Geocatcher is a structure that takes its inspiration from the desert cactus to collect and store ambient water through its increased surface area and unique geometry, providing drinking water, shelter from the sun, and creating an ideal environment for the growing of food producing crops. Using new technology in photo-voltaic fabric would also allow the structure to produce its own energy and generate light at night which would further promote the growth of plants. The Geocatcher’s unique geometry is especially designed to collect water, we expect that with an increased surface area of 45% compared to a geodesic dome structure each pod could collect up to 50 gallons of water a day ambient not counting rainwater.

While some of the structures could be used for the purpose of growing crops others can be used as spaces for people to gather and shield themselves from the sun while enjoying a glass of water. Although the Geocatcher is not site specific, our team imagines the structures to be located near camp grounds where its ability to produce food, collect energy, provide drinking water and shelter could be most accessible.

During the early afternoon the fabric on the structure serves a double function as its photovoltaic capability stores energy to power evening grow lights. At night the structures will glow a magenta hue which will promote the plant’s growth and increase the crop productivity under each structure.

Morning fog condenses on the stretched nylon fabric and collects in underground tanks which serve to water crops and as drinking water for the community.