

# SOLAR POWERED STEAM ENGINE



**Problem Statement**

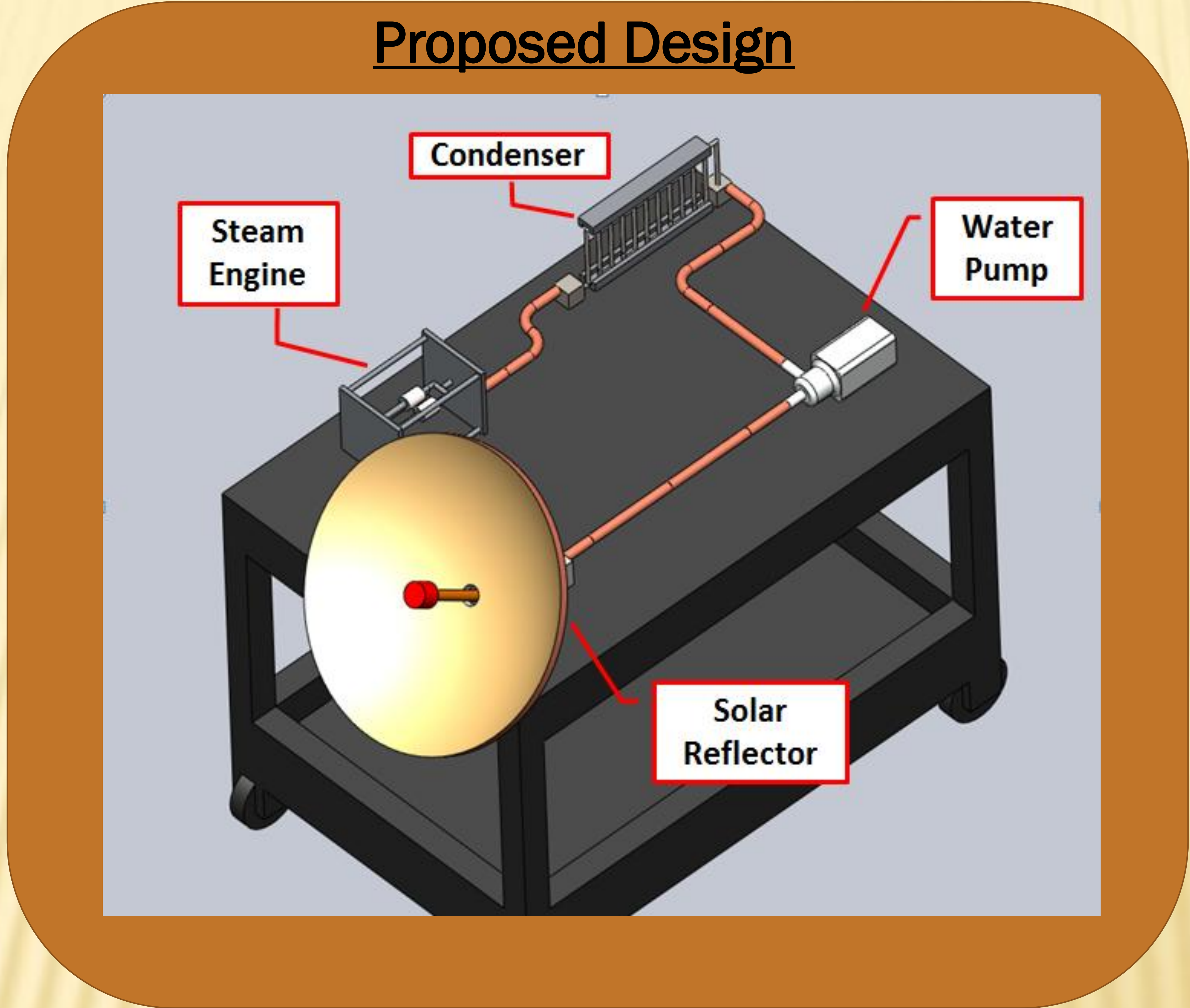
- Need for renewable energy sources
- Future scarcity of fossil fuels on a worldwide basis
- Reduce Greenhouse gases emissions

**Design**

- Calculate required specs for each component
- Research standard and Organic Rankine Cycle
- Test system efficiency in order to justify marketability
- Verify system safety to reduce future incidents due to pressure or heat.

**Motivation**

- Growing demand for green energy
- Reduce environmental impact from fossil fuels
- Help people without access to electricity



**Objective**

- Efficiently collect solar energy using a parabolic reflector
- Produce 15 psi of steam pressure to power engine
- Develop a closed cycle to increase efficiency

**Process**

- Manufacture Parabolic reflector
- Manufacture boiler where water will be transformed into steam.
- Build small steam engine that will utilize steam efficiently
- Manufacture piping system to connect components

**Timeline**

	March	April	May	June	July	August	September	October	November	December
Project Formulation										
Literature Survey										
project Constrains										
Proposed Design										
Design and Analysis										
CAD Model										
Part List										
Cost Analysis										
Prototype Construction										
Prototype Test										
Final Report										
Final Presentation										

**Team Members**



Alejandro Forero



Charbel Saghira



Victor Berrueta