which forbid the ships from directly pumping out the water (containing oil) from the bilge of the ship because of its insalubrious effects on the marine life of the ocean..*

Keywords: Bilge, Electronic method, Marine ecosystems, Oil-sensors, Oil-water separators

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