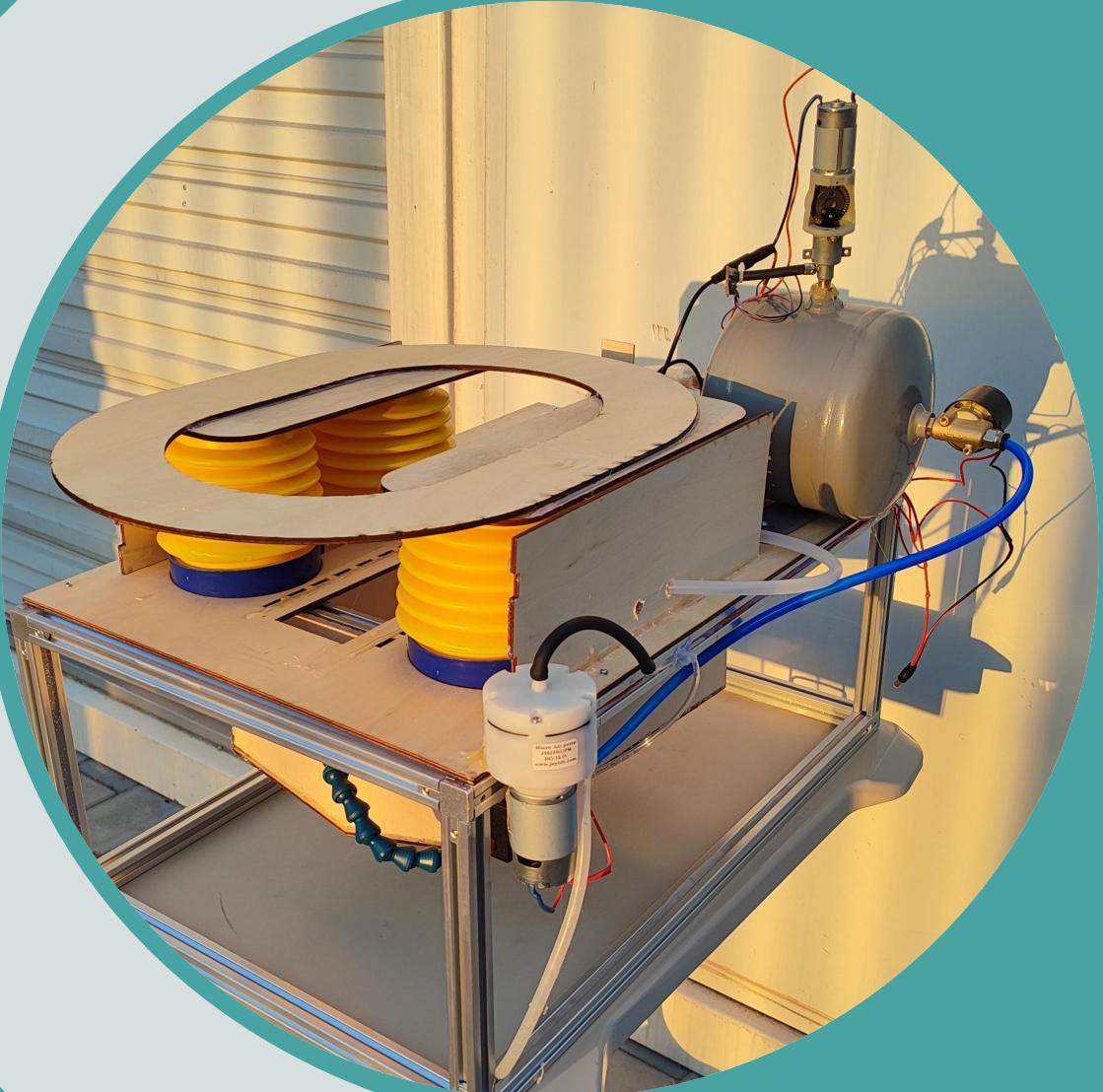




**"ECO-FLUSH,
NOTHING LESS"**

ECO-FLUSH

XUPENG BAI
MOHAN AI





OUR COMPANY



CEO
MOHAN AI

- Website building
- Business part
- Coding



CTO
XUPENG BAI

- Design the structure
- Circus work
- Do survey

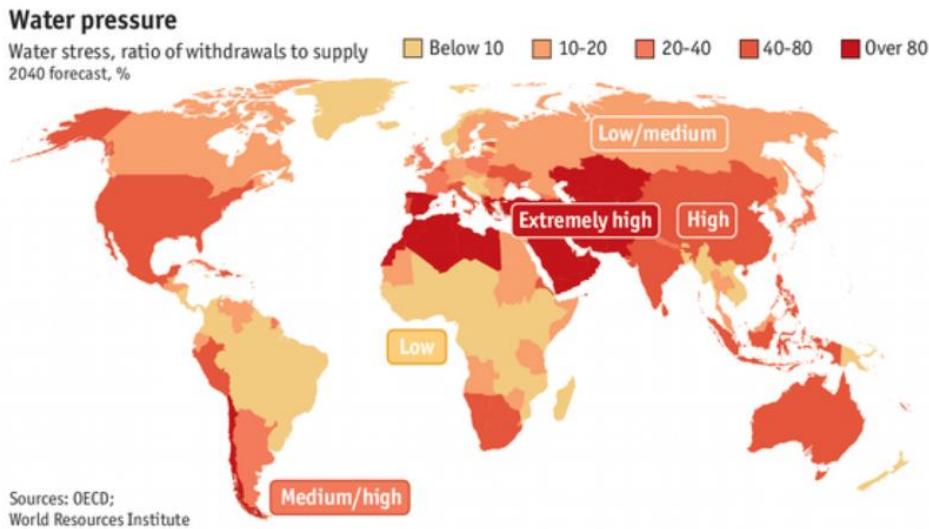


SITUATION

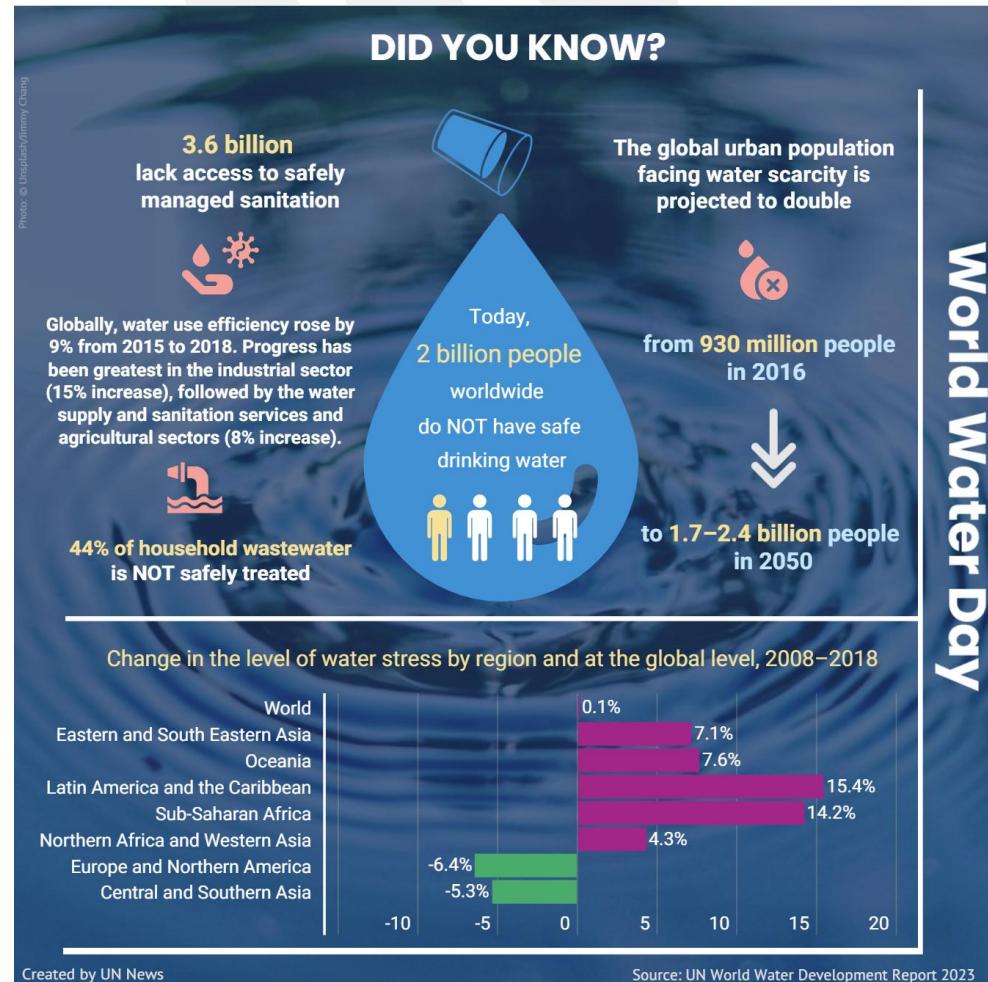
---WATER RESOURCES

Problem:

- The global water resource situation is extremely dire, with freshwater scarcity posing a threat to human health and livelihoods.



- Toilet flushing accounts for over 30% of household water usage, leading to significant redundant waste.

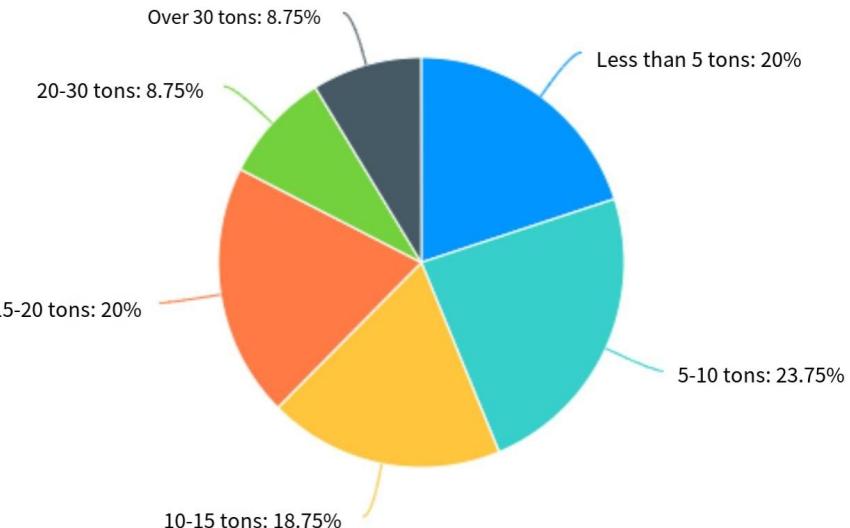
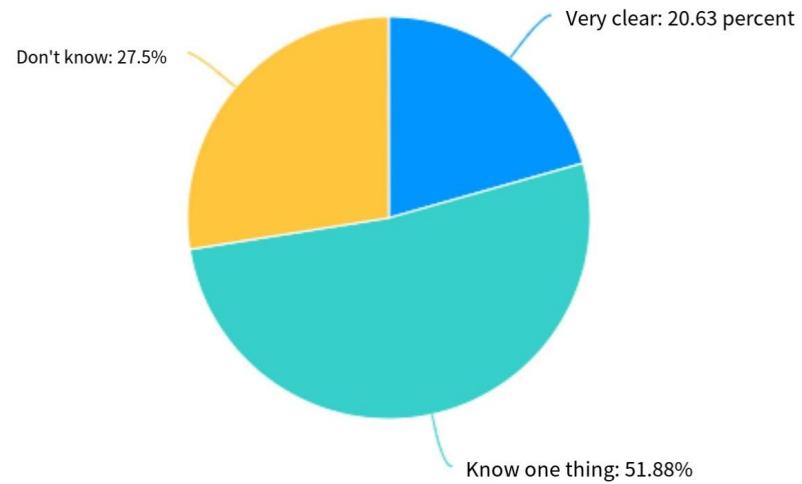




QUESTIONNAIRE

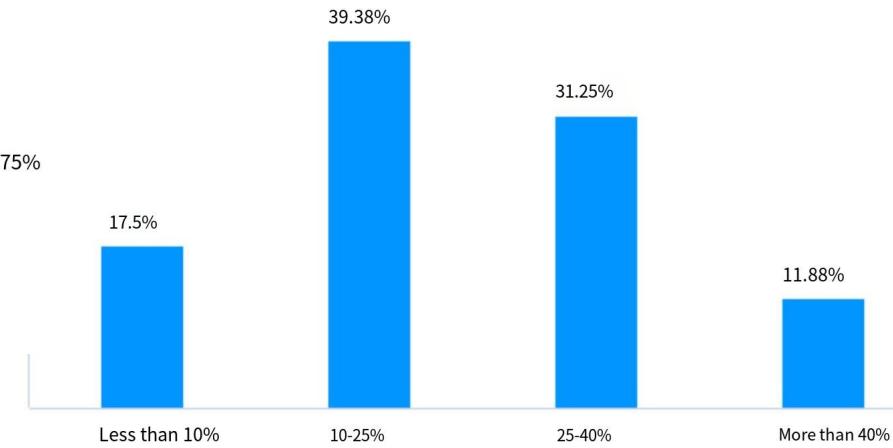
---A SURVEY ABOUT BASIC INFORMATION

How well do you know the water situation in the world today?



Your family's total water consumption in a month(ton)?

The percentage of toilet flushing in total household water consumption?





OUR INNOVATION

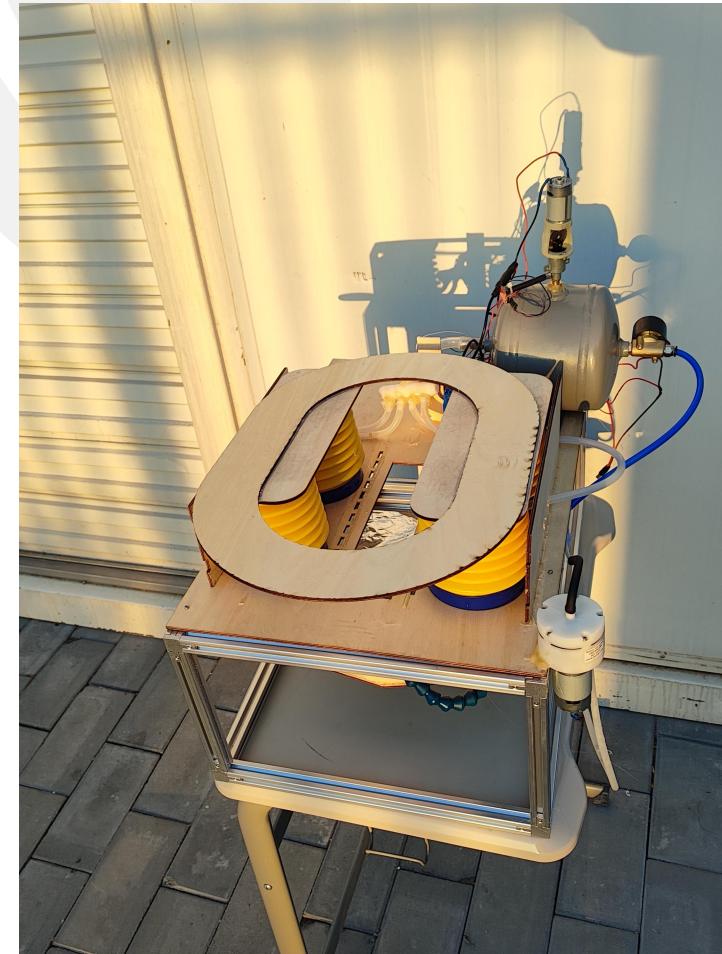
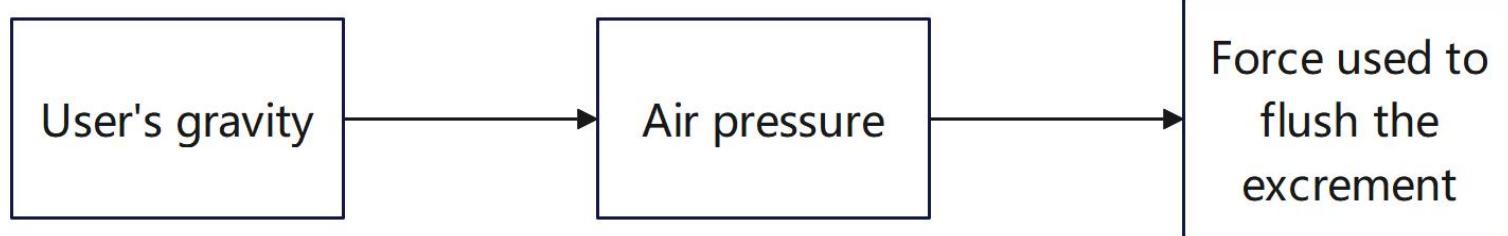
---A WATER-SAVING TOILET

Solution:

“GRAVITY-POWERED WATER-SAVING TOILET”

- By harnessing the pressure exerted on the toilet seat when a person sits down, compressed air is generated to provide greater flushing force for the toilet.

Core





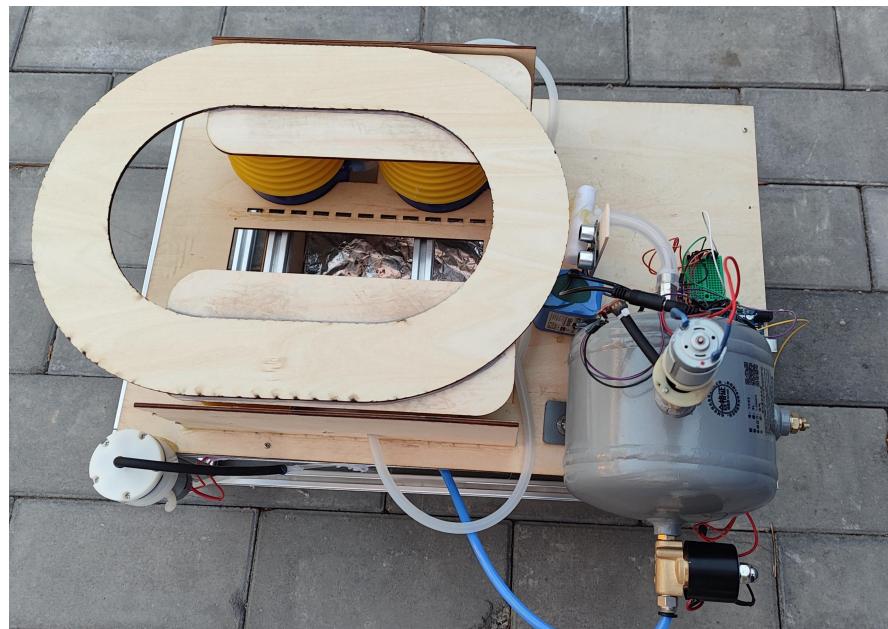
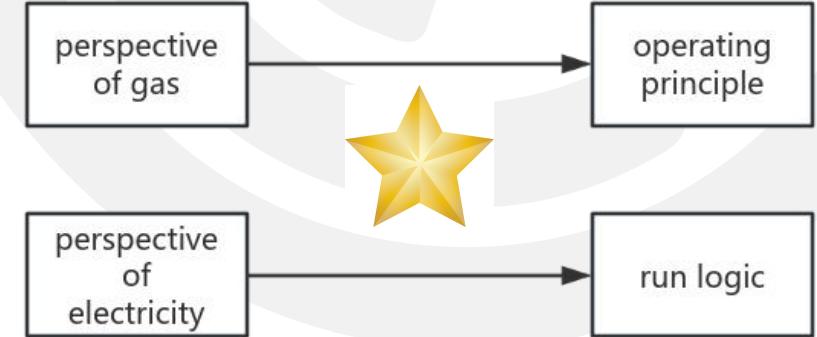
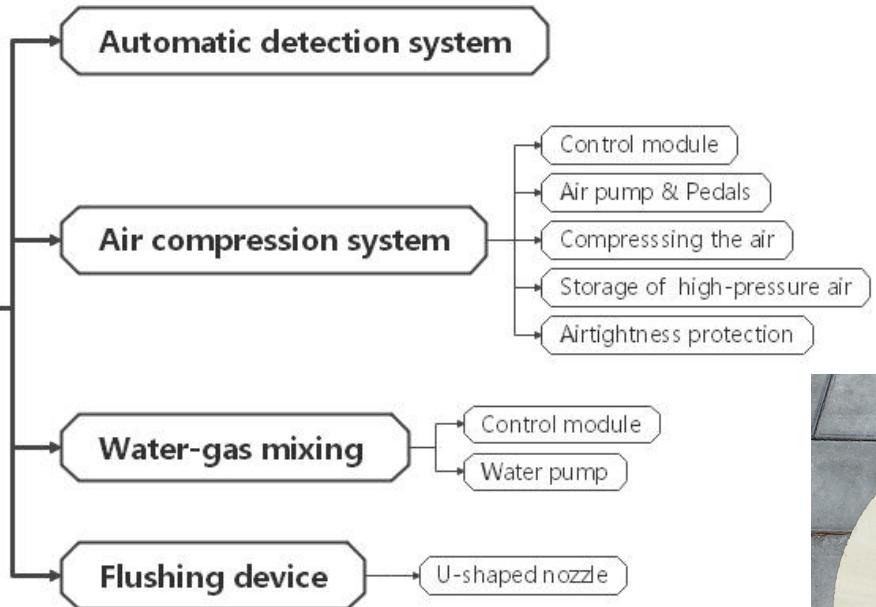
TECHNOLOGY OVERVIEW





TECHNOLOGY ROUTE

---OVERALL DESIGN



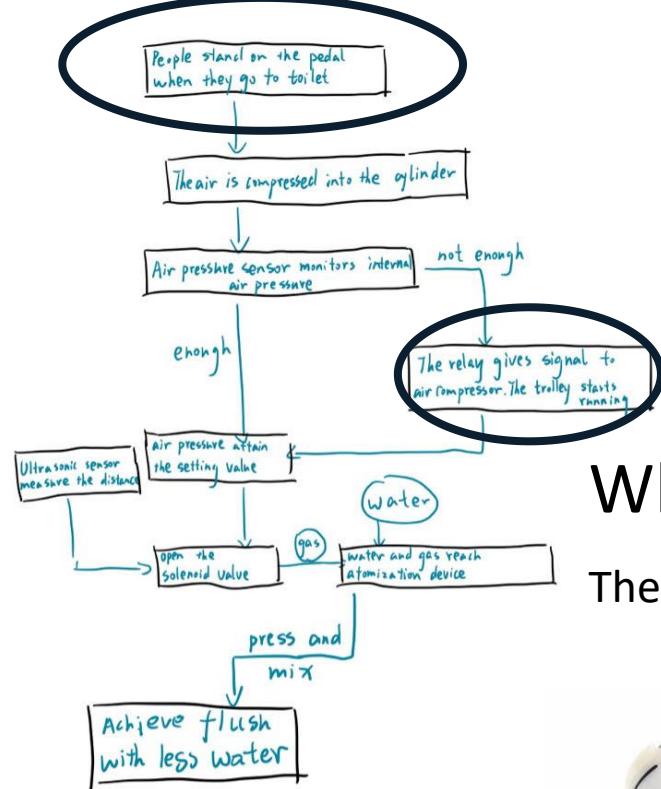
Advantages:

- Efficient (>70%)
- Concise design



TECHNOLOGY ROUTE

---COMPRESSED AIR STORAGE



Inflator:

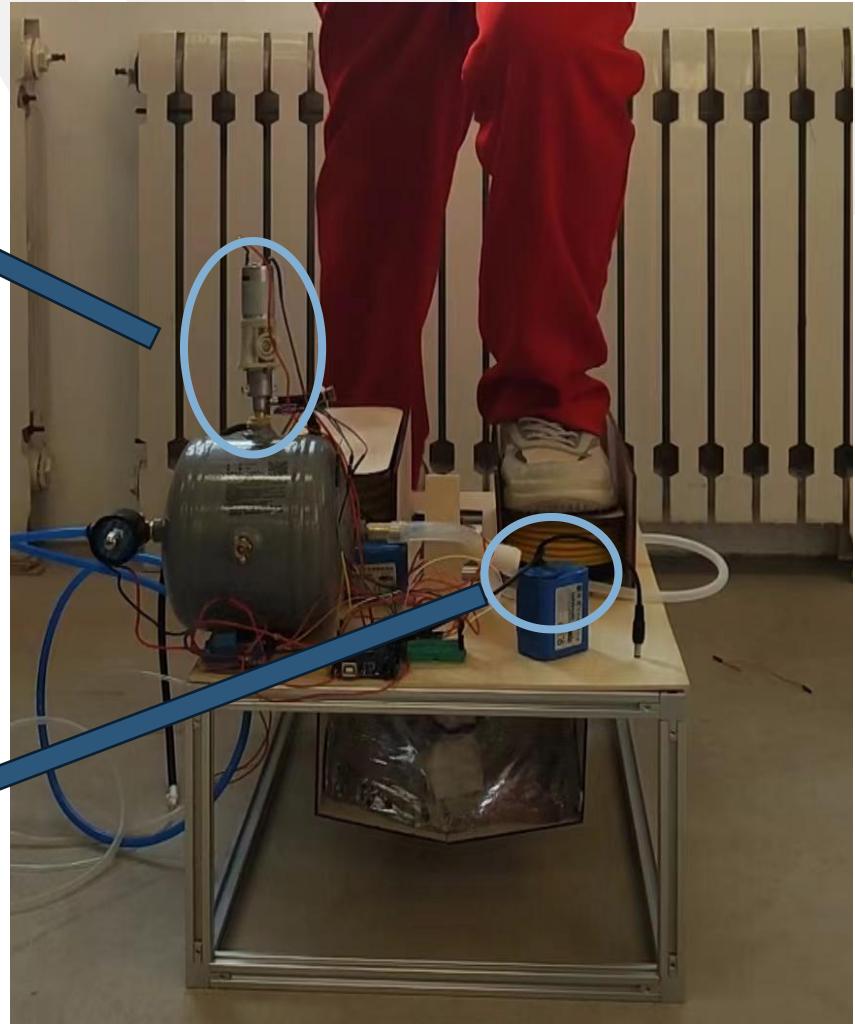
- Main contribution to increase the air pressure

What if the air pressure is still not enough.....
The AIR PUMP will assistant



Air pump:

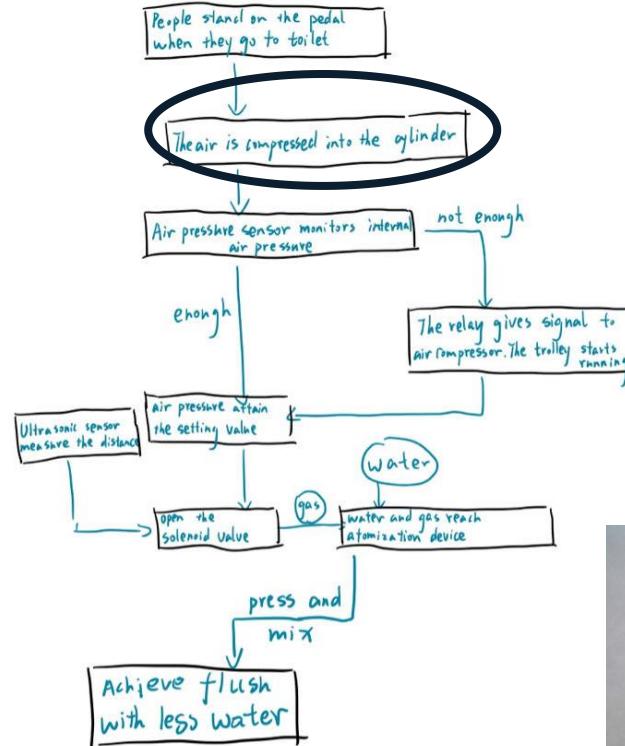
- Keep squeezing air into air container





TECHNOLOGY ROUTE

---COMPRESSED AIR STORAGE



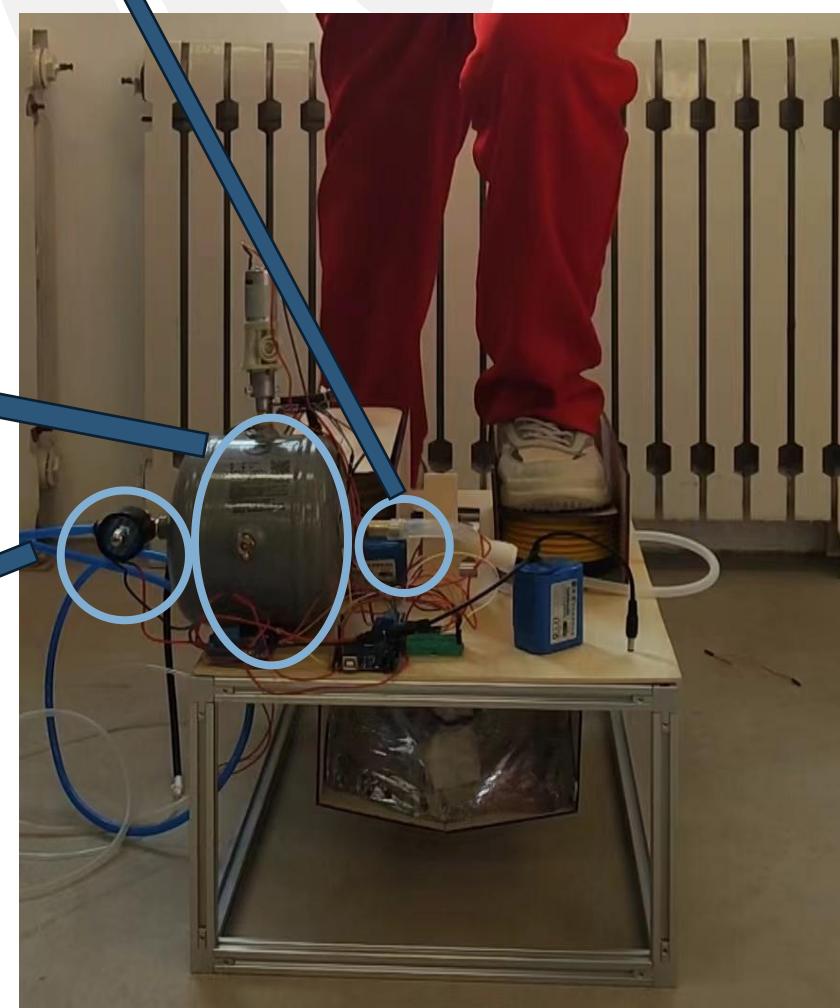
Air container:

- To keep the compressed air for a while.



Check valve:

- Prevents gas from flowing back out of the container



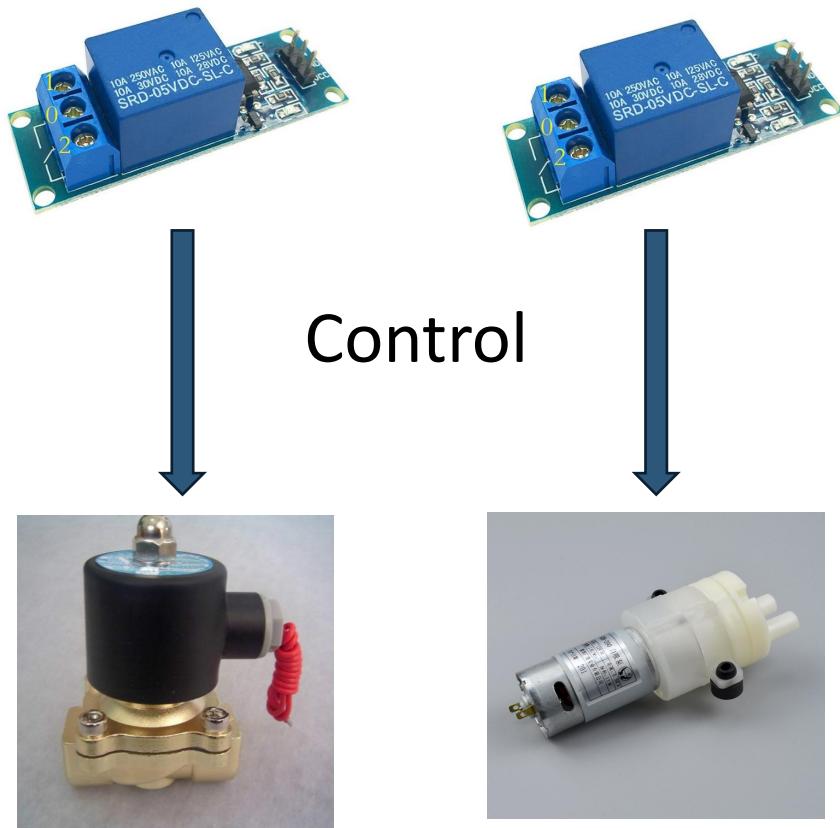
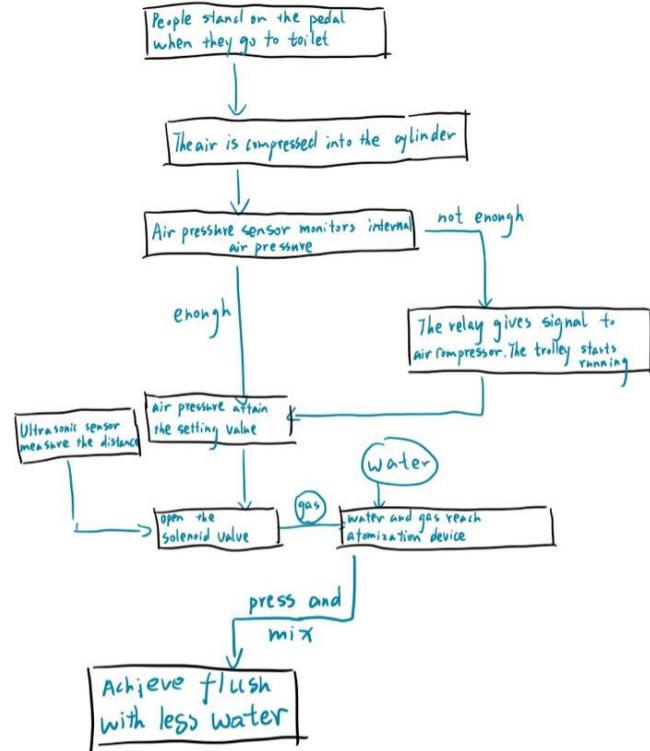
Solenoid valves:

- Flexible opening and closing, regulating the opening and closing of the gas path

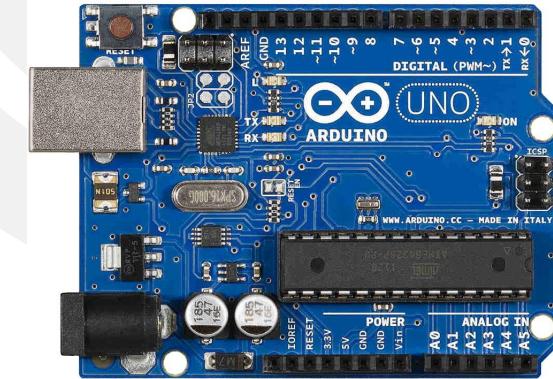


TECHNOLOGY ROUTE

---AUTOMATIC CONTROLLING SYSTEM



Control



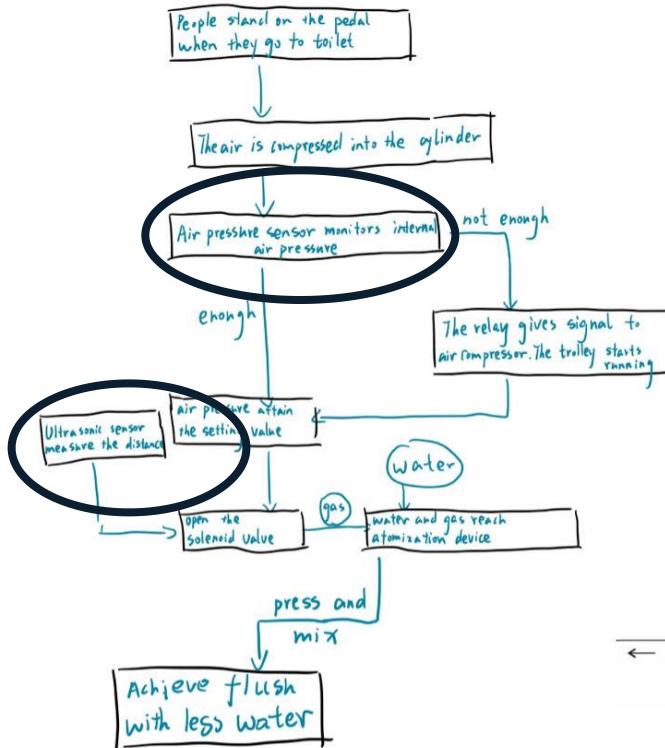
Arduino Uno Motherboard:
• Control all the stuff

Electromagnetic relay:
• As an automatic control switch,
it can safely control other
equipment



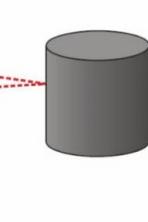
TECHNOLOGY ROUTE

---AUTOMATIC CONTROLLING SYSTEM



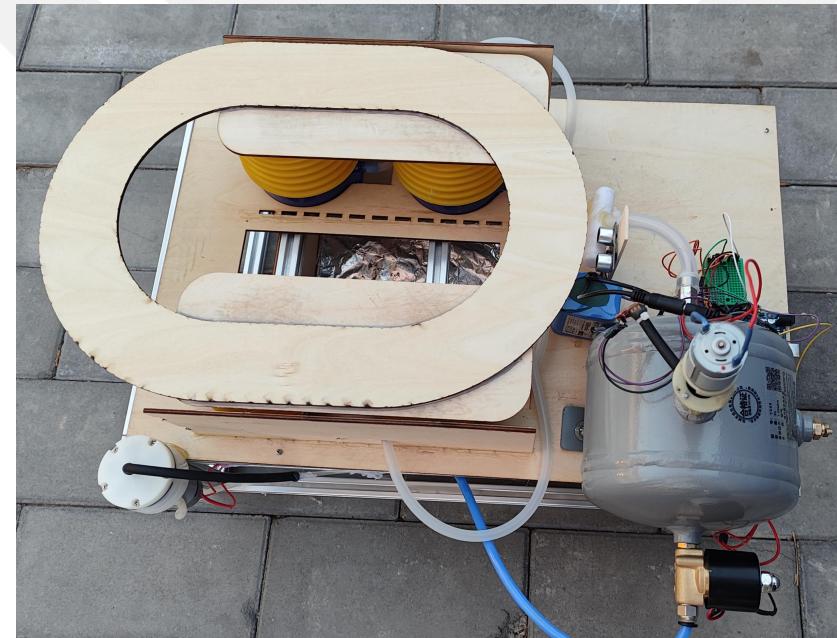
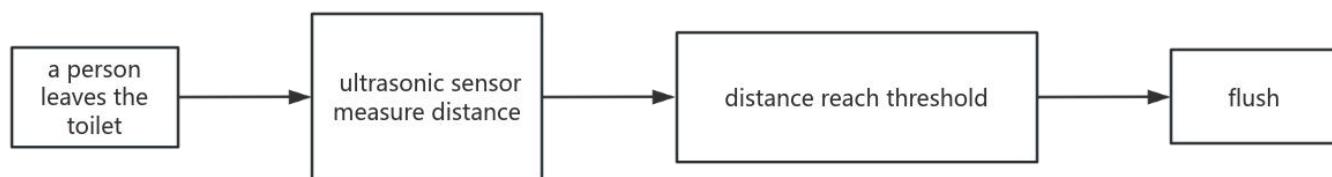
Air pressure sensor:

- Measure the pressure inside the air container



Ultrasonic sensors:

- Detect whether there people are using toilet



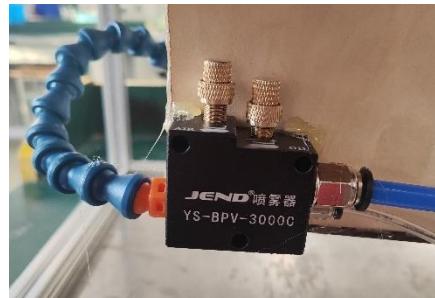
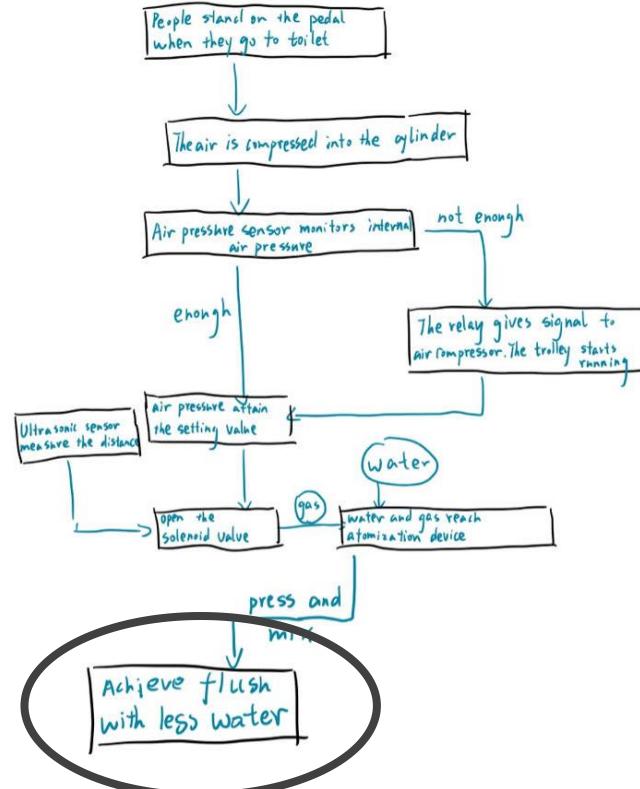
TECHNOLOGY ROUTE

---FLUSHING DEVICE



Q: Why do we need so much water to flush?

A:To provide an enough force to the excrement.



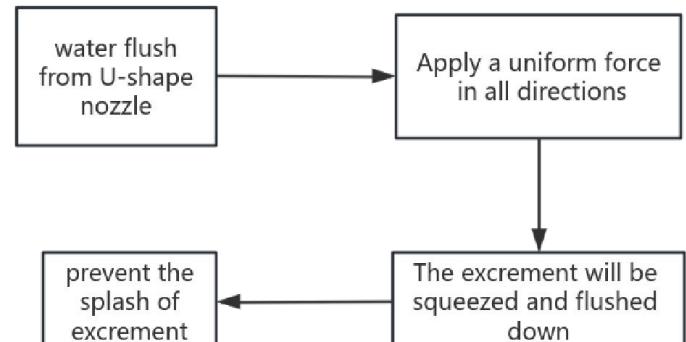
Accumulation
of quantity

Water-gas mixer:

- Use gas pressure to assist instead of simple water accumulation

U-shaped Nozzle:

- Prevent the splash of excrement



Water Efficient!



TECHNOLOGY ROUTE

---PROPORTIONAL SIMULATION

Experiment:

- 10g “excrement”
- 49ml water

Reality:

- 300-400g excrement
- 7000ml water



That is.....

About **70%** of water is
reduced!



BUSINESS PLAN

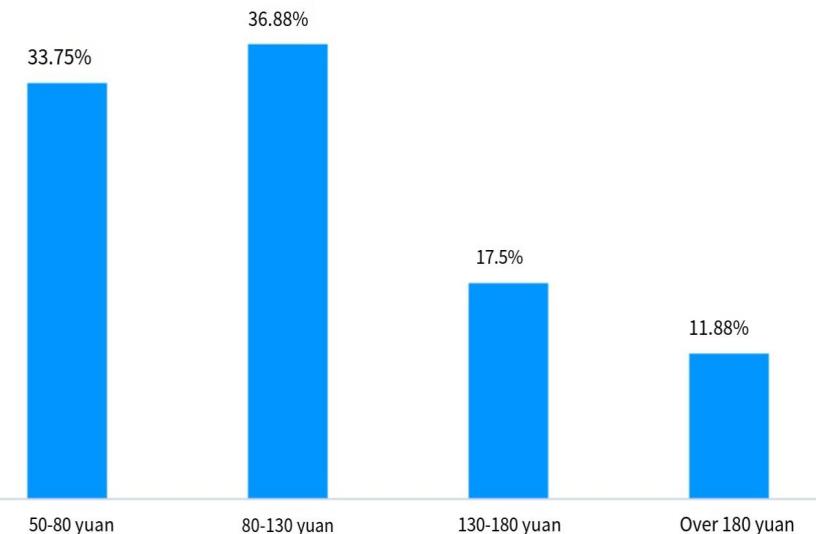




QUESTIONNAIRE

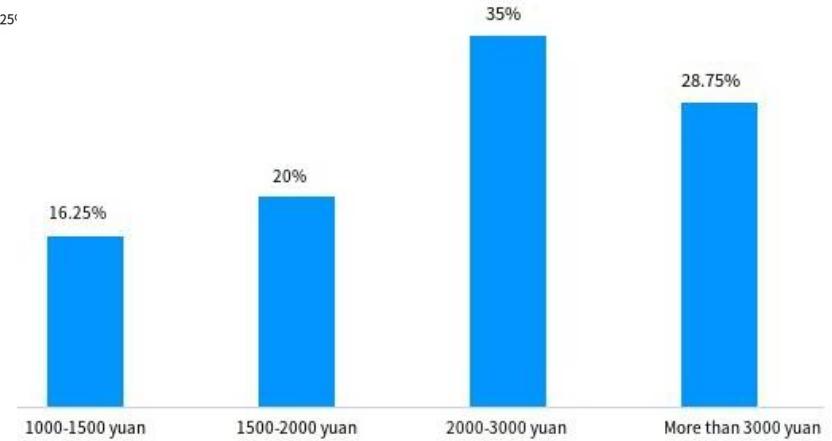
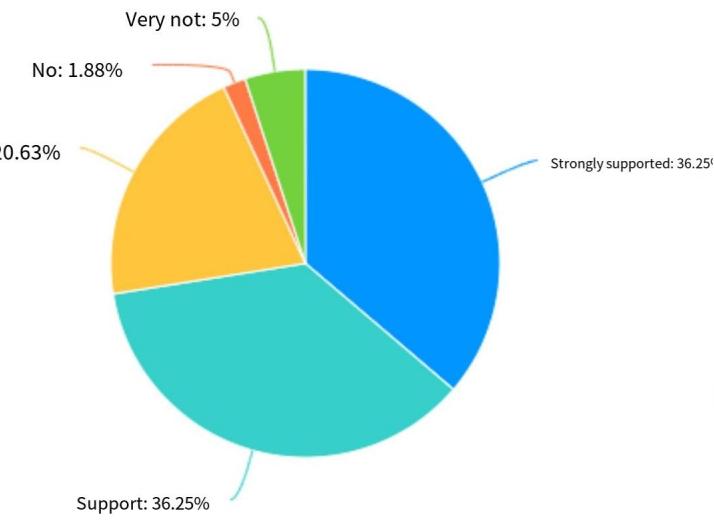
---A SURVEY ABOUT BASIC INFORMATION

Your family's total cost in water in a month(yuan)?



If there is a new water-saving toilet(saving 70% water),would you like to buy and use it?

What is the price you can accept of a new type of toilet
(70% water saving but more expensive than ordinary toilets)





TOILET MARKET ANALYSIS

---MARKET OVERVIEW

GLOBAL MARKET

Estimated at \$2 billion in 2020, projected to reach \$3 billion by 2025 with an 8% CAGR

AWARENESS

According to our investigation, over 60% of consumers are willing to pay more for eco-friendly home products

DOMESTIC MARKET

China's market was about \$500 million in 2020, expected to hit \$800 million by 2025, with a 10% CAGR, fueled by green building and energy-saving policies

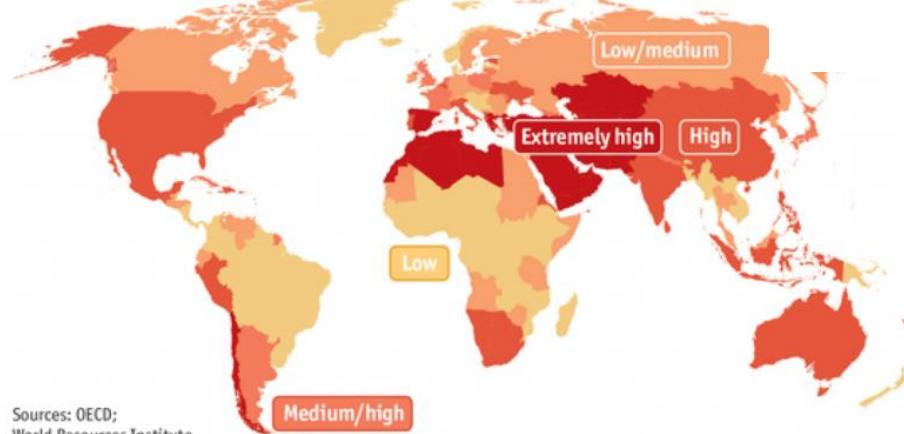
SEGMENTS

Residential users value efficiency and cost, while commercial users focus on durability and standards

Water pressure

Water stress, ratio of withdrawals to supply

2040 forecast, %

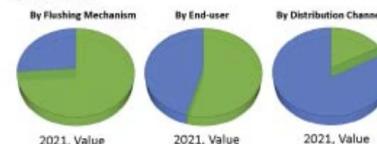


Sources: OECD;
World Resources Institute

Global Toilet Market

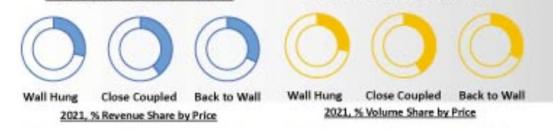
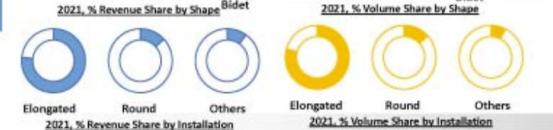


- Drivers**—
 - Growth in construction industry
 - Increase in initiatives and regulations by governments with respect to hygiene and sanitation
 - Restraints—High cost of installation and maintenance
 - Opportunities—Manufacturing of smart toilets with better functionalities



2021, % Revenue Share by Product Type

2021, % Volume Share by Product Type





COST BREAKDOWN

MARKET TRENDS

Innovation: Low-flow flush and intelligent water control are becoming standards.

Policies: Global incentives for water-saving products support market growth

CHALLENGES

Raising awareness and competing with established brands

TARGET MARKET

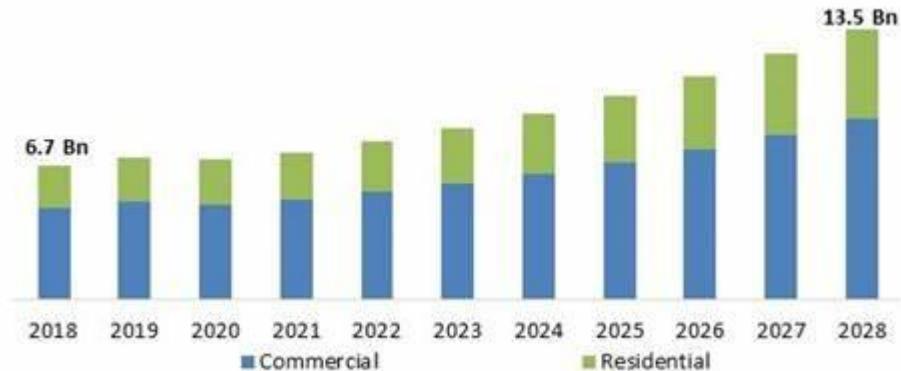
Consumers: Targets environmentally conscious households, sustainable enterprises, and policy-supported public facilities

OPPORTUNITIES

Growing demand for eco-products and supportive policies offer growth potential for innovative entrants

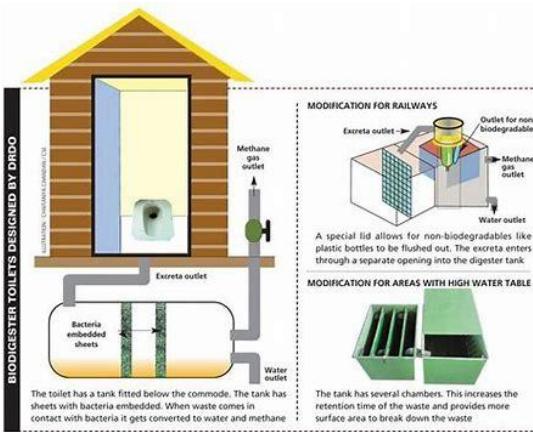


Smart Toilet Market Size, By Application, 2018 - 2028





EXISTING COMPETITORS



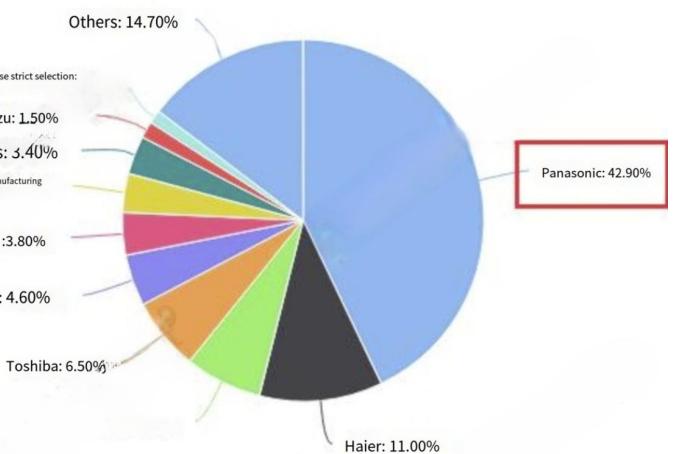
Competitive Analysis For Current Brands

Competitors:

Brands like TOTO, Kohler, and Geberit.

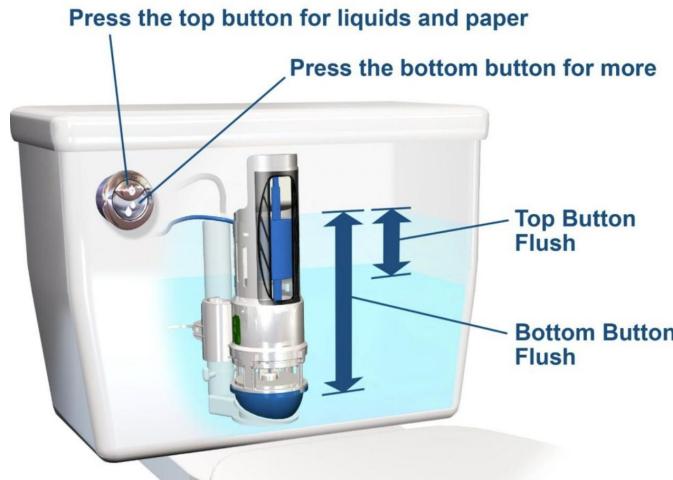
Opportunities:

Newcomers can innovate in water-saving technology and target niche markets.



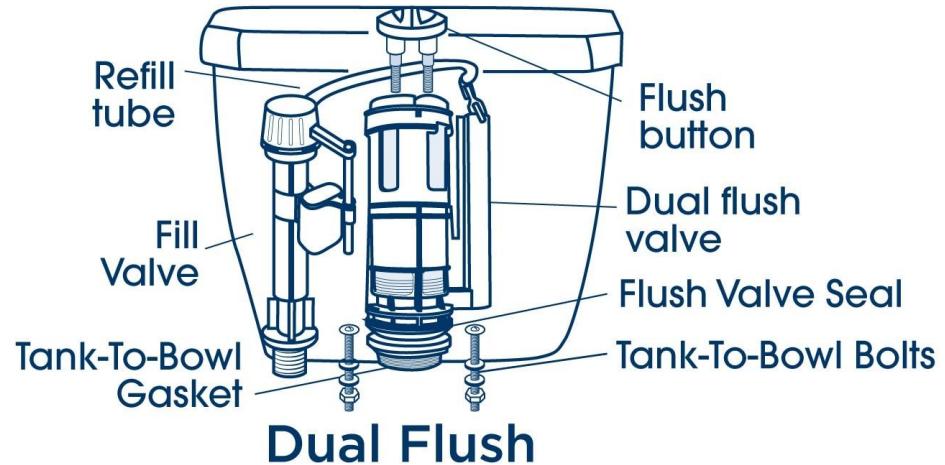


INNOVATIVE COMPETITORS



LOW-FLOW WATER SENSE TOILETS

- Incomplete flushing
- Staining
- Odor: They can leave bad smells behind



DUAL FLUSH SYSTEMS

- Leaks
- Maintenance needs
- Installation challenges



WATERLESS COMPOSTING TOILETS

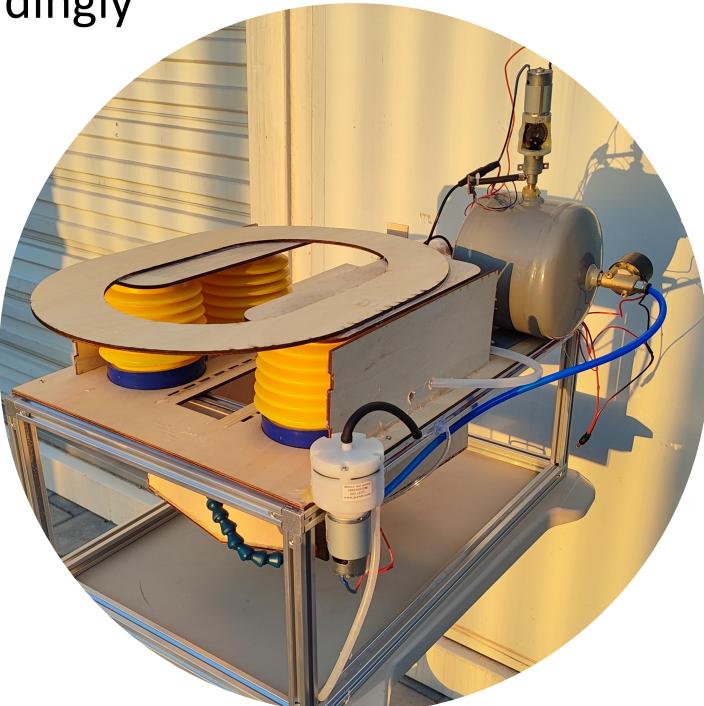
- Smells bad
- Maintenance
- Capacity
- Cost



MARKET STRATEGIES

Second Generation Product Improvements and Overview

- Circuit Integration
- Material Upgrade
- Intelligent Water-Saving Technology
- Measure the weight of the user and adjust water displacement accordingly



Third Generation Product Improvements and

Overview

- Full Smart Integration, the use of CNN network.
- Remote Control
- Sustainable Materials
- Overview



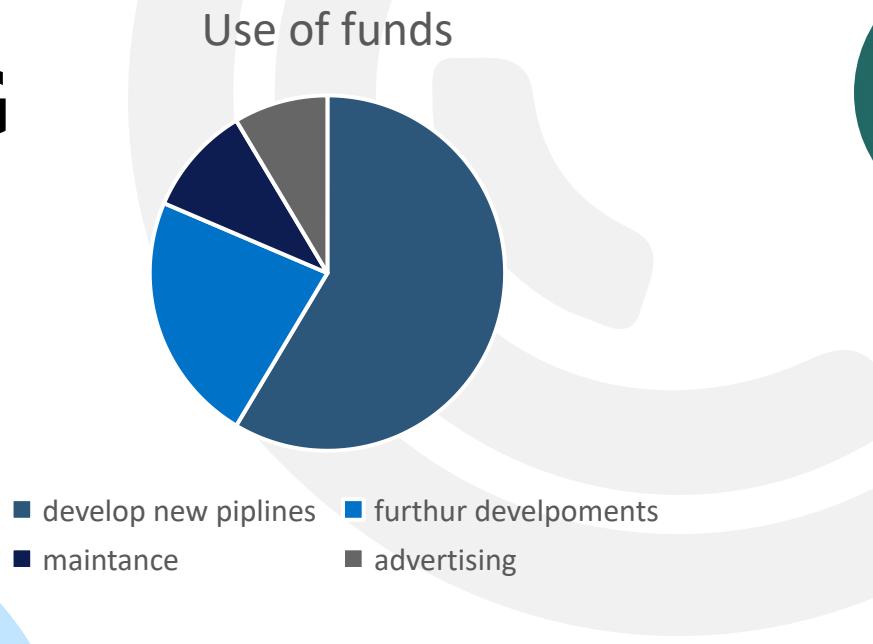
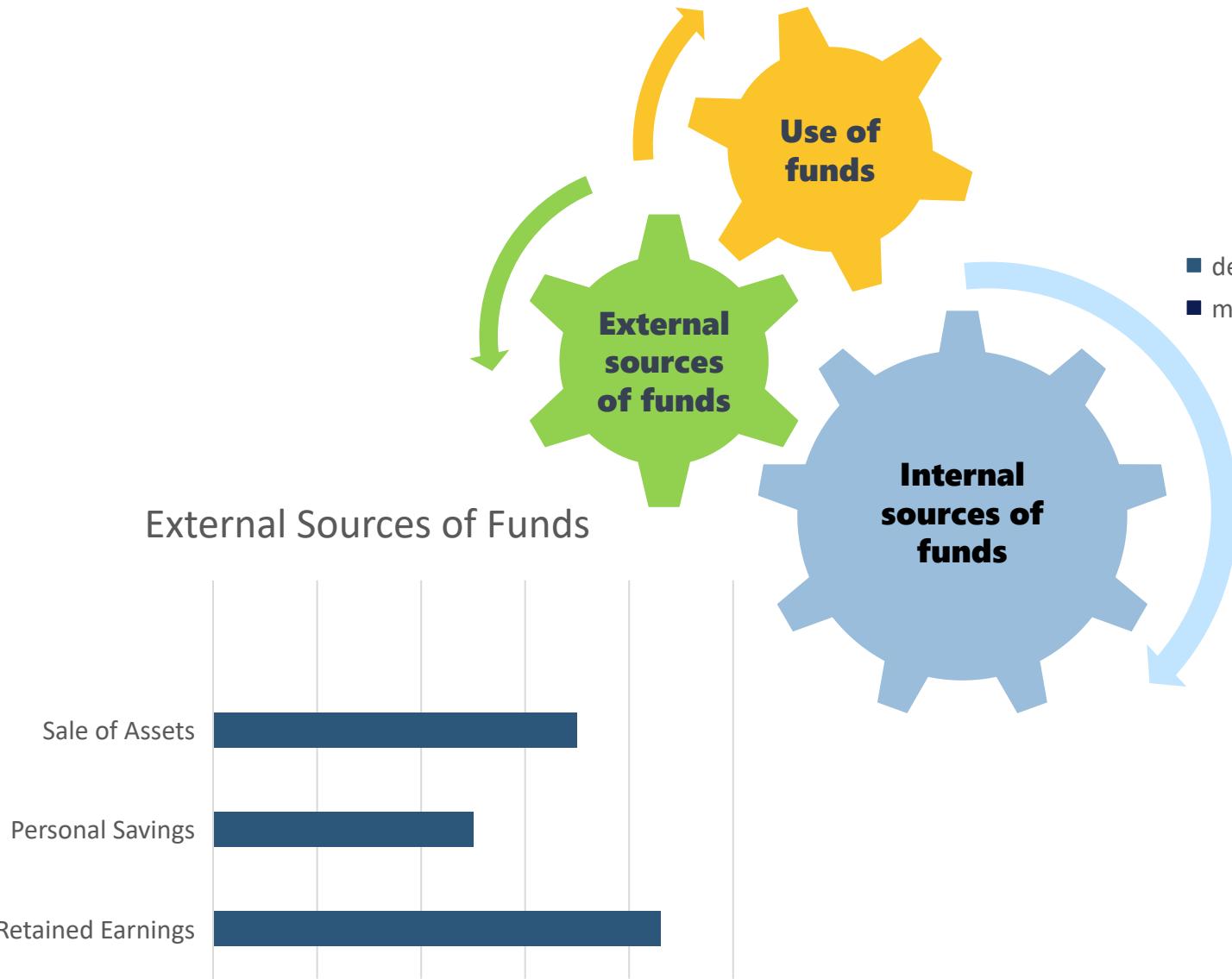
BUSINESS MODEL

---DATA AND PREDICTION

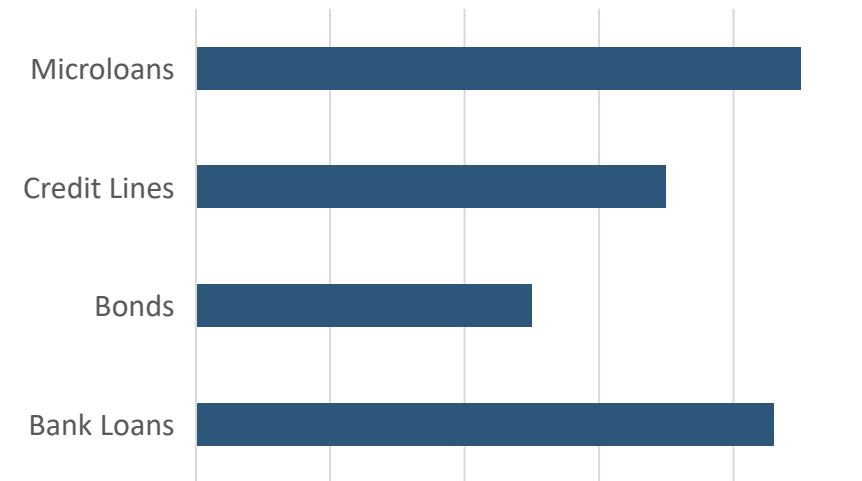
Date	2024/7/1	2025/1/1	2025/7/1	2026/1/1	2026/7/1
Total Income(\$)	925,000.00	1,450,000.00	2,600,000.00	5,000,000.00	10,000,000.00
Sales(Units) (\$)	10000	20000	40000	80000	1,60000
Sales Income(\$)	500,000.00	1,000,000.00	2,000,000.00	4,000,000.00	8,000,000.00
Service Income(\$)	125,000.00	250,000.00	500,000.00	1,000,000.00	2,000,000.00
Investment(\$)	300,000.00	200,000.00	100,000.00	-	-
Total Cost (\$)	780,000.00	1,444,000.00	2,209,200.00	3,141,560.00	4,352,308.00
R&D investment(\$)	500,000.00	1,000,000.00	1,500,000.00	2,000,000.00	2,500,000.00
Production Cost(\$)	80,000.00	144,000.00	259,200.00	466,560.00	839,808.00
Operation Cost(\$)	200,000.00	300,000.00	450,000.00	675,000.00	1,012,500.00
Gross Profit(\$)	145,000.00	6,000.00	390,800.00	1,858,440.00	5,647,692.00
Profit After Tax(\$)	7,250.00	300.00	19,540.00	92,922.00	282,384.60
Profit Margin(\$)	137,750.00	5,700.00	371,260.00	1,765,518.00	5,365,307.40
Market share	0.1%	0.2%	0.3%	0.7%	1.6%
Unit price	5000	3000	2000	4000	5000
Unite cost	800	~	~	~	~
First year sales volume	100				
Annual growth rate	40%				
Operating fee growth rate	50%				
Price decrease per year	10%				
Service fee percentage	25%				
Tax rate year 1-3	5%				
Tax rate year 4-6	17%				



CUSTOMERS & FUND RAISING

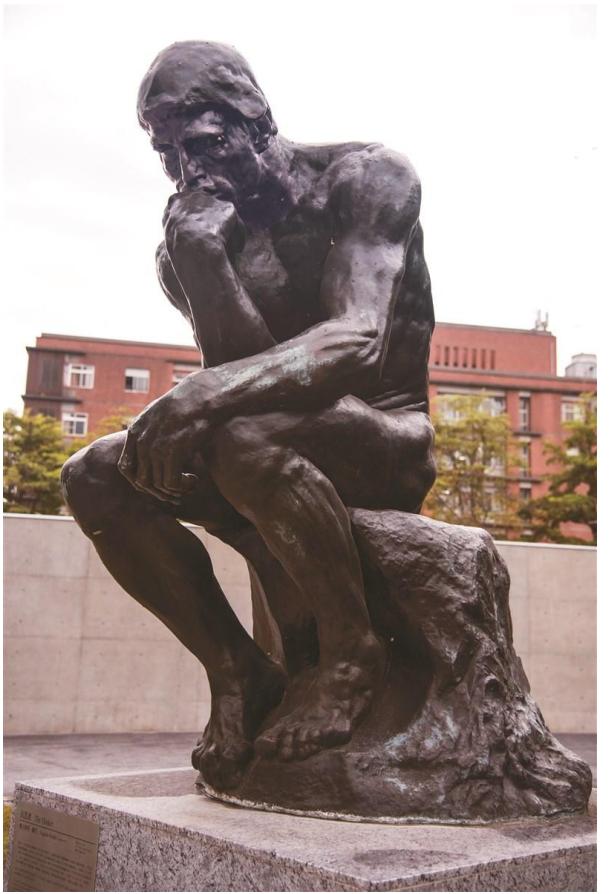


Internal Sources of Funds



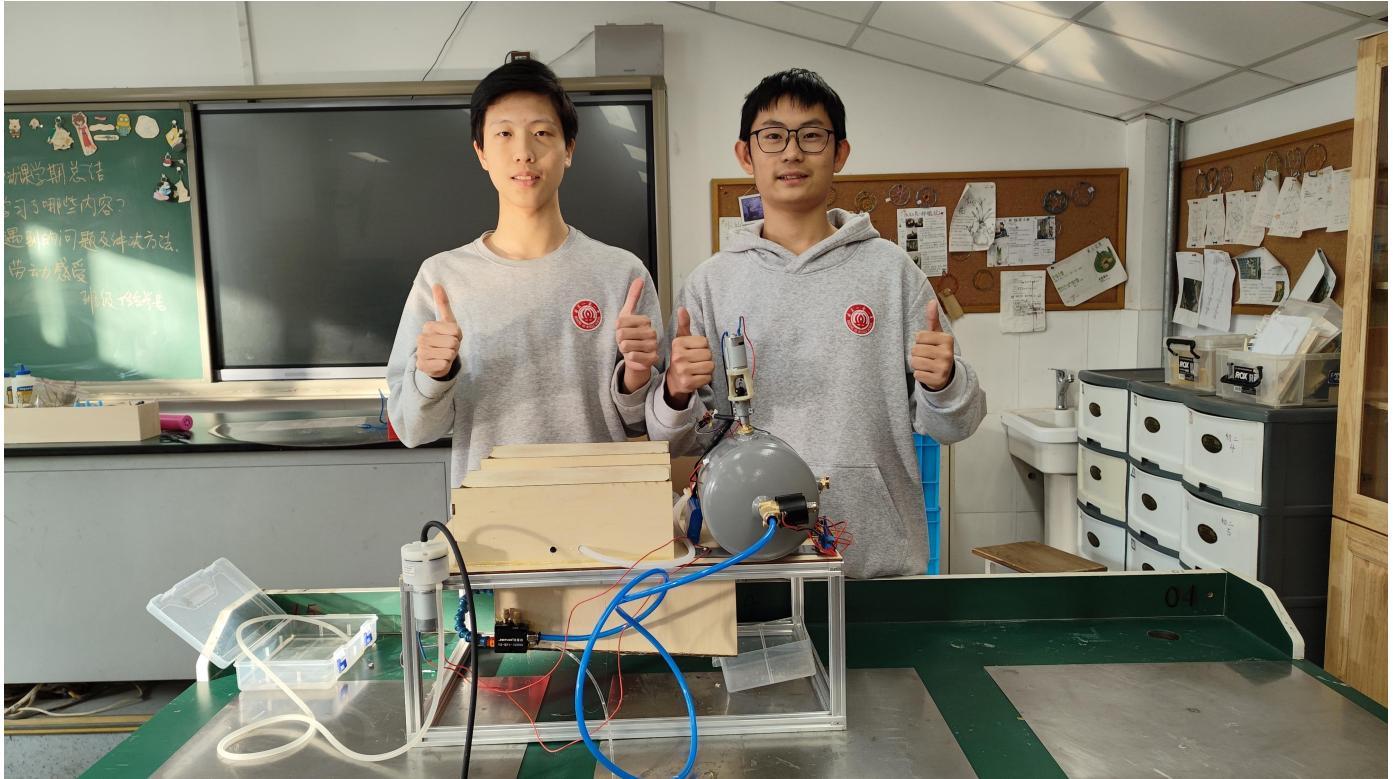
CHANNELS





Keep your
mind
SHARP
all the time!





THANK YOU!