



TEN N TENS



TEN N TENS COFFEE

Product Launch

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Prologue

Story of Maknae Hongju



Story of Maknae Hongju

Introducing our Product

10x Coffee Machine



Price | 100\$

Beverages | 4

Users | ∞

Happiness | 10x

10x Coffee Machine is a **Customizable Coffee Machine Based on Face Recognition**

"Give Everyone their Favorite Coffee!"

Users can get their favorite coffee just by stading in front of the 10x coffee machine.



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10X Coffee Machine

DEMONSTRATION

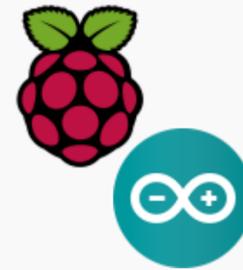
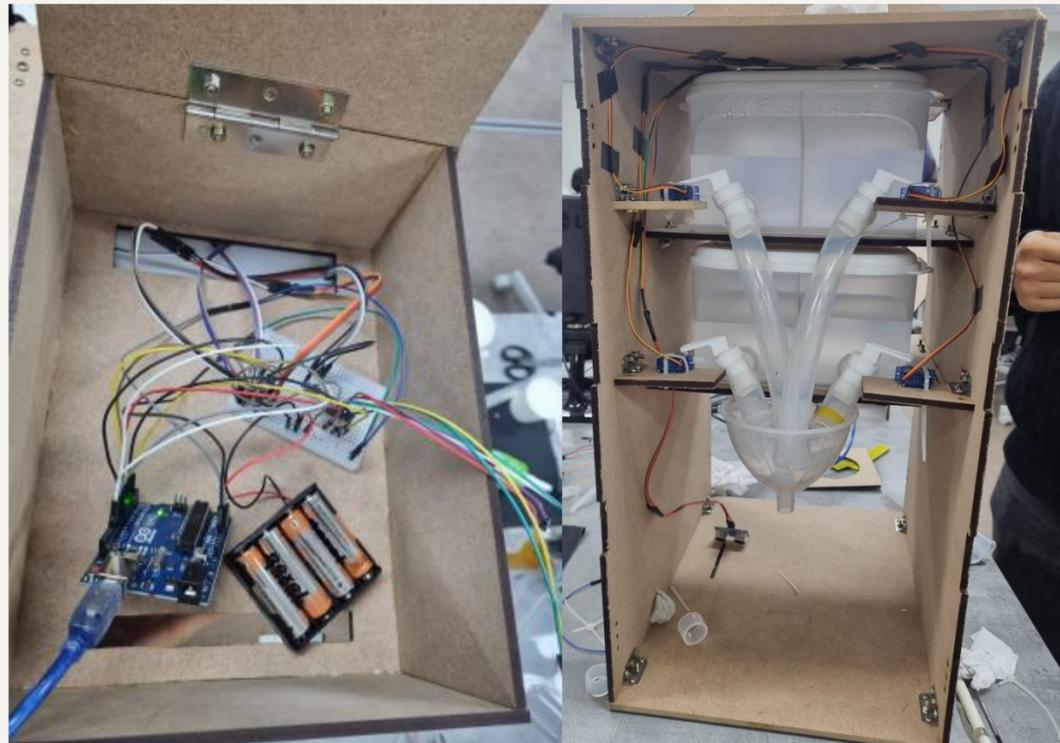
Mechanism

Key Technology



Mechanism

Mechatronics



Customized Control Signal

Determine the ratio of beverage using data saved in Raspberry Pi
Check if cup is ready using ultrasonic sensor



Face Recognition

Using Camera and Open CV tool, verify the user

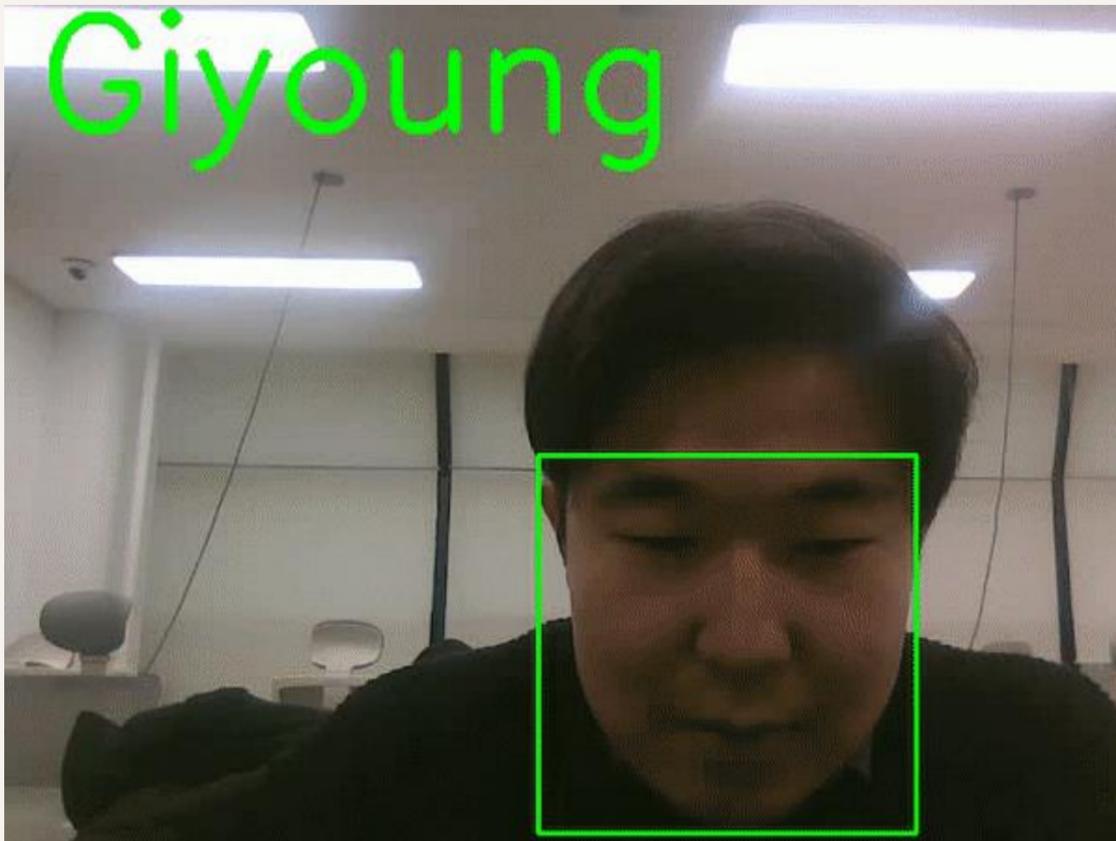


Control Valve

Control Valve using Servo Motors, pouring beverages

Mechanism

AI



Raspberry Pi Camera

2\$ Cheap Camera with 1080×720 pixel resolution



Image Dataset

Need a single face images of user to train

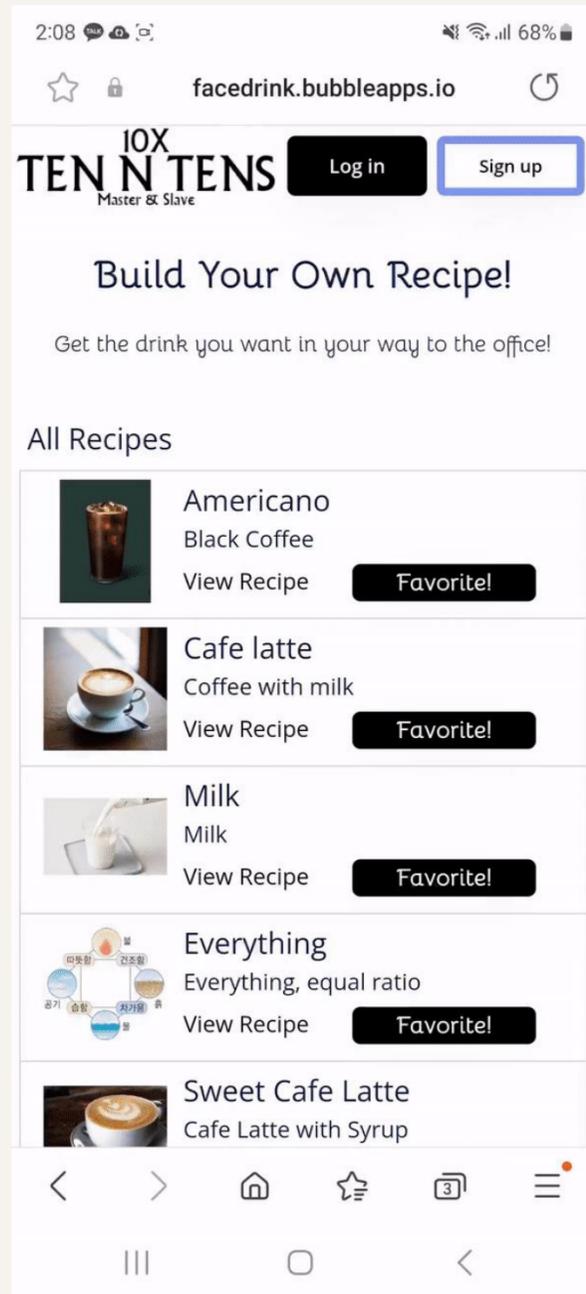


Open CV

Python library for computer vision

Mechanism

Application



Bubble

Tool for making basic mobile applications



Photo Data

Users can upload their photos for training

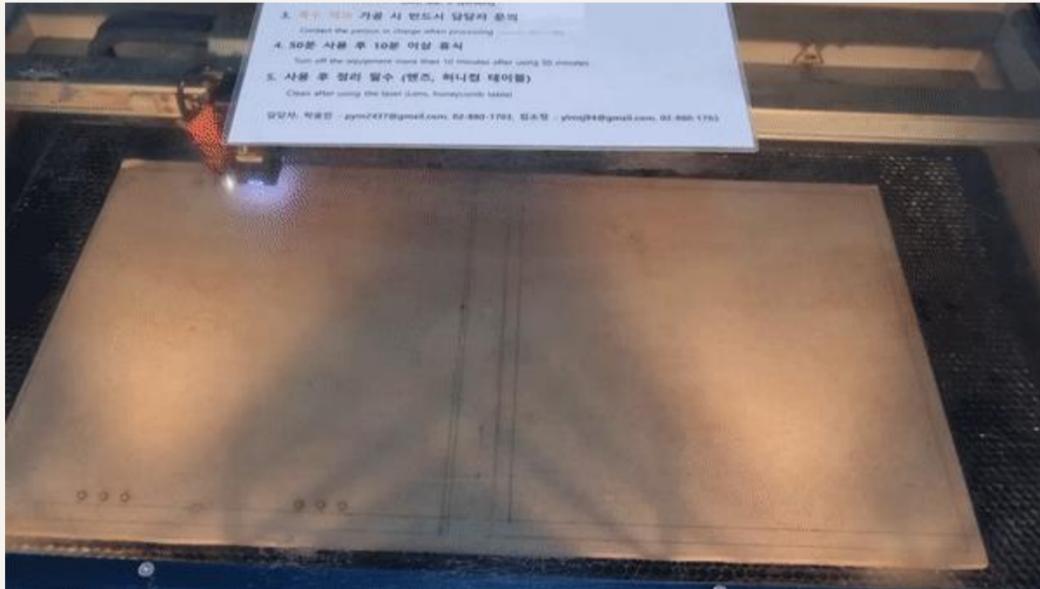


Select Beverage

Users can select their beverages

Mechanism

Manufacturing



Laser Printer

Strong tool for making exterior of luxurious coffee machine



Solidworks

3D CAD tool made for designing coffee machine

Market Size

Domestic Coffee Machine Market

국내 성인 1인당 커피 소비량

※()안은 세계 성인 평균 대비

연간 353잔(약 2.7배)



국내 성인 평균

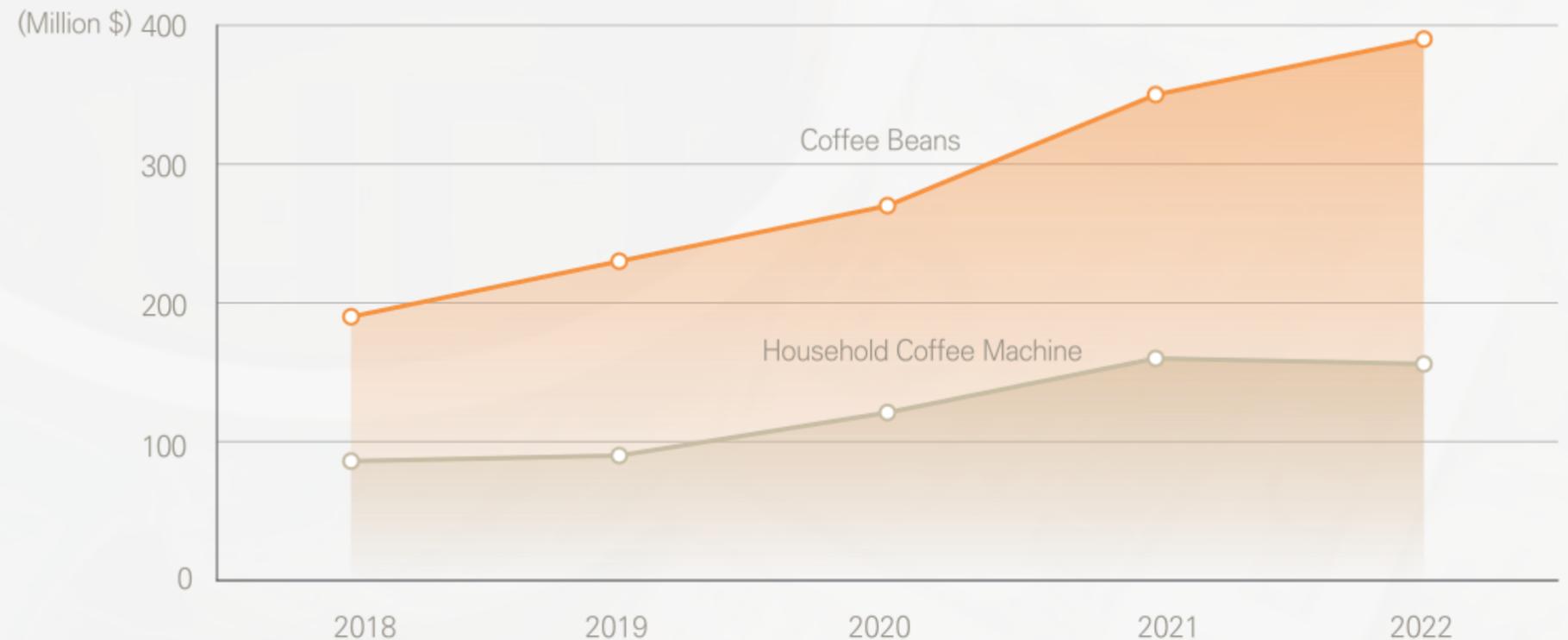
연간 132잔



세계 성인 평균

자료: 현대경제연구원

The JoongAng



Domestic Coffee Machine Market is **HUGE** and even **increasing**

Competitive edge

Why is 10x Coffee Machine so special?



Large Choice of Beverage

Satisfies the tastes of many people: Office, Family
Users can choose different beverages anytime



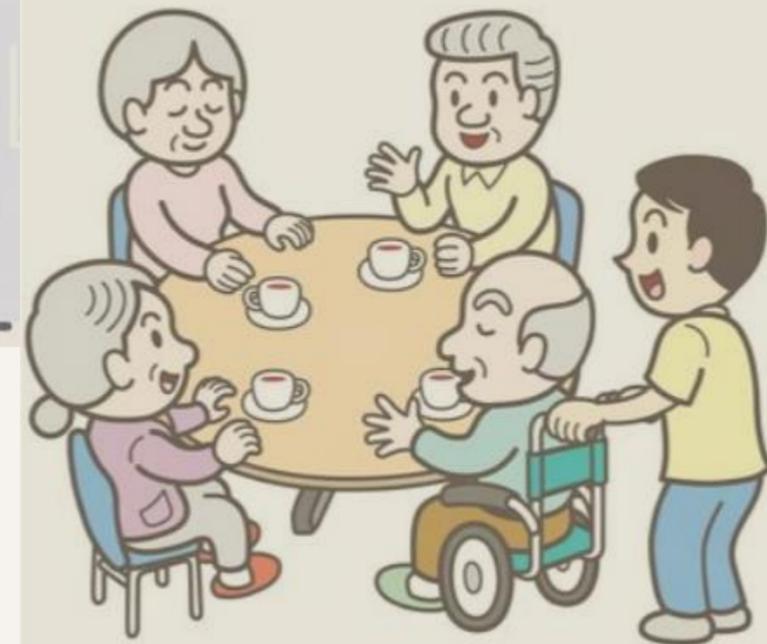
Time-Efficient and simple control

Users takes much less time selecting, or draining their coffee
Very simple control: one initial application setting is all!



Super Low Cost

10x Coffee Machine is twice as cheap as commercial coffee
Machine



Competitive edge

Commercial Strength of 10x Coffee Machine



Low Production Cost

Item	#	Price
Container	2	7\$
Hose	1	7\$
Wood	1	10\$
Ultrasonic sensor	1	1\$
Servo Motor	4	1\$
Camera	1	2\$
Totla Price		38\$



#1 Coffee Machine on Coupang

230\$



#1 Vending Machine on Coupang

300\$



10x Coffee Machine

100\$

Twice cheaper than commercial coffee Machine

Competitive edge

Comparison with Existing Patent

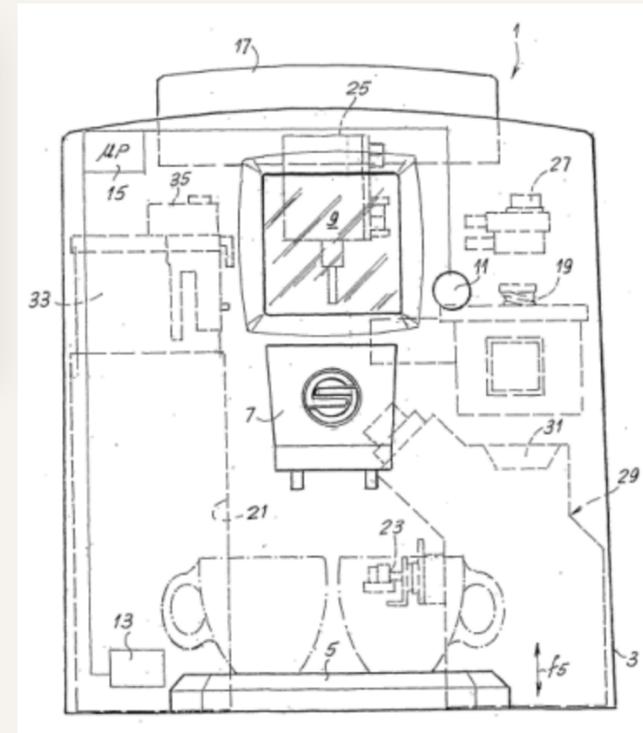


Similar Patent

음료들을 제공하기 위한 머신 (Machine for Dispensing Beverages)
10-2011-7004191

Claim 1: A coffee machine that **recognizes users** and functions related to the user information

Claim 3, 4: Machine that uses **fingerprints** or capillaries in fingertips to verify user



Patent 10-2011-7004191

Fingerprint Reader: 60\$



10x Coffee Machine

Raspberry Pi Camera: 2\$

30 times cheaper to verify users



One More Thing...

Who Are We?

Our Biggest Strength

TEN N TENS MEMBERS



Kim Hongju

Manufacturing Engineer



Song Chani

Mechatronics Engineer



Jung Jiwook

Application Developer



Cho Juhyun

3D Modelling Engineer



Joo Giyoung

AI Developer

TEN N TENS pursue to make a **10x happier world** by producing cost-effective products

References

- | 백민정, "1인당 연간 커피 353잔 마셔...코로나 후 입맛 더욱 고급화" 중앙일보, 2021.11.08
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- | 코닌클리케 필립스 엔.브이., "음료들을 제공하기 위한 머신 (MACHINE FOR DISPENSING BEVERAGES)", 1020117004191 (2009.07.07)



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THANK YOU
For your attention



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Appendix

Demonstration Video

