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EDUCATION

BTech. Computer Science and Engineering (AIML) Nagpur, Maharashtra, India | Jun 2024 Shri Ramdeobaba College of Engineering and Management CGPA: 8.1/10

PROJECTS

SPIDER ROBOT

- **Realistic Leg Movement:** Powered by servo motors, the spider robot mimics the natural, articulated movement of spider legs, creating a lifelike crawling effect.
- **Programmable Walking Patterns:** Controlled via Arduino, the robot supports customizable gait patterns, including forward, backward, and turning motions.
- **Automation and AI Assistant (I):** Utilizing AI models using Raspberry Pi to automate tasks such as scheduling and controlling IoT devices through human commands and hand gestures.

CHILL-SP: A SMART DEVICE FOR COOLERS

- **Power and Water Efficiency:** This ESP based device enhances any ordinary cooler with advanced features to optimize power usage and minimize water consumption by 50%, making it eco-friendly and cost-effective.
- **Smart Alerts and Maintenance Reminders:** It provides real-time monitoring of water levels, pump status, pump operation time intervals, temperature and humidity readings, safety features like electric shock prevention.
- **Integrated IoT Connectivity:** Equipped with Wi-Fi, Chill SP allows seamless interaction through a webpage to control the cooler features through smart devices.

SOAP DISPENSER

- **Touchless Operation:** The Arduino-based soap dispenser uses an ultrasonic sensor to detect hand presence, automatically dispensing soap for a hygienic, hands-free experience.
- **Customizable Dispensing Amount:** Adjustable settings to control the volume of soap dispensed, perfect for conserving resources or catering to different usage preferences.
- **Compact and Portable Design:** Built with a servo motor, 3D-printed body, and a rechargeable battery, the dispenser is both eco-friendly and easy to install on any spray or nozzle bottle in any space.

PUBLICATIONS

- **Patented Design – SOAP DISPENSER**
Designed and patented the soap dispenser.

SKILLS

- **Embedded Systems:** Arduino, ESP8266/ESP32, Raspberry Pi, GPIO Interfacing
- **Programming:** C/C++ (Embedded), Python, JavaScript, HTML/CSS.
- **IoT & Cloud:** ESP8266/32 Architecture, HTTP/REST, WebSocket
- **Tools & Prototyping:** Breadboarding, Circuit Design, Arduino IDE.