



Santa Clara
University

School of Engineering

UCCE Aerated Static Pile (ASP) Project Fall 2023

UC
CE

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Problem

The UC Cooperative Extension (UCCE) needs an ASP irrigation system for efficient watering to streamline their composting process and support educational program

Motivation

Optimize the ASP system for enhanced sustainability, user engagement, and educational outreach while ensuring continuous improvement and innovation.

Solution

After several revisions, our final product emerged as a solid, efficient irrigation system with enhanced stability and evenly distributed moisture. Key improvements included horizontal supports, a tightened drip irrigation system, and a hose connector, ensuring decreased water pooling, wind resistance, and automated, easy-to-access watering. It was also modular, allowing the structure to decrease from 5 ft to 3 ft through T connectors as composting makes the pile size smaller.

