***Problem:***

Imagine you’re almost out of fuel before reaching your base, what do you do?

***Solution:***

Water ice can be harvested, and by using a device (container with a lens) that magnifies the sunlight on mars (of intensity 590 W/m^2), can be concentrated onto a single focal point within a concave container. The ice will lie on this focal point. The container, depending on where you are on Mars, must be pressurized so that the ice does not sublimate. When the ice melts the resulting water can be used to produce hydrogen and oxygen using electrolysis. Simple and light (pressurized) apparatus can be used to carry out the electrolysis. Microbial electrolysis can also be used in an emergency situation.