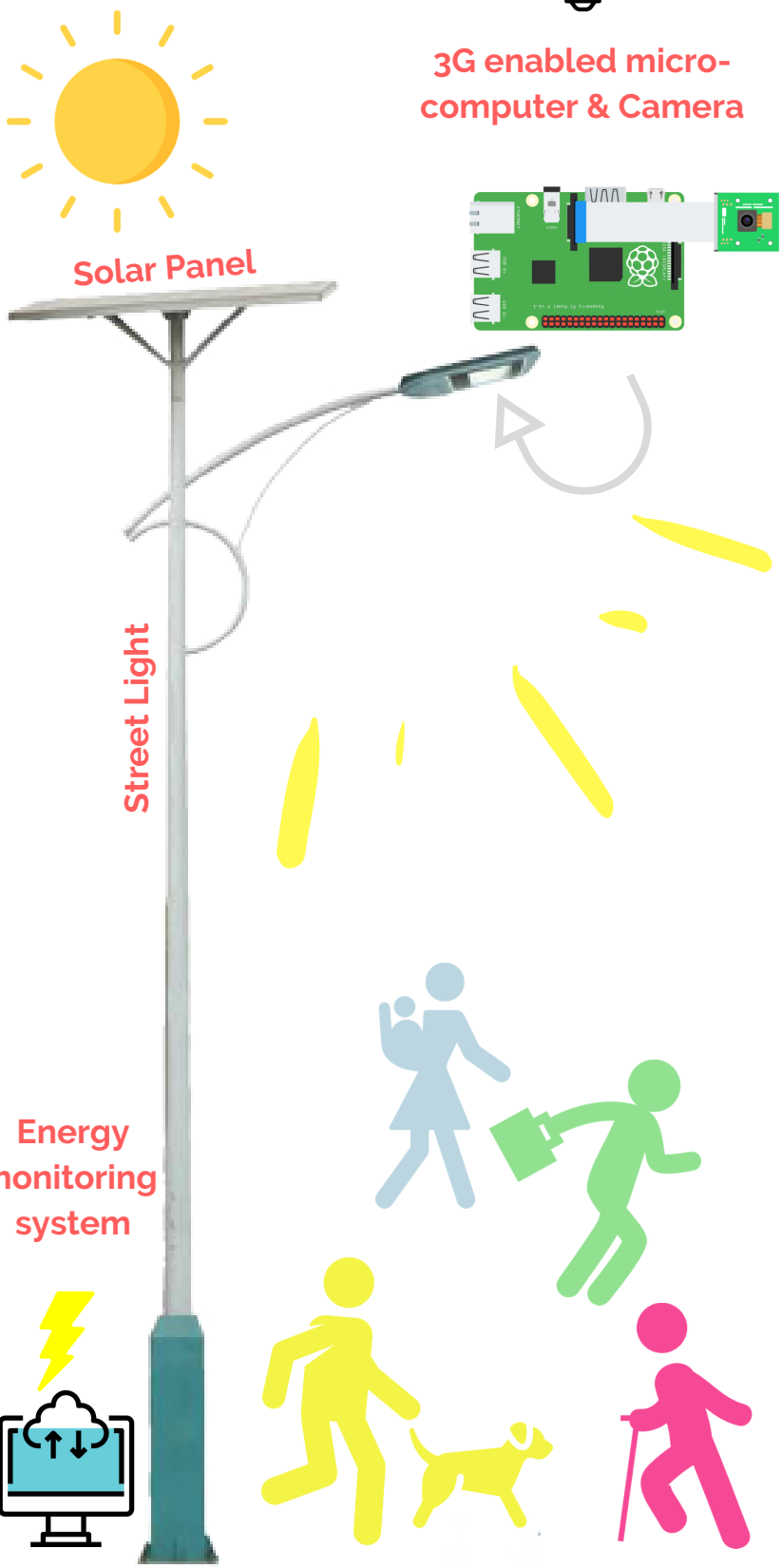
IMPROVED ACCESS TO ELECTRICITY

SOLAR STREET LIGHTS

Humanitarian Engineering and Energy for Displacement

HEED PROJECT



Idea

Although the use of solar street lights is becoming more commonplace in the places where refugees and internally displaced people (IDPs) live, there is limited research on the impact that solar street lights has on human security and wellbeing as well as economic productivity. Improved solar street light could improve feelings of safety, facilitating greater social interaction and offering opportunities for community and commercial night time activity.

Aim

To compare pedestrian footfall before and after the additional of solar street lights to understand whether lighting increases movement and the potential for greater community and commercial activities after dark.

To evaluate whether energy access can be improved by providing residual energy from the solar street lights for other activities e.g. mobile phone charging

MONITORING SYSTEM

The solar street lights will host sensors to measure pedestrian footfall and measure the energy consumed. The pedestrian footfall monitoring will be used to compare foot traffic pre and post streetlight installation to measure the impact of streetlights. To measure the utility of mobile phone charging we will measure the energy generated and consumed by the solar street lights. The system does not store or process any personal data.

Summary

The use of sensor-based systems to compare pedestrian footfall before and after solar street lights have been provided will help the HEED project to better understand the impact that such solar street lights has on movement around camps and settlements.

In addition, the project will explore and evaluate whether residual energy from solar street lights can be used to supply individuals or businesses with phone charging stations to expand access to energy.