Stellar Stacker

Long-Term Cold Storage Organizer for Breastmilk

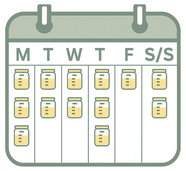
Team MilkyWay

Karrah Hayes, Lexy Meza, Simone McGowan, Michael Olatunji, & Ishita Raghuvanshi

Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University

Background

Breastmilk is "**Liquid Gold**" rich in antibodies that adapt to the baby's need[1]

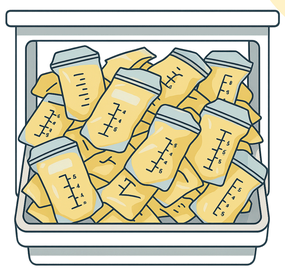


Mothers freeze **10-15 breastmilk bags/week** to sustain feeding [2]

Problem

38% lactating mothers wasted milk due to questionable storage[3]

Warped freezing shape



Burdensome Manual Tracking

Disorganization = Wasted milk

Parents using expressed breastmilk need a simple system that **scales**, **preserves timestamps**, and enforces **first-in first-out use**

Market

$580M

Total Addressable Market[3,4]

Parents x % who freeze milk x # units x cost

= 3,480,000 x 0.68 x 7 x 35 ~**$580,000,000/year**

Servicable Available Market[5]

Total Addressable Market x % working moms

= $580,000,000 x 0.683 ~**$396,000,000/year**

Proposed Solution

Place, set, forget!

LED expiration tracking

Press and Hold to start tracking

Press to view status color

Fits various freezer orientations

Minimizes bag tears

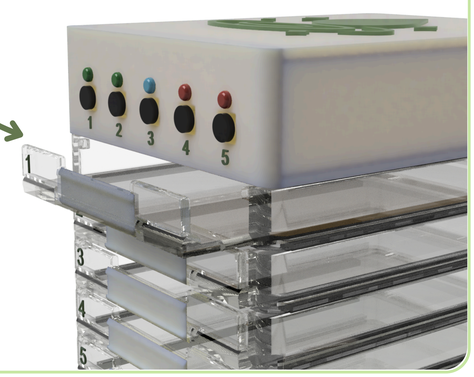
Compatible with leading milk bags

Isolates spills

Stackable modular trays

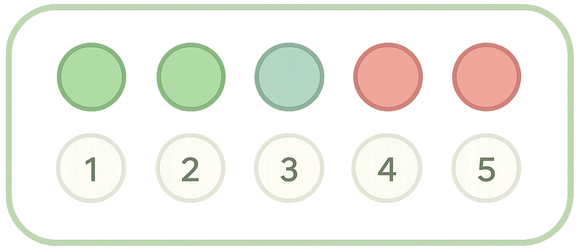
Flat freezing design

Sliding base for easy retrieval



Functionality

Control Panel



Green LED Milk 0-2 months

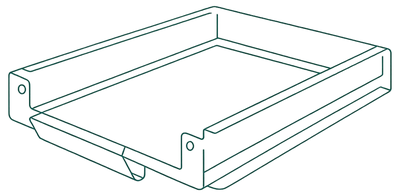
Blue LED Milk 2-4 months

Red LED Milk 4-6 months

Tray

Holds **3** bags of milk (18 oz)

Can hold weight **~8 lbs**



Future Steps

- Increase Loading Capacity
- Seeking Patent
- Further Automate Expiration Tracking

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Scan QR code for numbered citations