Problem Domain (Artificial Intelligence - AI)

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Wizz-E, an AI Companion

Team Name : WebWizzards

Problem Statement

We think the time is right to start investing in artificial intelligence and robotics technology to automate tasks in important fields such as healthcare and education, especially in this era of artificial intelligence. Inspired by the well-known Wall-E, Wizz-E is a revolutionary step in the development of intelligent systems that not only demonstrate AI's potential but also tackle pressing societal issues. Wizz-E has the ability to completely change the way we think about well-being by fusing personalized education with healthcare support, and a personalized assisting capability, providing a comprehensive and flexible solution for those who need it.

Solution

Inspired by Wall-E, Wizz-E is an AI robot created to demonstrate the applications of AI, especially in the fields of healthcare and education. It functions as an engaging educational aid covering a range of topics as well as a health companion for the elderly and those with medical issues. Wizz-E tracks vital signs and provides caregivers with real-time health updates via sophisticated AI algorithms and sensors. Its integrated camera system guarantees prompt response in an emergency by automatically notifying caregivers. In order to improve users' quality of life, the solution emphasizes a holistic approach and seamlessly integrates healthcare features and educational content. Priorities one and two in Wizz-E's development are user-friendliness, accessibility, and adaptability to meet the wide range of user needs.

Dependencies and Showstopper

Dependencies

Tech Infrastructure: Stable internet, secure cloud, and advanced sensors.
Data Security: Adherence to privacy laws for health data protection.
AI Models: Continuous improvement for health monitoring and education.
ntegration: Compatibility with healthcare systems and regulatory compliance.

Show Stoppers

Latency : The bot works on api calls, which could increase the latency of the workflow.
Raspberry Pi : For the requirements mentioned, a raspberry pi needs to be coded instead of arduino. While the raspberry pi is far more efficient in performance outputs, it lacks the speed of processing of an arduino.

Tech Stack

Frontend

ReactJS, CSS,

Backend

Flask framework for Python,
Firebase / NodeJS, MongoDB

AI Models

Mistral 7b , an open source Large Language Model optimized for communication

IOT and Hardware

Various IOT devices, like sensors, motors, li-ion battery ,
Raspberry Pi

DevOps

Docker to containerize all our code.
Ubuntu to run the models locally.

Security

TLS/SSL for secure data transmission
OAuth for authorization. (google oauth)

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Team Name:

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Vathsav	Anurag University	Backend
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