Ideas | Requirements | Methods | Functional Blocks

Idea 1
In a healthcare setup, a companion robot that can entertain and keep the kids occupied while in the waiting room for the adult.
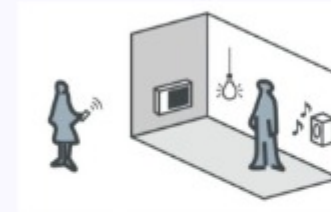
Requirements:
- Visual appeal should be good enough for kids
- Should be entertaining and relatable to kids
- Cartoonish voices and dialogues
- Ability to adjust games on amount and age of participants

Methods:
- Cognitive Walkthrough
- Wizard Of Oz

Idea 2
ROSE as a retro character that speaks in a 60s/ 70s voice + plays old music to help patients with Alzheimer's or dementia

Requirements:
- Facial Expressions
- simulate an average personality of the region
- Talk to user using speech from the 60s/70s era
- Emergency alerts to trusted contacts
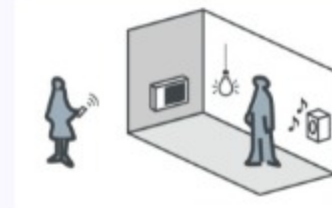
Methods:
- Wizard Of Oz
- Cognitive Walkthrough

Idea 3
ROSE can safely transport items from one place to another autonomously.

Requirements:
- Storage capacity
- End effectors with gripping capabilities
- Facial Expressions
- Safety of the items and goods

Methods:
- Bull's-eye Diagramming or MoSCoW
- Stakeholder Mapping

Functional Blocks

Mobility
- Navigation & Moving to specific location
- LIDAR & vision sensors
- Able to hold items (up to 3 KG without end-effector)

Visual Sensing
- Face detection
- Detect voices and commands
- Sense environmental features

Communication
- Talk to user using speech
- Visual feedback (LEDs, screen expressions)
- Understands yes or no
- Can be remote controlled

Safety
- Fall detection + Unusual behavior
- Emergency alerts to trusted contacts
- Scheduled Patrols