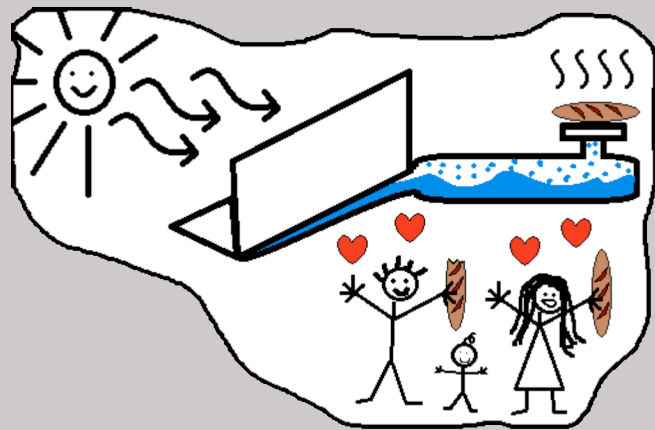


THE Port - Hackathon at CERN

Humanitarian applications of an efficient Solar Collector Device



Summary:

Solar collectors focus sunlight in order to heat up fluids such as water or oil that can then be used for creating electricity, provide heating or enable disinfection or sterilization. Such applications could be extremely useful in a humanitarian context, e.g. in remote areas where there is no electricity grid available.

Goals:

A solar collector prototype originally developed at CERN should be evaluated in terms of possible applications in the humanitarian field that can take advantage of its particular characteristics, which involves the capability to heat up fluids to extraordinarily high temperatures (200-300° C). Such applications might involve its use as a heat source for an oven, e.g. for baking bread, sterilization of water, or various bio-processes, e.g. for the extraction of gas. A functional prototype developed during the hackathon should be able to demonstrate its intended use and, if found to be suitable, leave the option of further development and refinement in cooperation with interested parties.

Resources:

A functional solar collector unit is available for testing applications. Hardware for fabricating a prototype of such an application must be built or acquired. From a safety point of view, attention must be given to potentially high temperatures involved. Various groups and individuals at CERN offered their help and expertise.



www.theport.ch