A2 SLDP 19 | NYU Tandon School of Engineering

The SANIX
RAMIClean Inc.

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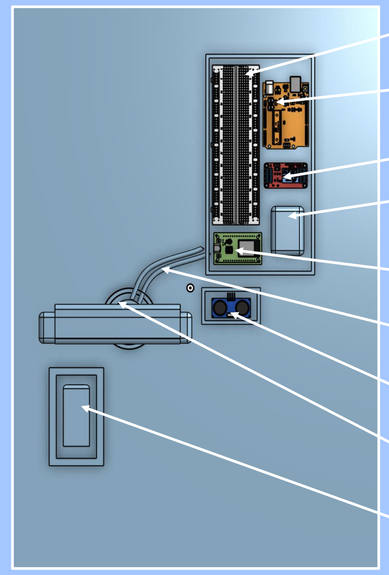
MISSION
To redefine everyday hygiene.

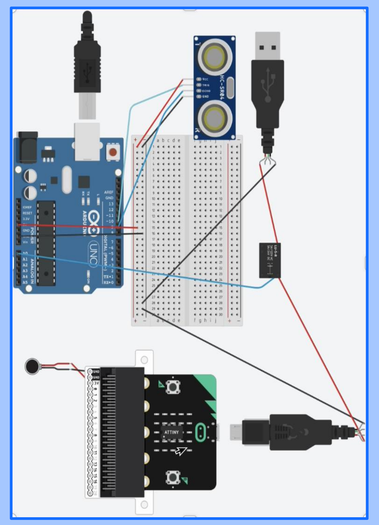
BACKGROUND INFO
- Door handles: high-touch surfaces, viruses persist on surfaces (eg. avg 161,904 colonies on toilet door handles)
- High contact spaces: schools, hospitals, offices
- High traffic areas = high clean frequency (inconsistent, labored)

PROJECT OBJECTIVES
- Prevent germ spread on door handles
- Automate without user input
- Use refillable sanitizer for sustainability
- Energy-efficient, reliable, compact

CAD MODEL



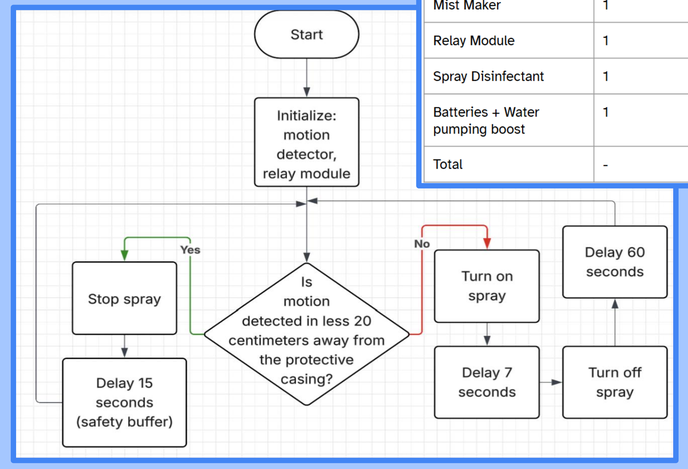
CIRCUIT DIAGRAM



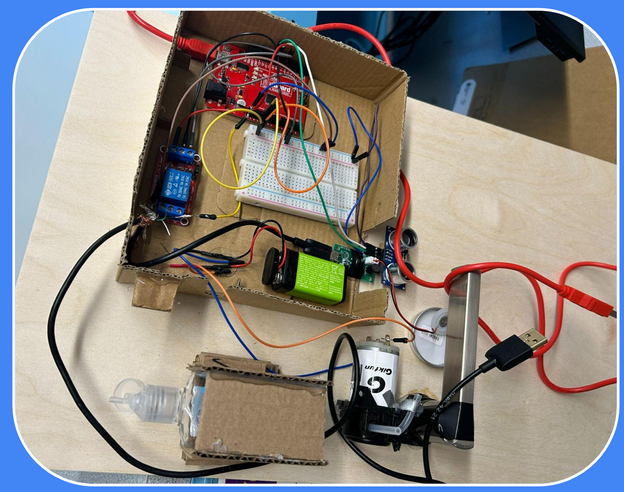
COST ESTIMATE

Item	Quantity	Cost/Unit ($)	Total Cost ($)
Arduino UNO	1	33.00	33.00
Ultrasonic Sensor	1	5.00	5.00
Mist Maker	1	1.00	1.00
Relay Module	1	10.00	10.00
Spray Disinfectant	1	5.00	5.00
Batteries + Water pumping boost	1	30.00	30.00
Total	-	-	84.00

CODE FLOWCHART



RESULTS
- Periodic auto cleaning
- Interrupt cycle when motion sensed by the ultrasonic sensor
- Mist maker produce mist from the sanitizer
- External power source can be changed for recharge
- Germs are efficiently killed
- Back-up water pump works reliably



NEXT STEPS
- Integrate rechargeable battery
- Implement more disinfectants
- Improve commercial casing
- Utilize different handle styles
- Design + use more durable mist maker