

HYPER PROPULSION POWER CRAFT 2.0

HYBRID PROPULSION (SOLAR POWERED BOAT) – VERSION 2

SP Singapore Polytechnic



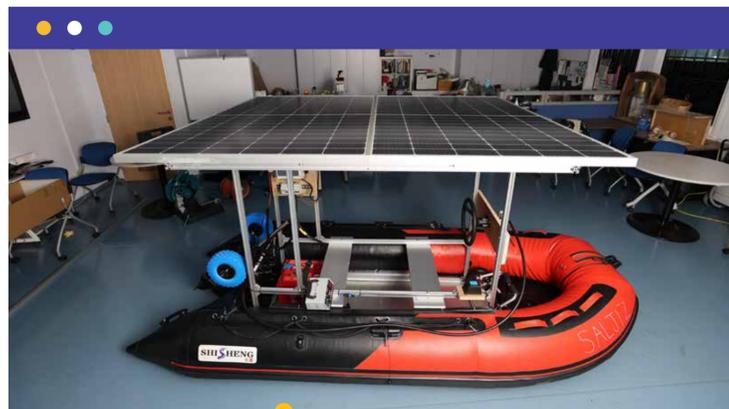
SMA
Singapore Maritime Academy
SINGAPORE POLYTECHNIC

PROJECT OBJECTIVE

An improved version of an earlier prototype, this solar-powered craft will be tested in water via a sea trial. The aim is to reduce carbon emissions from large ships by encouraging large vessels to use a cleaner source of energy.

PROJECT SUMMARY

Improvements made include: (i) the addition of another solar panel; (ii) swapping the batteries to 2 smaller ones; (iii) introduction of remote speed control; (iv) replacing with a stronger outboard motor which is connected to the initial Maximum Power Point Tracker (MPPT) and breakers. The improved design was then installed on the same dinghy used in the earlier project, before commencing the sea trial.



HYBRID PROPULSION CRAFT
(SOLAR-POWERED PROPULSION)



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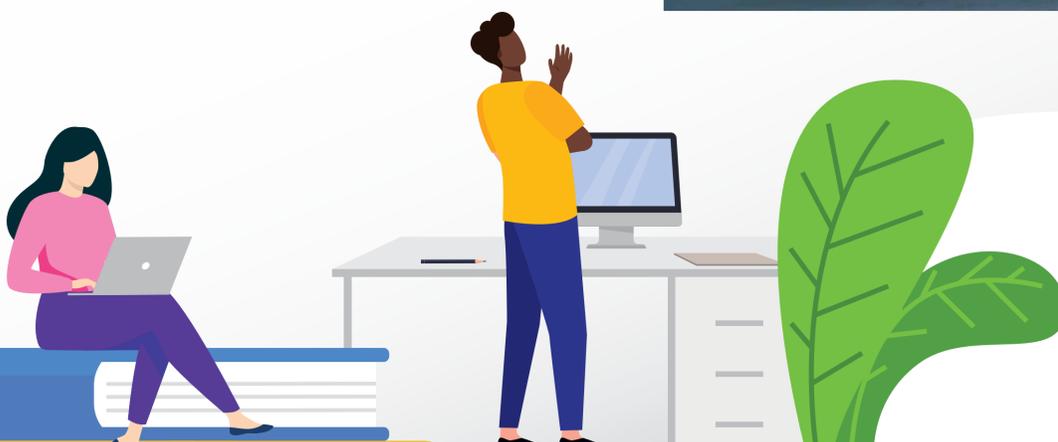
Diploma in Marine Engineering | Year 3



SEA TRIAL NEAR SMA'S POLY MARINA

PROJECT OUTCOMES

- Address challenges such as size constraints, vessel maneuverability, stability and displacement as well as water-proofing of electrical devices and connections.
- Record the vessel's performance with data generated from the sea trials, for further analysis and improvements.



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