Lean, Mean, Microgreen Machine

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Problem: For small-scale microgreen farmers, harvesters are either too expensive or inefficient.

Background:

Most small farmers use knives or scissors to harvest microgreens. This is inefficient. Efficient equipment costs an exorbitant $700.

Solution:

Build an efficient, do-it-yourself harvester at a reasonable cost.

Harvester specifications:

<u>To promote efficiency:</u>

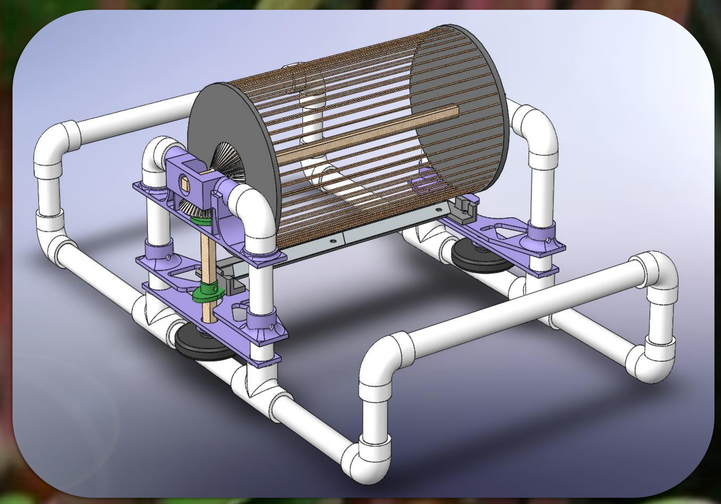
- Oscillating blade
- Rotating barrel

<u>To reduce cost:</u>

- PVC frame
- 3D printed complex parts
- Common razor blades

Decision Matrix:

	Scissors/Knives	Quick Cut Greens Harvester	Hamil Microgreen Harvester	Our prototype
Size	5	3	1	4
Cost	5	3	1	4
Portable	5	3	1	3
Easy Assembly	2	2	1	5
Power Use	5	2	1	5
Efficiency	1	3	5	3
Time spent using tool	1	4	5	3
TOTAL	24	16	15	27



Final Results:

Our harvester has the highest efficiency per unit cost; 105 trays per hour at $105.

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