

# SOAP STREAM



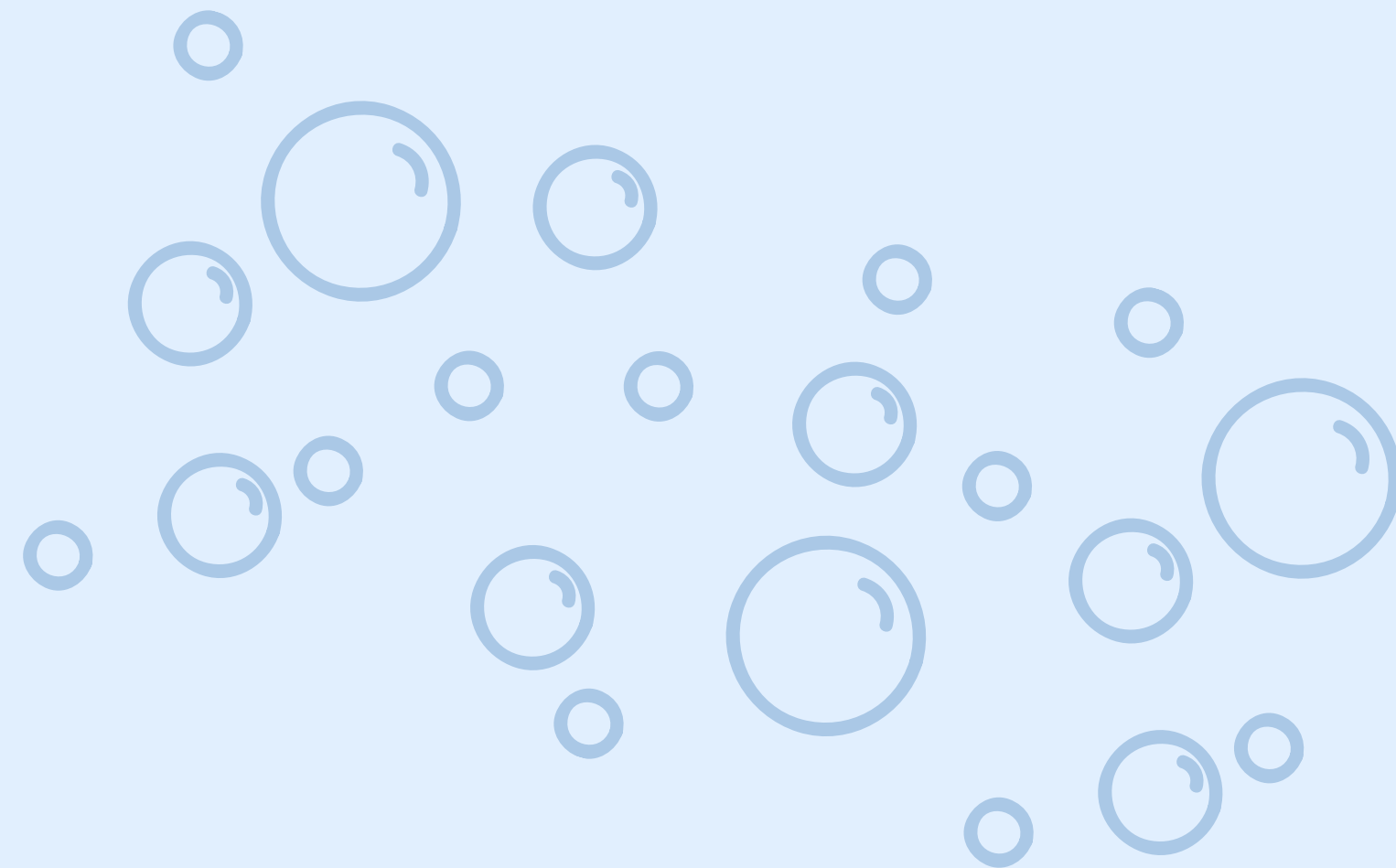
# MAIN IDEA

This project focuses on designing and implementing an automated liquid soap production and filling line. The system ensures efficient mixing, precise dosing, and seamless packaging of liquid soap into bottles. By integrating automation and control technologies, the production line enhances efficiency, reduces waste, and maintains high-quality standards. The goal is to provide a cost-effective and reliable solution for manufacturers to meet market demands while adhering to health and safety regulations.



# FEATURES

- **Raw Material Dispensing.**
- **Material Mixing .**
- **Bottle Feeding .**
- **Soap Filling .**
- **Cap Placement .**
- **Cap Sealing .**



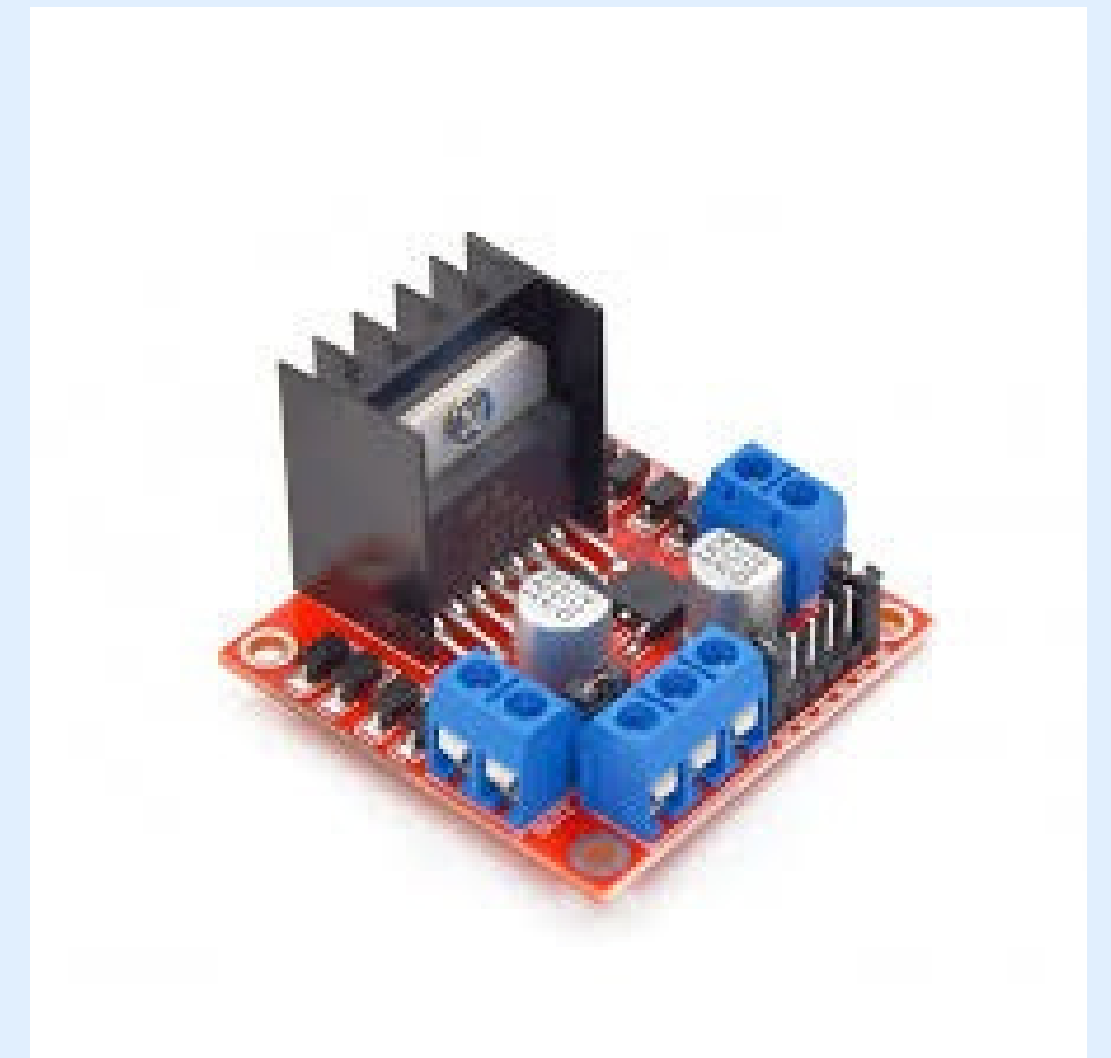
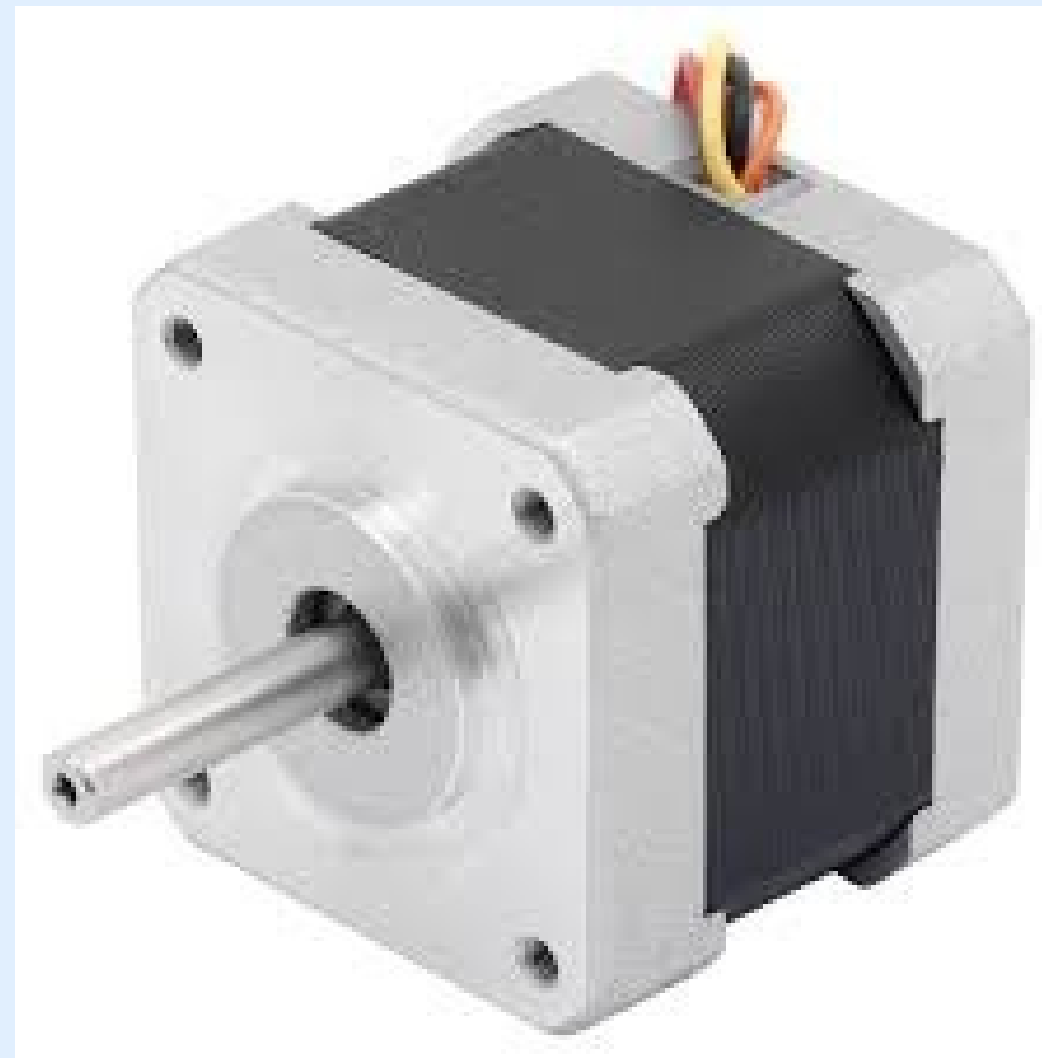
# RAW MATERIAL DISPENSING



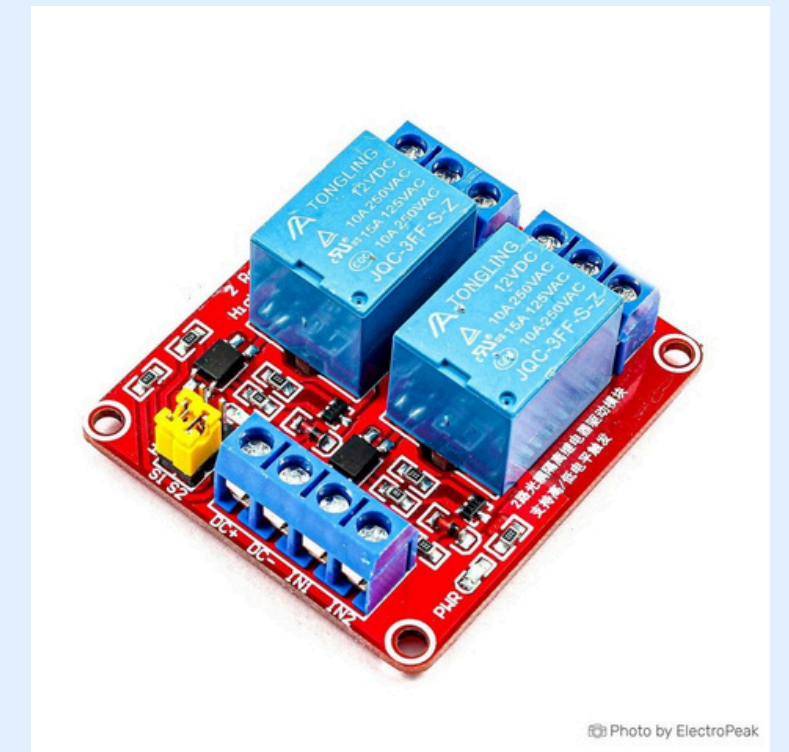
# MATERIAL MIXING



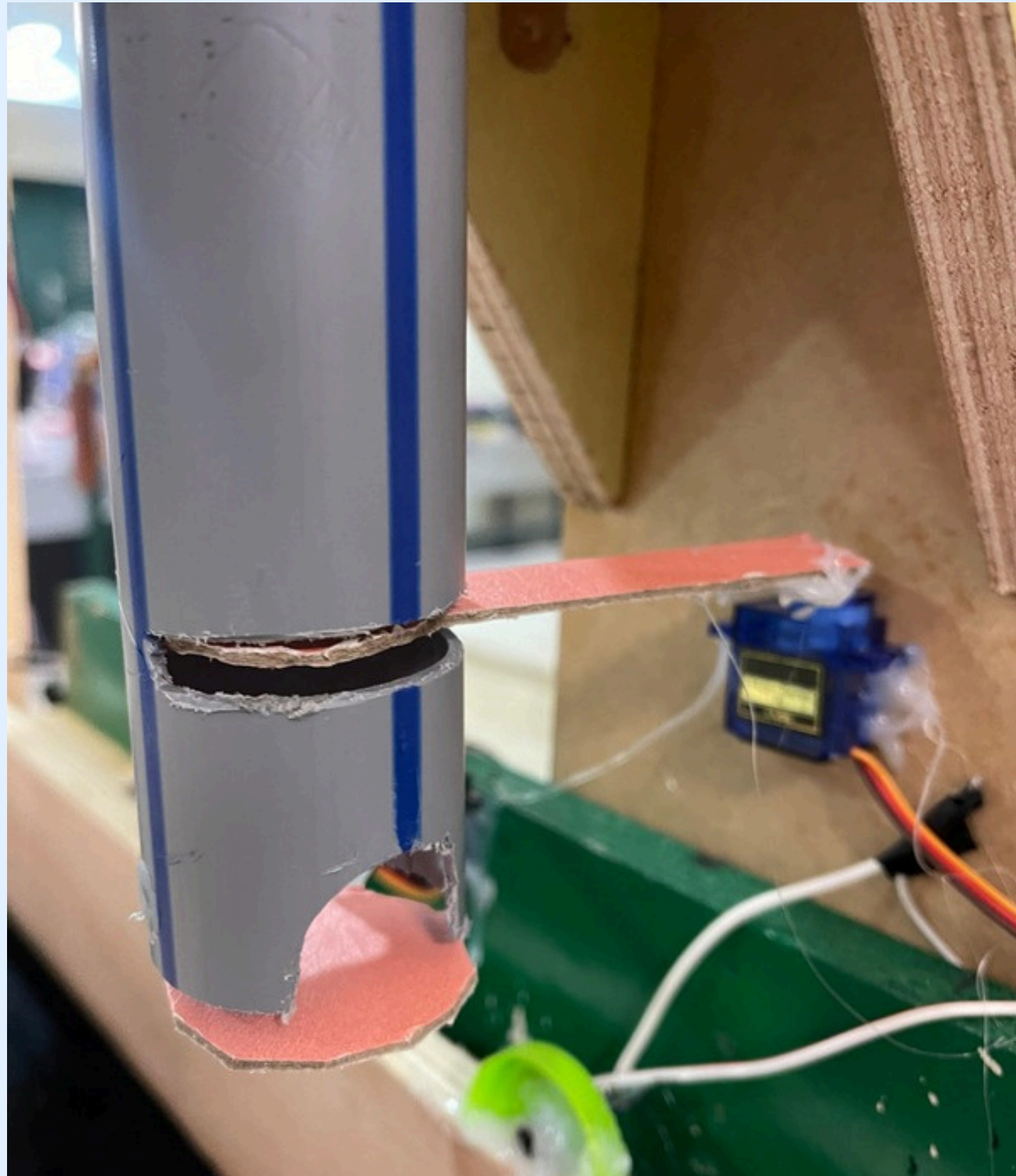
# BOTTLE FEEDING



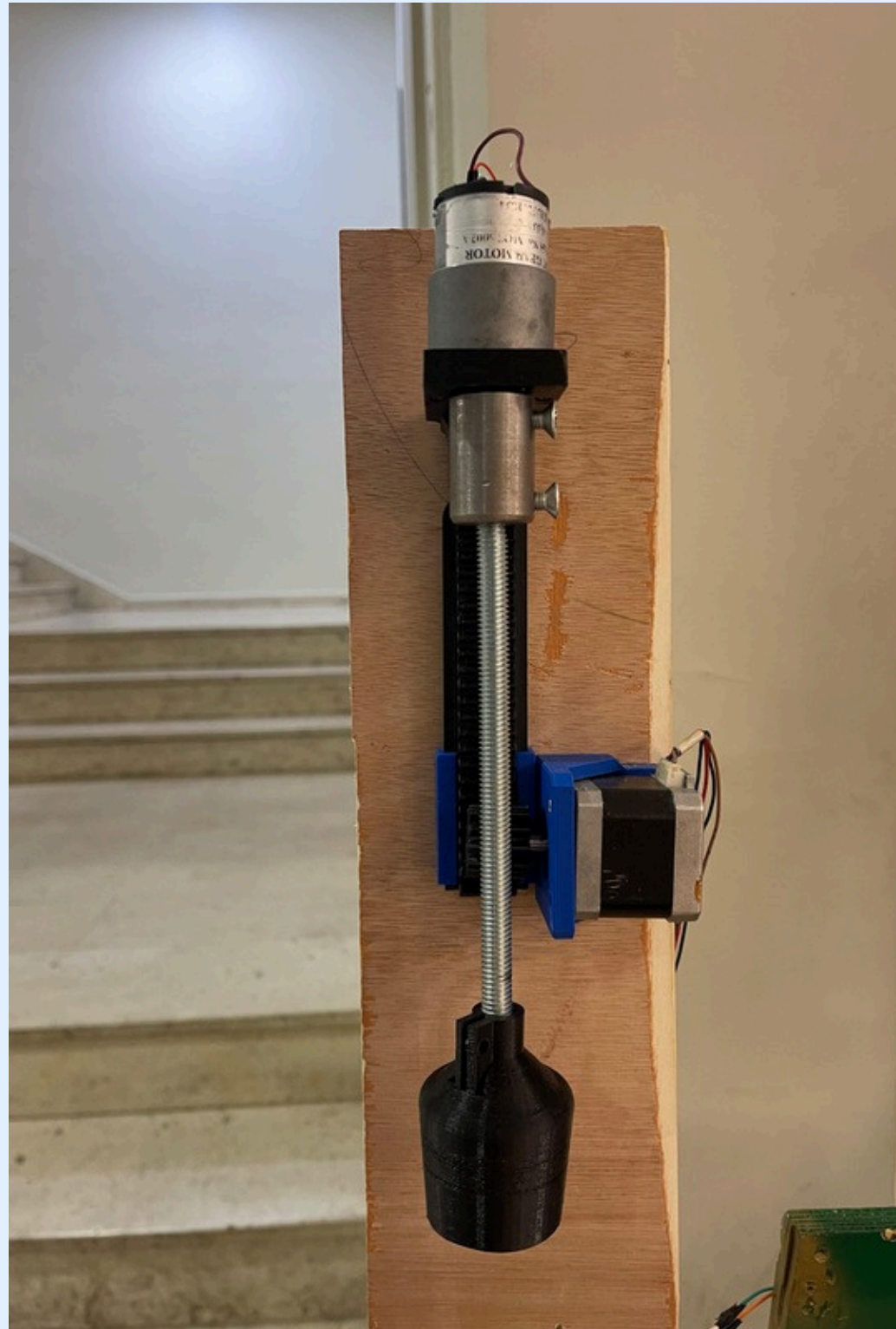
# SOAP FILLING



# CAP PLACEMENT



# CAP SEALING



# PRODUCTION LINE



# CONSTRAINTS

- High Cost
- Hardware Malfunction
- Wiring and Hardware Integration
- Software Development Challenges
- Restricted Movement
- Environmental and Safety Concerns



# FUTURE WORK

- Support for Different Bottle Sizes
- Bottle Detection System
- Filling Verification
- Automated Raw Material Handling
- Scaling Up Production

