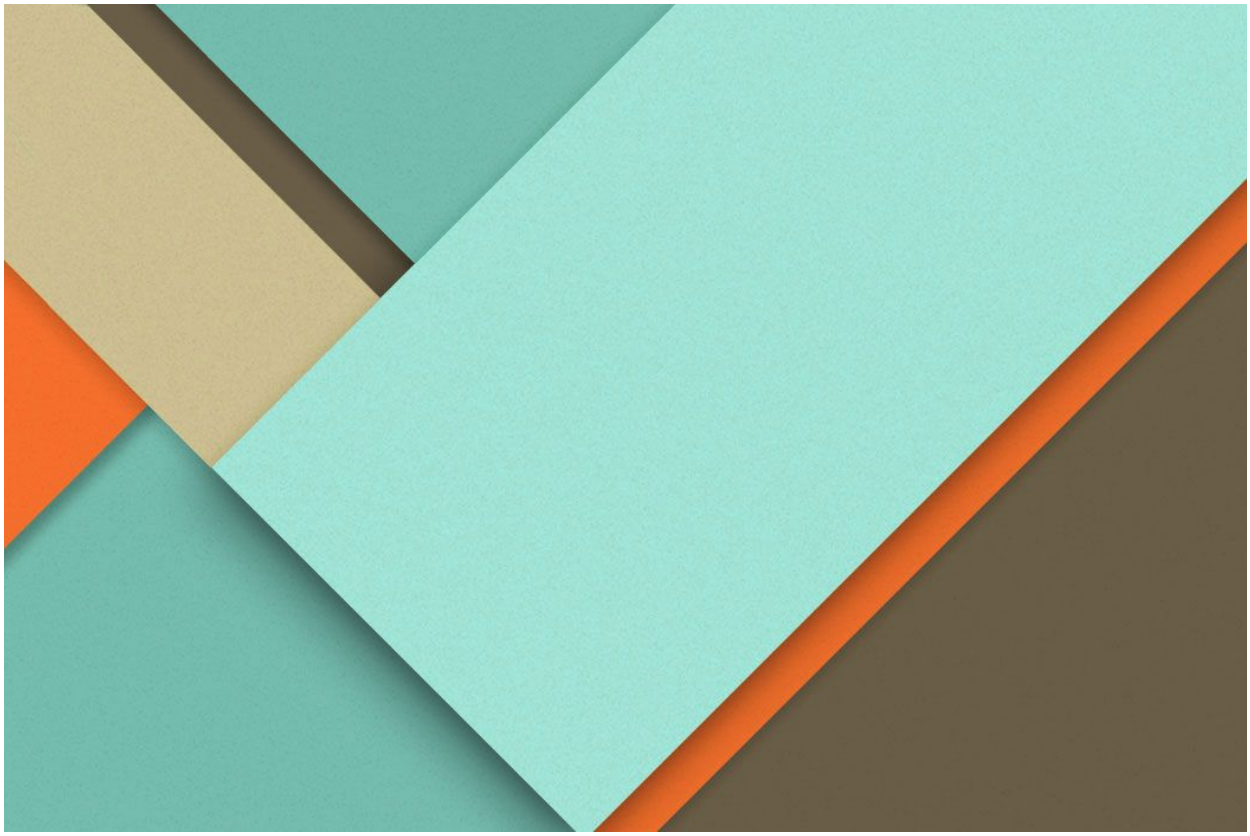

Atmospheric Water Generator(AWG)

—Team Name- AquaGens

Team Members:

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Introduction

We are planning to make an instrument which would absorb water from humid air. The basic idea is to use the hygroscopic property of the brine solution. The water will get absorbed in the brine solution on contact with air and laer in the process the water will get distilled making the brine solution again available for the process.

Motivation for the project

1. There are a lot of drought prone regions in india and this project could help solve the water issues over there.
2. Also in the case of disasters a larger scaled use of this project will help save many lives.

Description of the process

1. There will be a storage tank for the brine solution.
2. It will then be supplied to a large column of many small cylinders to increase the surface area in contact with the air. Pumps can be used for the purpose of supplying the brine solution.
3. To maintain the flow of air in the column suction fans can be used.
4. The diluted brine solution will then be transferred to another container having a vacuum.
5. Because of the vacuum the boiling point of the solution will get decreased and the absorbed water will get evaporated easily.
6. The evaporated water will be condensed and stored for usage.
7. The brine solution created in the vauum chamber will again be transferred to the storage tank for repeated usage.

Plan of action

Week 1

Collection of all the parts needed for the project and dimensioning of the containers and other various components.

Week 2

Intend to make the absorption chamber and test it.

Week 3

Making the distillation chamber and assembling the individual components.

Week 4

Testing the project and try to improve its efficiency.

Week 5

Try using the solar energy to power all the pumps and other electrical components. Also do any debugging.