

# **THERMOSYPHON SOLAR HOT WATER HEATING SYSTEM FOR A SINGLE STOREY HOUSE**

Prepared by: Steven Chong Tze Leong, Ng Zi Jing, Liew Sung Feng, Zhang Debo

## **ABSTRACT**

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This project report is about constructing and improving the thermosyphon solar hot water heating system for a single storey house. It shows how the parts are involved in the whole system. The objectives of this project are to understand how the system works and to create an awareness of an alternative, environmental friendly and cheap water heating system.

In this project, we will also show how the system works without the use of a pump. Once a pump is omitted from the system, we are able to produce a water heating system that is cheap and almost maintenance free. In addition, the report explains the ways to overcome its main weakness of the system; the absence of sunlight.

Besides that, the project includes the design and model of the single storey house that will be used to support the system on it. The structure and calculations are carefully done to ensure the structure does not buckle or fail when the load (solar heating system) is installed and commissioned on it.