The Carbon Sequestrator, Year Two

Thatcher, Amanda

Reducing the concentration of anthropogenic carbon in our atmosphere is the purpose of my prototype design. My focus for this year is to automate the last step of this process, which requires temperatures as high as 900° (C). By designing a prototype that uses a 29” by 41” spot Fresnel lens, that utilizes solar energy to generate heat. Other criteria for my prototype include no major interaction during heating periods, a 360° range of motion, and the ability to be dis/re-assembled. My prototype includes three axes of motion aligned with one another to effectively focus light from the sun, reaching 600°C during testing . I was able to run two sets of data collection, during which I determined what crucible setup to use for future testing runs that will help me progress to 900°C.

Awards Won:

Arizona State University: For the project that applies computer science to further inquiry in a field other than computer science

Google CS Connect Award