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Project Deliverable B

Needs

- A more efficient way to clean water rafts
- If it requires electricity, must plug into a standard 120V outlet
- Must have some level of compactness, due to space constraints
- Easy to use
- Easy to repair
- Not too difficult to maintain
- Minimum support of 5lbs
- Must be safe to use
- Only food safe chemicals (Sanitol)
- Make the boards as dry as possible
- Quick
- Save water
- Automated solution is ideal
- Cut manual labour in at least half
- Clean all visible build up
- Table or wall mounted
- Affordable
- Cost efficient to run
- Easy to troubleshoot
- 18x72 inches for wall mount
- 30x96 inches for table mount
- About 3 feet out of the wall
- Doesn't wear down boards
- Must be able to clean polyethylene
- System should not break if water or power cuts out
- Audio and visual cues for when the process is done

Ranking of Needs

Cleanliness of Rafts	1
Reduction of time spent by cleaners	2
Safe to use	3
Easy to use	4
Doesn't wear down boards	5
Reliable	6
Cheap	7
Compactness	8
Automated	9
Speed	10
Avoid consumables	11

Problem statement

Grower needs a fully automated board cleaning system, to reduce employee time spent on cleaning. This system must be compact, must be able to clean multiple boards at once; the operator must be able to leave the system unattended as it runs, and it should be clear when the cleaning process is complete.

Benchmarks

- personal connection Styrofoam machine
- industrial dishwasher
- conveyor belt
- pressure washer
- carwash

Questions

- What is the maximum acceptable amount of water we could use per board.
- Would you prefer a solution that continues to use Sanitol or that does not.
- If pesticides made the solution cheaper or more effective, could it be considered.
- How serious is conserving water and power as a concern.
- Could the need for the boards to be cleaned quickly be solved by having an extra set of boards.
- Is it important that the boards are clean or only sterile
- How many boards may have to be cleaned at once by the system?