

SUMMER & the Roof – Competition Details

INTRO TO THE COMPANY

Summer Solar Water Heaters are manufactured by Solartech Sales & Service Sdn Bhd, which was established in Malaysia in 1980. As the pioneer of solar water heating systems in Malaysia, Solartech also introduced the 1st Made in Malaysia system 'SUMMER' to the market. With 3 decades of product excellence, professional service and a growing international presence the SUMMER brand has earned its recognition as the market leader in the local market.

Additionally SUMMER has recently won the SME Best Brand Award in South East Asia for solar water heaters, awarded to Solartech by the prestigious BrandLaureate Awards.

COMPETITION OBJECTIVES

1. Real life application of design
2. Inspiration on how SUMMER Hot Water Technology can contribute to greener living
3. Stimulating teamwork between students

THEME

SUMMER & the Roof

Objective: To produce Innovative Redesign of SUMMER with Integration into MODERN Rooftop
(examples of types of roof below)

ROOFTYPE OPTIONS DRAWINGS HERE

PROBLEM STATEMENT

The outward appearance of solar water heater models has not changed much over the last few decades despite there being improvements to efficiency and cost-effectiveness. Of course minor improvements have been made to visual/external aspects of these systems – i.e. fittings, finishing of product.

However, *no true visual improvements* have been made to these systems.

SUMMER Technology Info

PRODUCT SCHEMATICS HERE

INSTALLATION SCHEMATICS HERE

SUMMER works by a physics principal called *thermosyphon*. This principal allows SUMMER to work without the use of pumps or any other machine requiring moving parts making it truly a green product.

The only electrical component in use is the *auxillary electric booster* in-built in the tank which is provided in all SUMMER models to compensate for mother nature's whimsical moods (cloudy/rainy/snowy days).

SUMMER tanks are *pressurized* hence its cylindrical shape.

SUMMER is sometimes viewed as an alien, unattractive and obtrusive item on the rooftop by customers/architects more inclined to preserve the design of their home. Alternative installation methods which *conceals the tank* as depicted in the INSTALLATION SCHEMATICS GUIDE are viable options; however this *complicates the installation* and makes SUMMER *cost more to be installed*.

Standard installation procedures by skilled installers will take approximately *2-3 hours*.

A house *must have hot water pipes installed* in order for SUMMER hot water to be distributed evenly to all outlets. Hence, if a customer wishes to install SUMMER but has completed:

- building house
- renovation of house

without hot water pipes, the costs to install SUMMER will then become very expensive.

SUMMER TX models are designed for *temperate climates* and can withstand *freezing temperatures*.

Questions To You

What are the problems that **YOU** see with the product as it is currently?

In what way do **YOU** feel it can be further improved?

SUMMER is a water heater, a Green Tech water heater. Solartech wishes to see proposals which takes into account:

1. Visual Appearance
2. Modular (Scalable)
3. Ease of Installation
4. Climate (Tropical/Temperate)
5. Environmental Concerns
6. Product Efficiency (Production/Performance)

You are welcome to include additional points of interest as you see fit. *Explore different concepts!* Solartech encourages innovation and is open to fresh product improvement ideas in any way possible.

PARTICIPATION REQUIREMENTS

1. Individual or Team effort up to **3 members** per team.
2. Participants should follow milestones guidelines:
 - **8th April** – Initial raw concepts submission to project supervisor for review
 - **11th May** – Final concepts submission
 - **11th June** – Finalists model and presentation
3. Entry open to all students from participating institutes currently undergoing the courses listed below:
 - Industrial Design / Product Design
 - Architecture
 - Engineering (Mechatronics, Mechanical, Manufacturing, etc.)
4. Teams composed of participants from different disciplines are **allowed**.

REGISTRATION

The registration is *free of charge*

Opening date: 28 February 2011

Closing date: 27 March 2011

- To register: Complete the application form online and submit
- We will e-mail you a **Registration Code** following receipt of your registration.
- Registrants will be invited to attend the **SUMMER & the Roof WORKSHOP**.

SUMMER & THE ROOF WORKSHOP

Date & Time: Check with Supervisor or download Workshop Schedule online

Venue: SOLARTECH SALES & SERVICES SDN. BHD.

5, Jalan Teknologi 3/5, Taman Sains Selangor 1, Kota Damansara, 47810 Petaling Jaya,
Selangor, Malaysia.

Purpose: The workshop will provide insight on SUMMER by breaking down the product to provide an in-depth understanding of its technology. Also covered will be the production process as well as a demonstration of a SUMMER installation.

The information provided during this workshop will be beneficial to participants as it will cover important aspects necessary for participants to *facilitate a feasible design concept*.

Workshop participants will also be required to sign a *Non-Disclosure Agreement (NDA)* upon attendance.

EVALUATION CRITERIA

The Organizer has the right to appoint any jury to evaluate the participating entries and decisions made by panel of jury shall be final and no correspondence will be entertained. The evaluation is based on:

1. Visceral Beauty
 - The attractiveness of the design concept
2. Functionality
 - Fulfilling its intended functions and reliability of the concept
3. Design Concept Quality
 - Demonstration of quality of concept with regards to durability, manufacturing process, materials used, etc.
4. Product Innovativeness
 - Degree of creativity of design concept and improvements which benefit users
5. Originality
 - Novelty and uniqueness of the design
6. Commercial Potential
 - Market acceptance and cost efficiency in production
7. Eco Traits
 - Level of consideration for the environment (i.e. carbon footprint)

* Quality of final presentation *will affect* the judging of concept.

PRIZES

- Winner: RM 6,000 + 3 – 6 months Internship Offer
- 1st Runner up: RM 3,000
- 5 X Consolation prize: RM 500