P1 Phase

Project Concepts

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Overview

01 User Persona

02 Critical User Journey Map

03 Problems Identified

04 Problem Statement

04 Concept Generation

05 Final Concept

Our Process

01 Research

02 Define

03 Ideate

04 Prototype

05 Testing

Demographics

Name: Mrs. Sunita Sharma
Age: 68
Gender: Female
Location: Urban area, lives with her spouse
Occupation: Retired school teacher
Education: Master's degree in Hindi
Income: Pension and family support

Pain Points and Frustrations

Forgetting Items: Often misplaces important items like keys, spectacles, medication, and household essentials, which causes frustration and inconvenience.

Technology Barriers: Struggles with modern technology, finding it difficult to use smartphones or digital reminders effectively.

Limited Support: Lacks effective systems to help her remember where she put things, leading to repeated searches and stress.

Needs and Goals

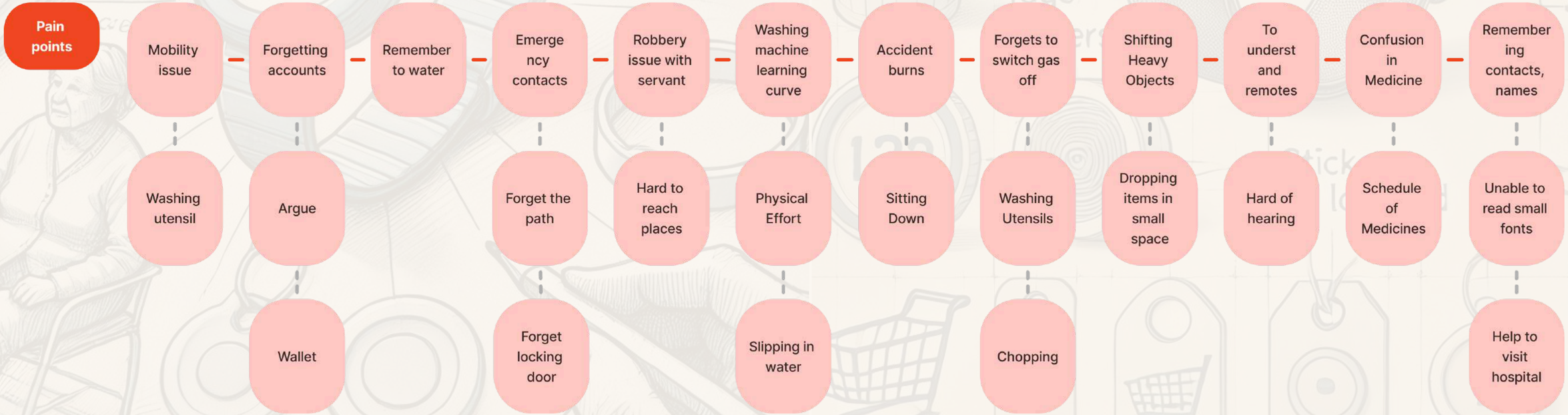
Item Tracking: Needs a simple and reliable system to help remember the locations of frequently used items like keys, spectacles, and medication.

Easy-to-Use Solutions: Requires straightforward solutions that do not involve complex technology and can integrate into her daily life.

Peace of Mind: Wants to reduce the stress and inconvenience of losing or misplacing important items.

Critical User Journey Map

Goals
Make Tea/ Coffee
To get groceries
Maintain Plants
Manage Maali
Health/ Yoga
Clean the house
Fans, Kitchens, Washrooms
manage servants/ help
Laundry
Ironing Folding
Faith
Praying Visit temples
Cooking
Organising
Leisure
TV, Newspaper, Mobile, Friends
Doctors
Meds, Appoinments
Connect
Friends, Family, Neighbor, Caretak...


Pain points
Mobility issue
Washing utensil
Forgetting accounts
Argue
Wallet
Remember to water
Emergency contacts
Forget the path
Forget locking door
Robbery issue with servant
Hard to reach places
Washing machine learning curve
Physical Effort
Slipping in water
Accident burns
Sitting Down
Forgets to switch gas off
Washing Utensils
Chopping
Shifting Heavy Objects
Dropping items in small space
To understand remotes
Hard of hearing
Confusion in Medicine
Schedule of Medicines
Remembering contacts, names
Unable to read small fonts
Help to visit hospital

Problems Identified

Frequent Forgetfulness

Even after learning, the elderly often struggle with quickly forgetting information or tasks.

Ease of Use

The technology must be simple and intuitive, catering to their needs without causing frustration.

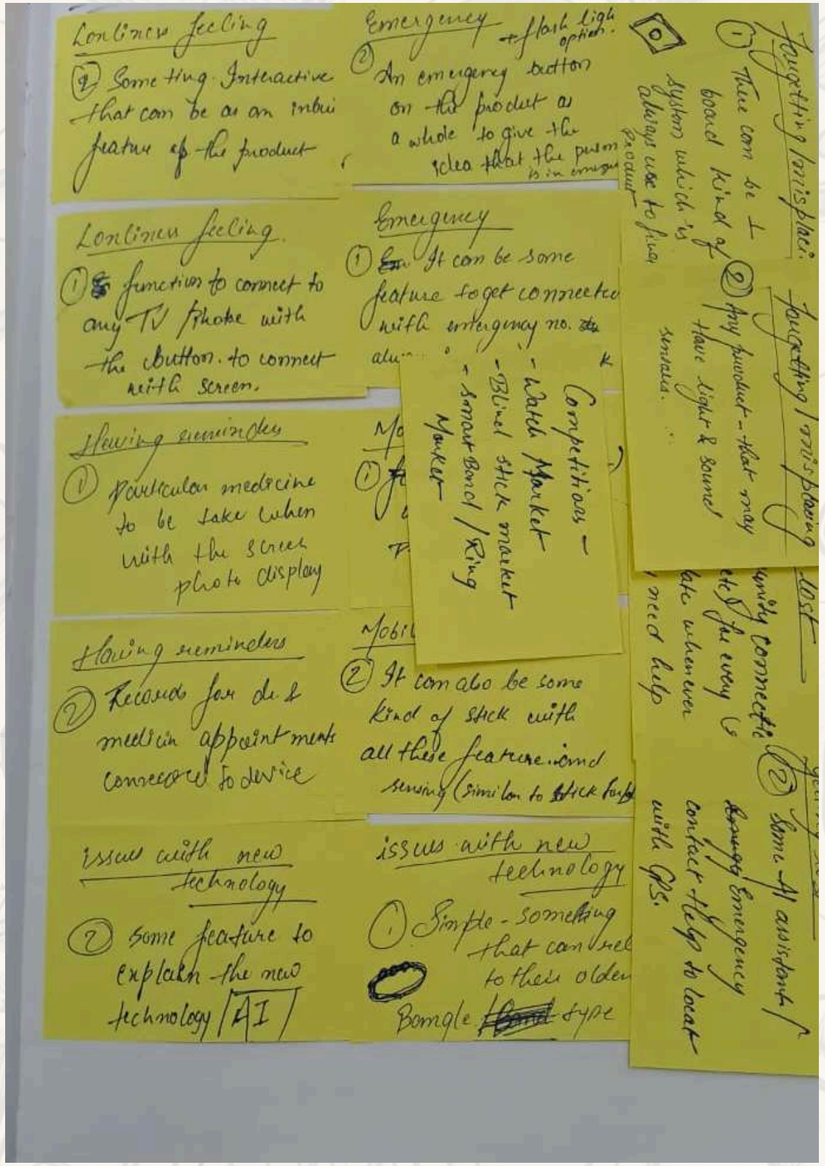
Panic in Forgetfulness

Moments of forgetfulness can trigger intense feelings of panic and anxiety, impacting their confidence and well-being.

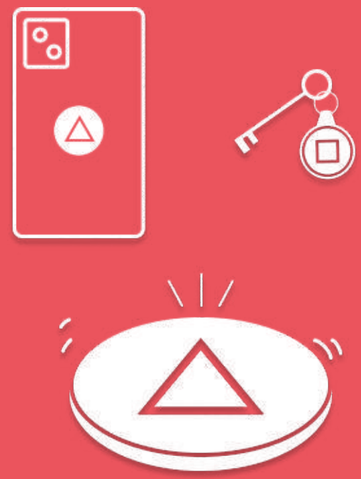
Problem Statement

To design an intuitive device to help the elderly remember important items and tasks, promoting independence and reducing forgetfulness.

Ideation


Loneliness feeling
Emergency
Loneliness feeling
Emergency
Having reminders
Having reminders
issues with new technology
issues with new technology
Competitions -
- Watch Market
- Blind stick market
- Smart Band / Ring Market

01



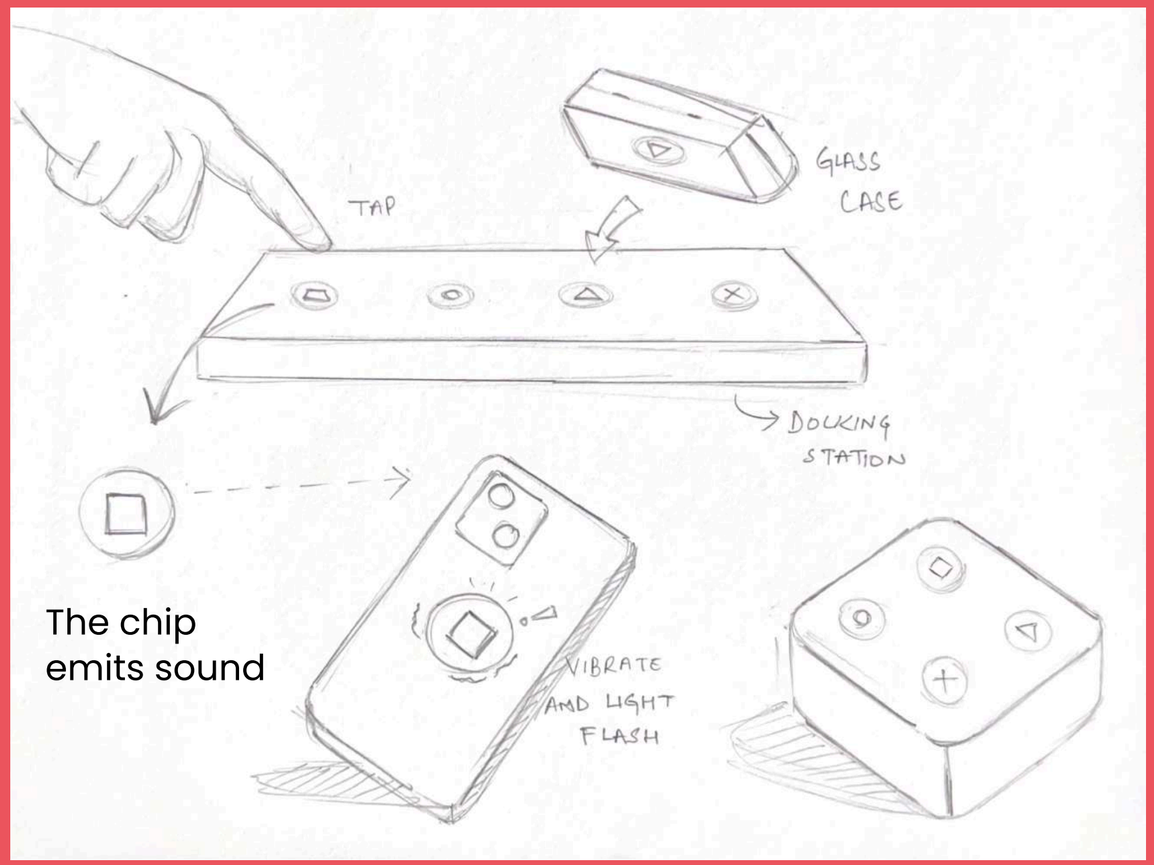
Tracking chip

Description

‘FindEase’ is a user-friendly solution designed to help the elderly locate their misplaced belongings effortlessly.

Working

Each chip is equipped with a speaker and LED light, seamlessly integrated for compactness. Paired with the control board, users can attach FindEase chips to keys, spectacle cases, phones, etc.



The chip emits sound

a button pressed on the dock corresponds to the chip the object it is placed on

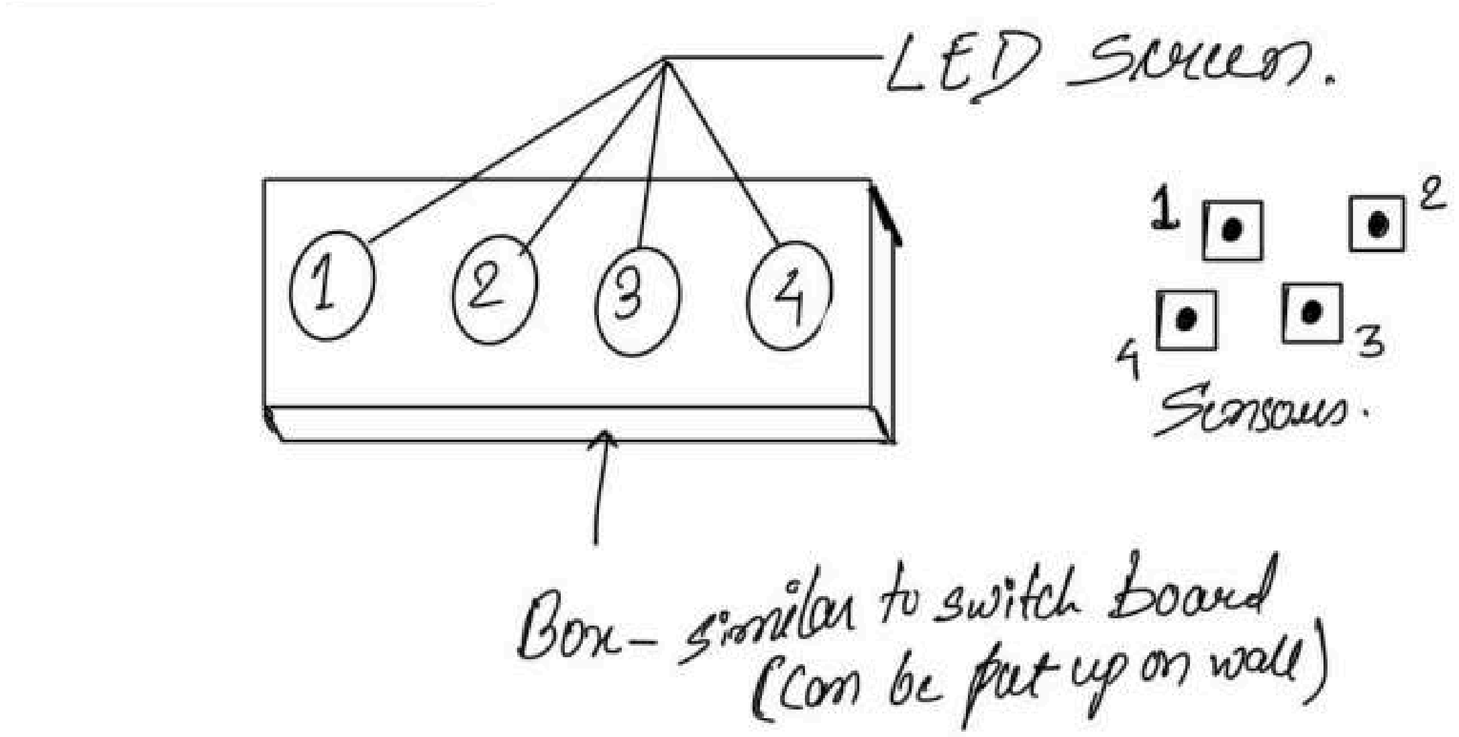
02

Description

FinderWall is a device that can be attatched to the Walls just like a switchboard with traceable sensors

Working

The sensors connected to the devices vibrate/produce a specific sound to loacate them once the button on the FinderWall is triggered



The numbers mentioned in the screen can be a LED screen to see the use of that particular numbe sensors

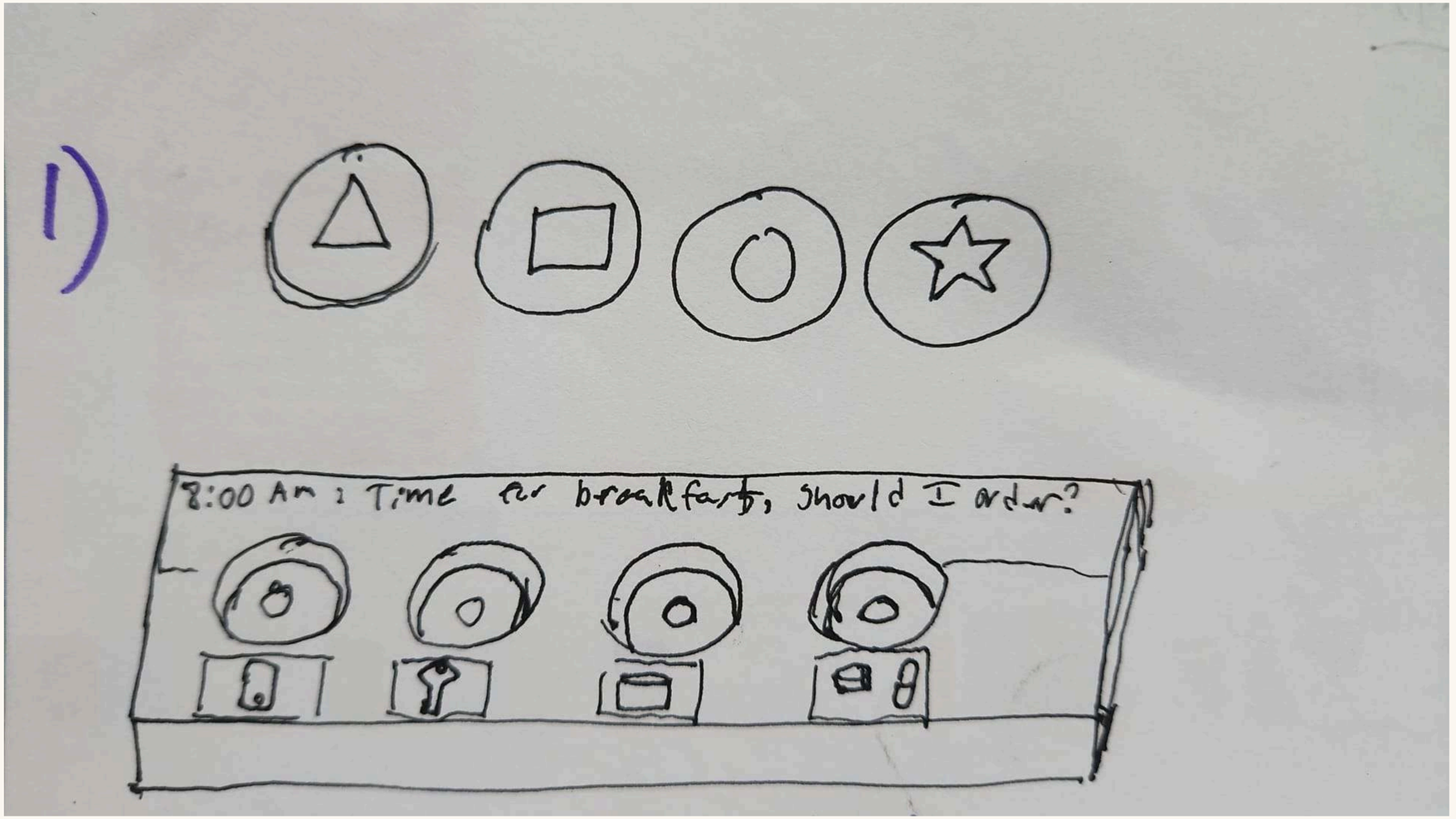
03

Description

‘FindEase 2.0’ is a user-friendly solution designed to help the elderly locate their misplaced belongings effortlessly. With a time assistance and reminder for basic meals

Working

Each chip is equipped with a speaker and LED light, seamlessly integrated for compactness. Paired with the control board, users can attach FindEase chips to keys, spectacle cases, phones, etc.



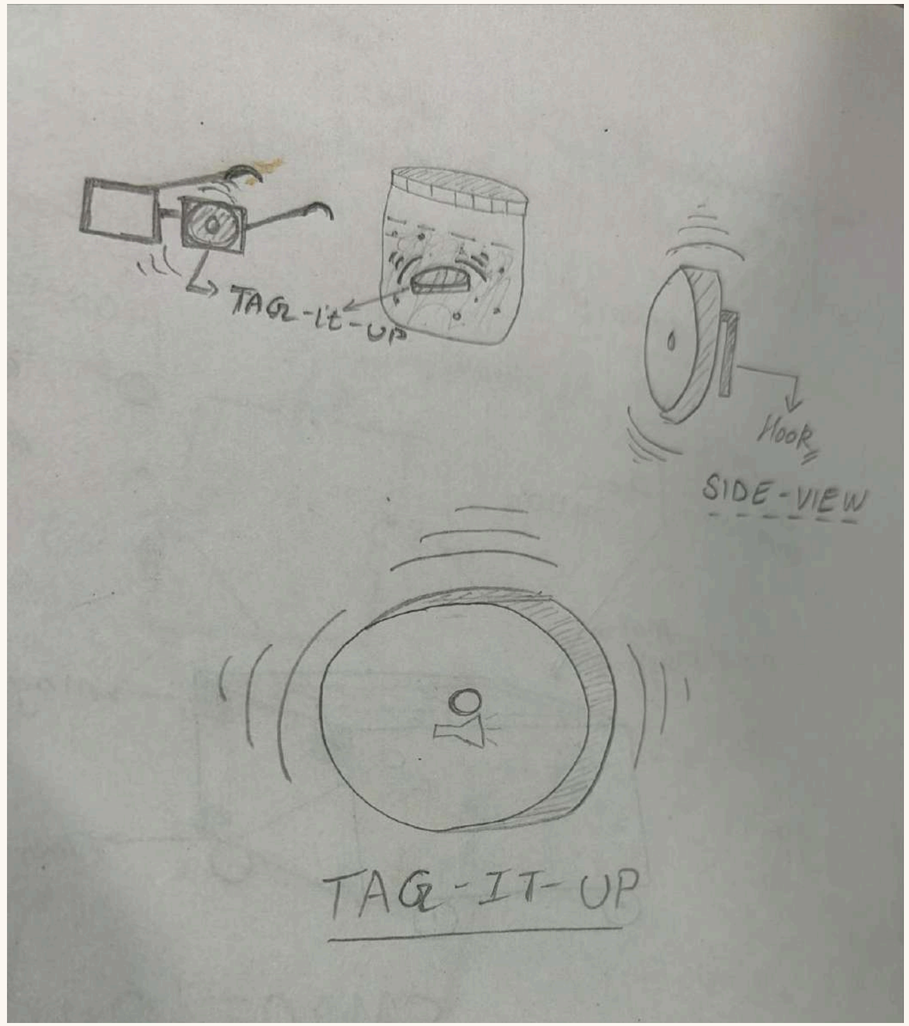
04

Description

‘Tag-it-up’ is a user-friendly solution designed to help the elderly locate their misplaced belongings effortlessly by attaching a tag to their belonging

Working

1. Light weight and small
2. Creates vibrations and light when the lost button is pressed in a remote
3. Has a hook to easily attach with wallet, glasses



05

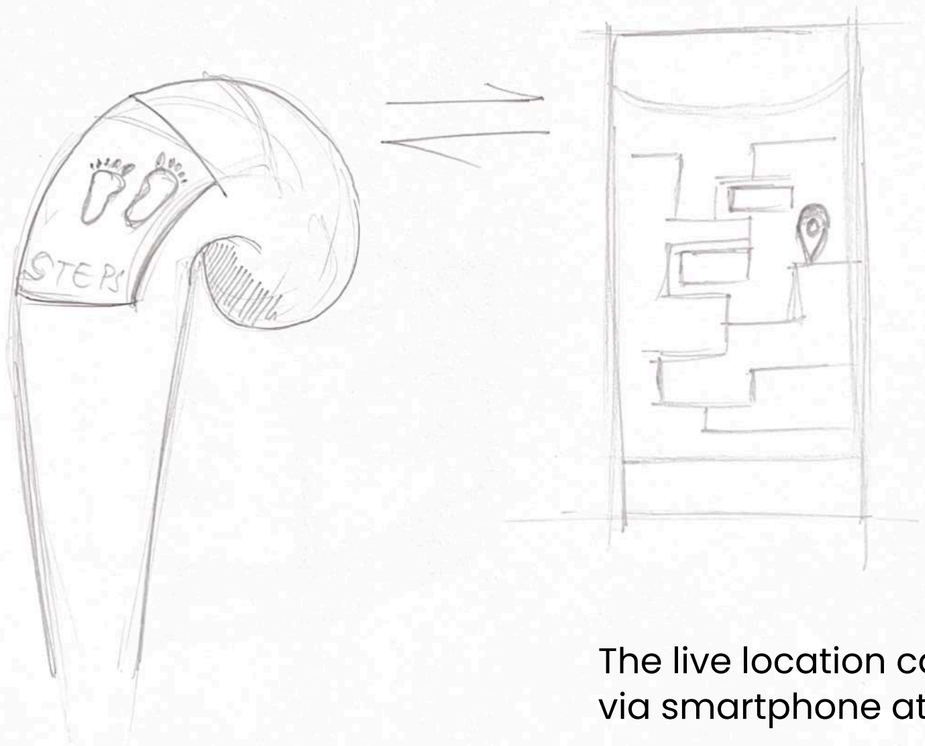
Description

A tech-enabled assistive stick which helps keeping track of the path traced by the user

Working

Equipped with GPS and sensors, the stick records and maps the user's route, providing visual or audio feedback to help them navigate familiar paths or find their way back if needed.

The smart cane, tracks the path travelled by the elderly and has a panic button.



The live location can be tracked via smartphone at all times.

06

Description

A walking stick with phone holder for navigation and a grabbing attachments at the bottom to pick, reach for objects.

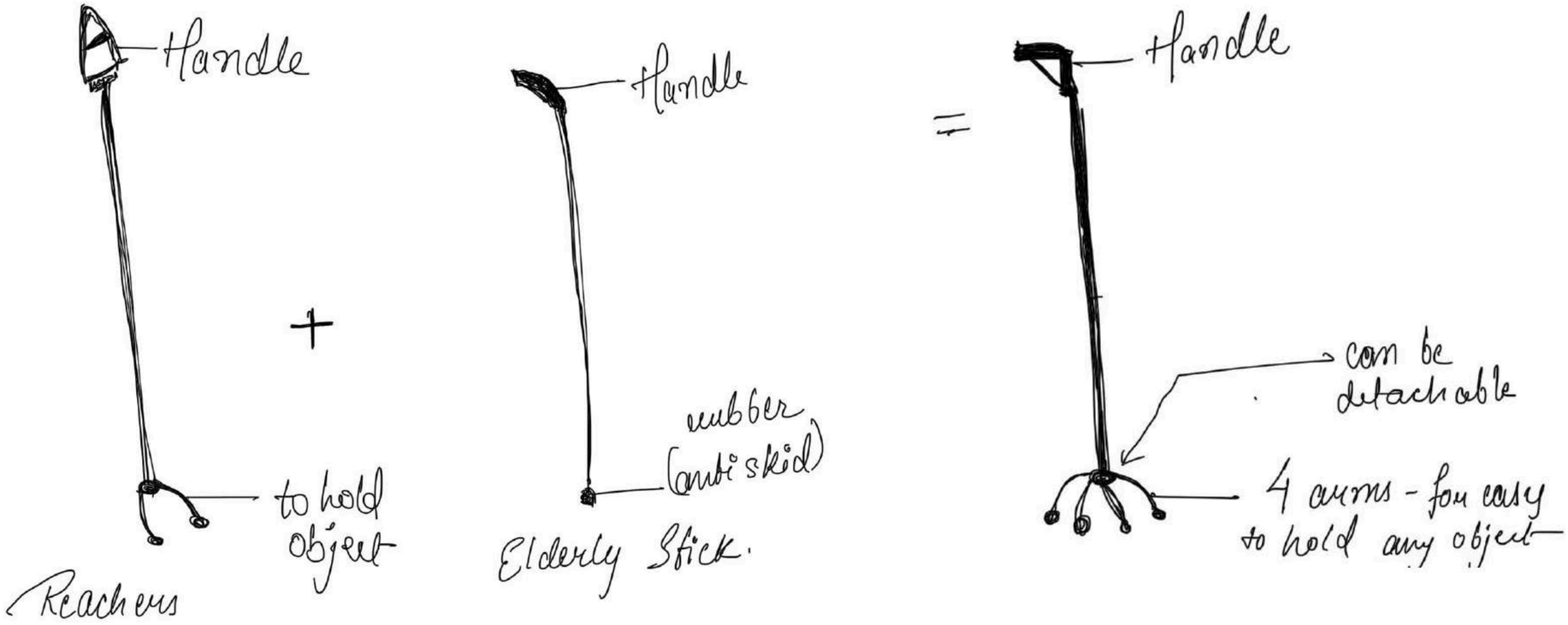
07

Description

Walking Stick mixed with a gripper to help elderly move around and pick-up things as a solution to the accessibilty issues faced by the elderly

Working

We will have a gripper attached at the base of the stick along with the normal stick. The gripper will be controlled by a handle near the grip of the stick.



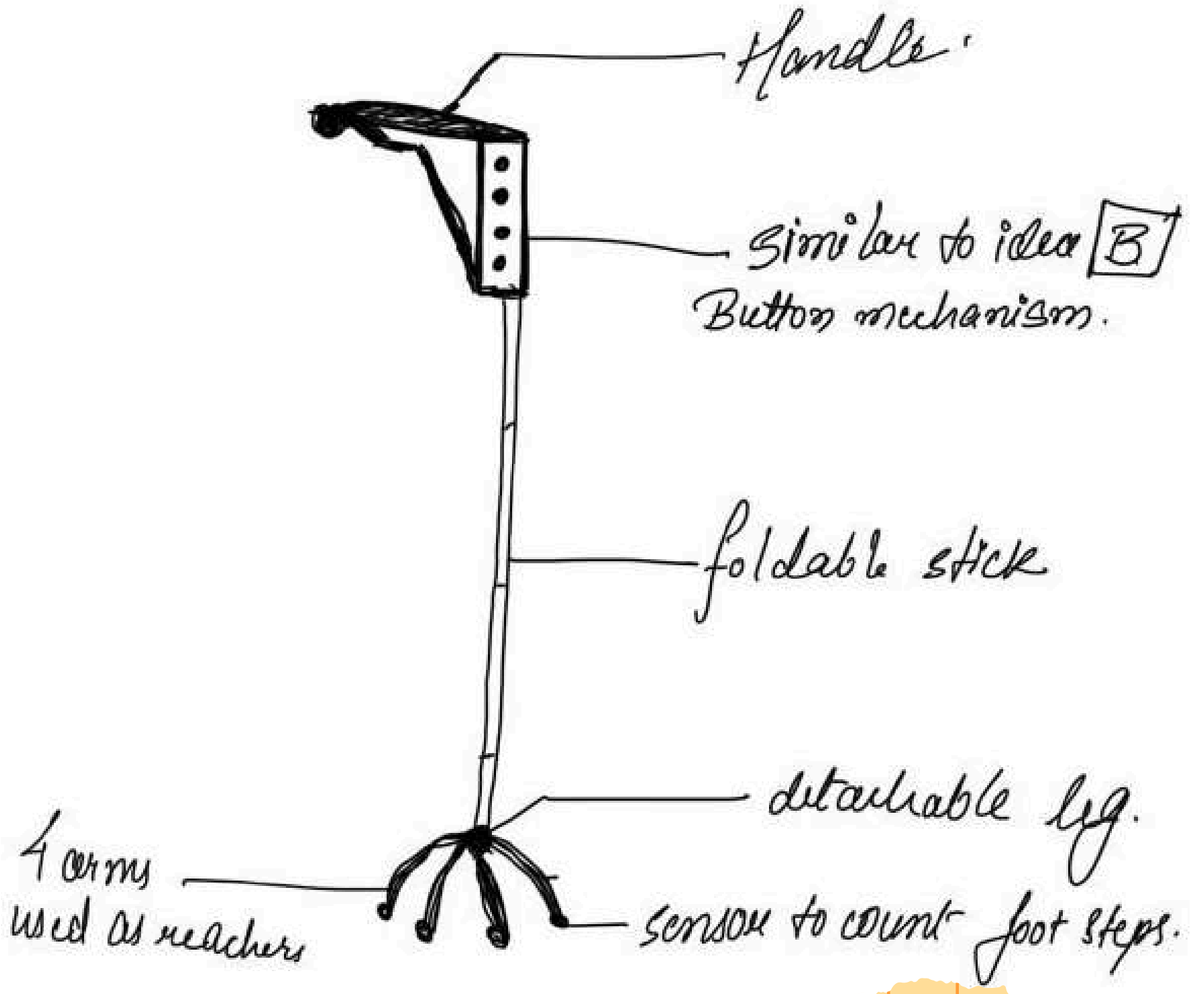
08

Description

Combining the mechanism of reacher in the walking stick it will have the detachable hand in bottom which will be operated by the button in the handle

Working

The handle for the gripping mechanism is automated using technology. The hand will grip the object and stick will shrink or lengthen on just a click of a button.



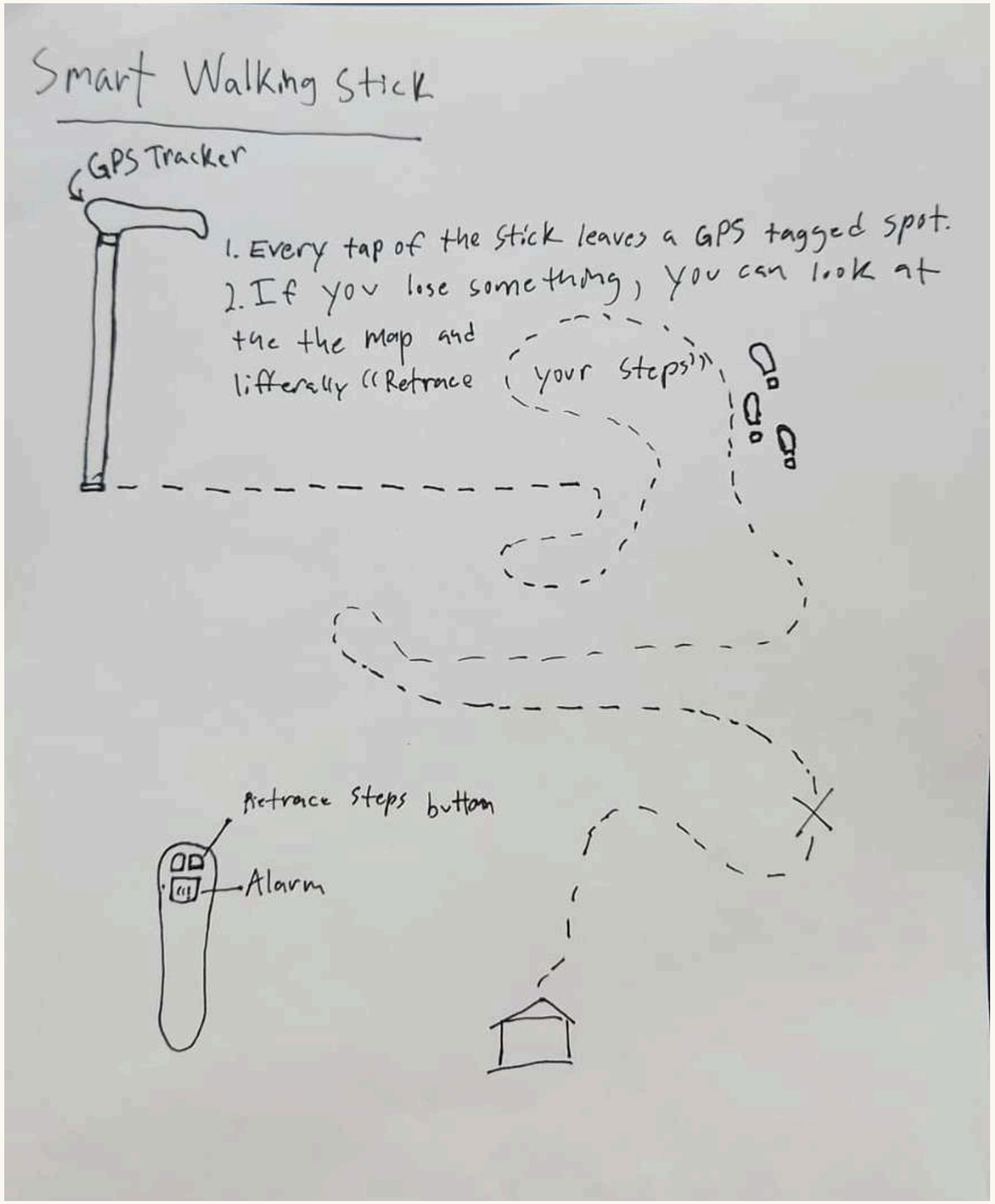
09

Description

The SmartStick will have smart mechanism with speakers, torch, emergency button,footstep count, reacher

Working

Each chip is equipped with a speaker and LED light, seamlessly integrated for compactness. Paired with the control board, users can attach FindEase chips to keys, spectacle cases, phones, etc.



10

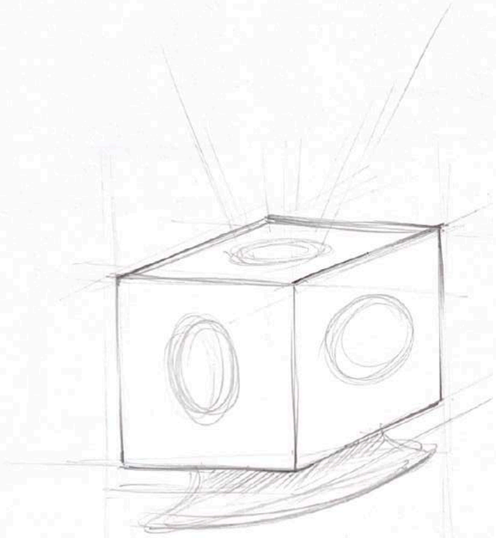
Description

‘Thought Box’ is a product which helps elderly remember important information or items

Working

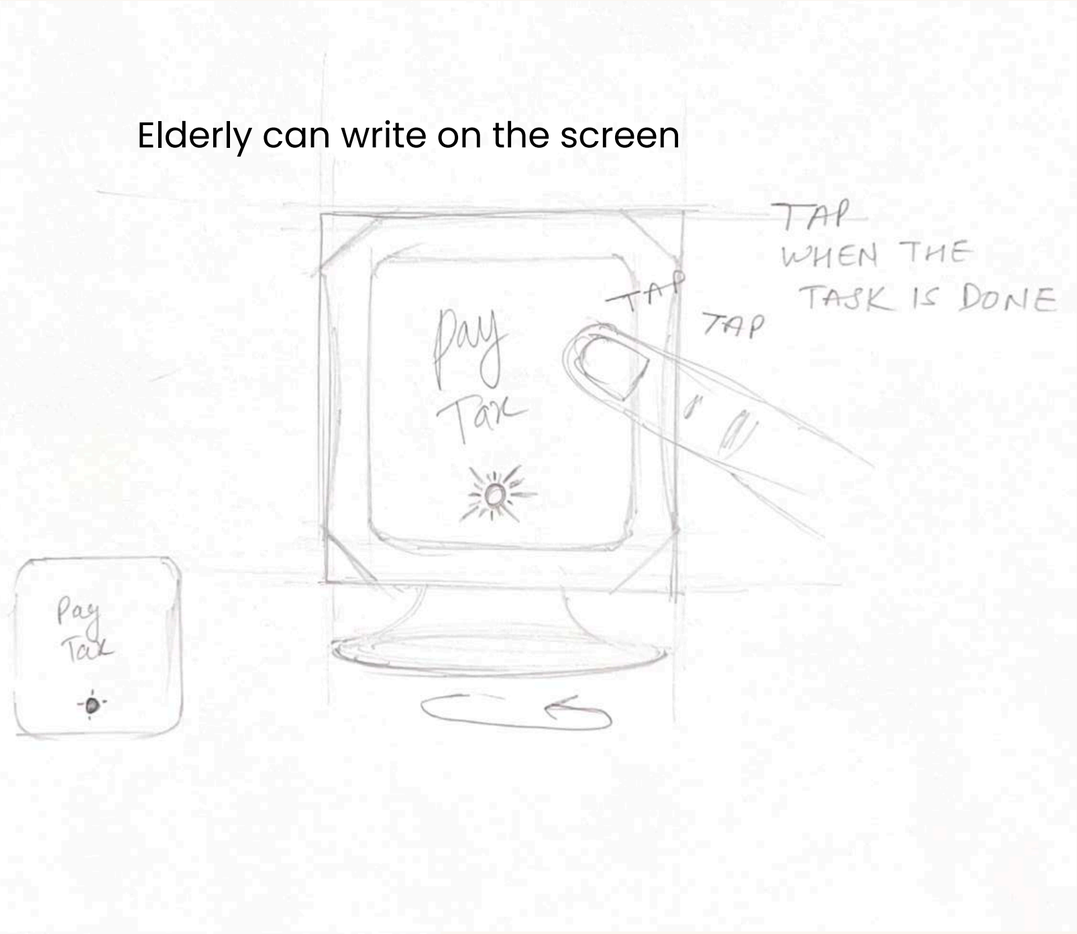
The box has has 4 active sides on which the user can scribble and it lights up when something is written on it.

The Box has an assistive button to which acts like a bell in the time of need.



Rotateable box

Elderly can write on the screen



11

Description

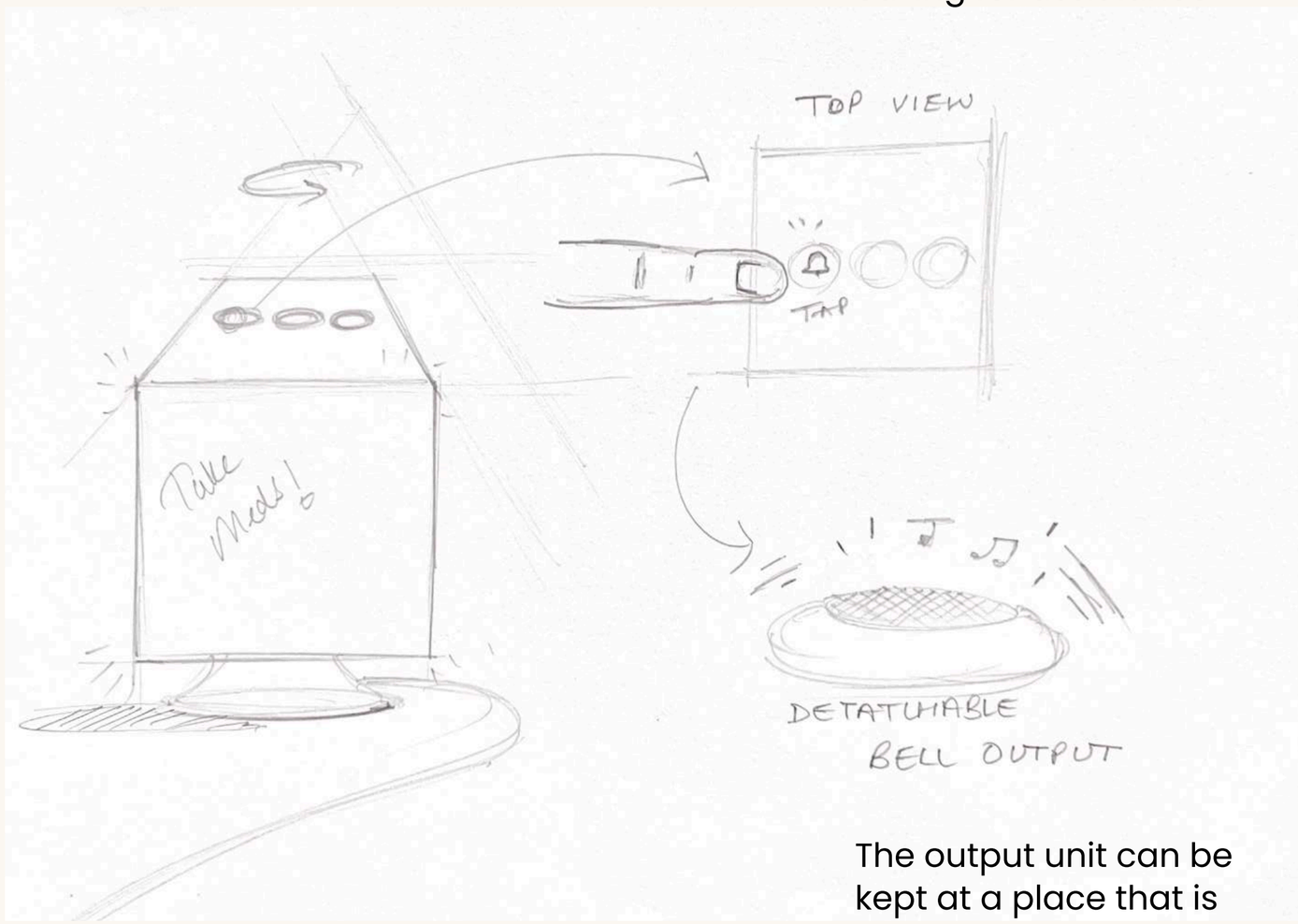
‘Thought Box 2.0’ rotatable assistive box, if the corresponding task is completed, the user can double tap to turn off light

Working

Touch sensors, LED Light, and a transparent writing screen are the essential components of the design.

The casing is a cube which is rotatable and kept on the side table.

The box has buttons for calling for assistance



The output unit can be kept at a place that is accessible to house members

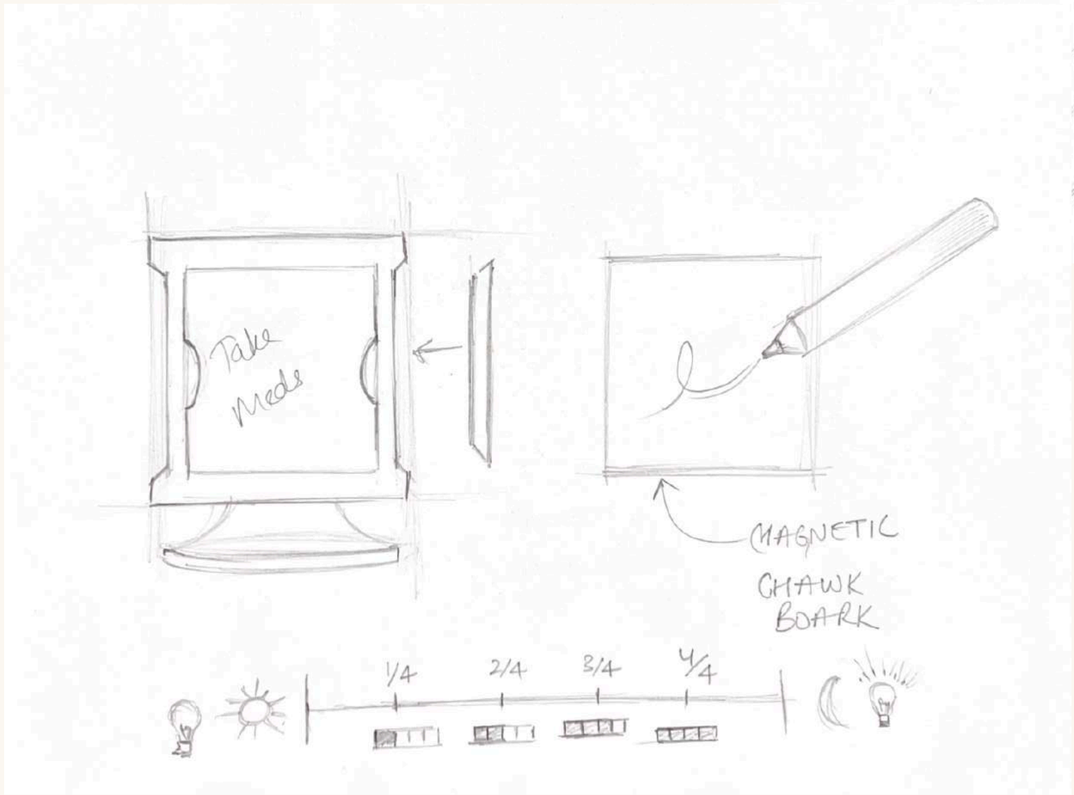
12

Description

‘Thought Box 3.0’ rotatable assistive box, if the corresponding task is completed, the user can double tap to turn off light

Working

Each side of the cube has a magnetic cutout that restricts the light flow, on which users can scribble important info. Once they have resolved the task, they can remove the magnet to let the light the light pass



By the end of the day when all tasks are done, the cube becomes an assistive night light.

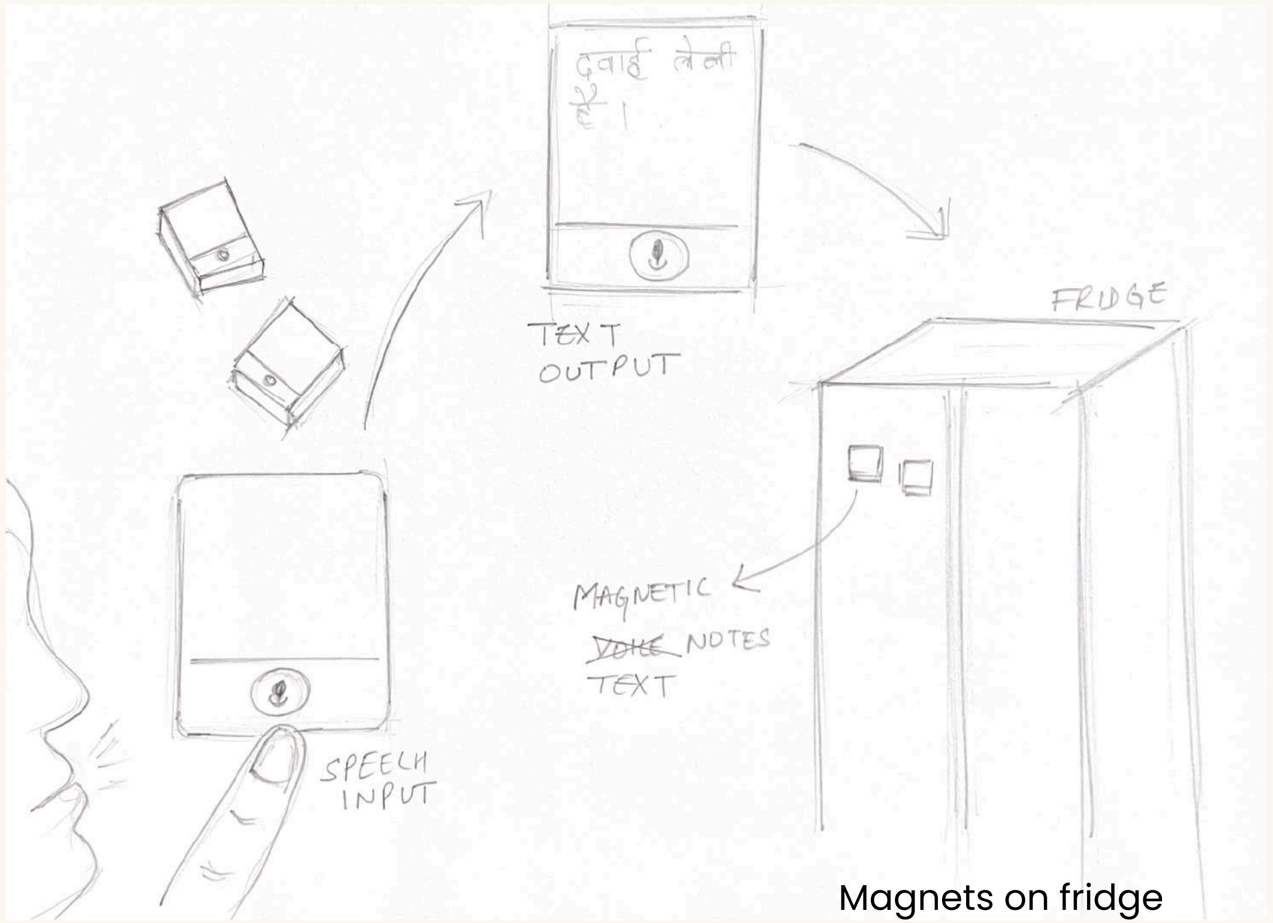
13

Description

Voice to Text notetaking on magnetic pieces that can be put up on almirah's or refrigerators for elderly

Working

The device registers audio and convert the audio to a text output and let's the elderly take note of important short-term information which they might forget about otherwise.



Touch to record

Magnets on fridge

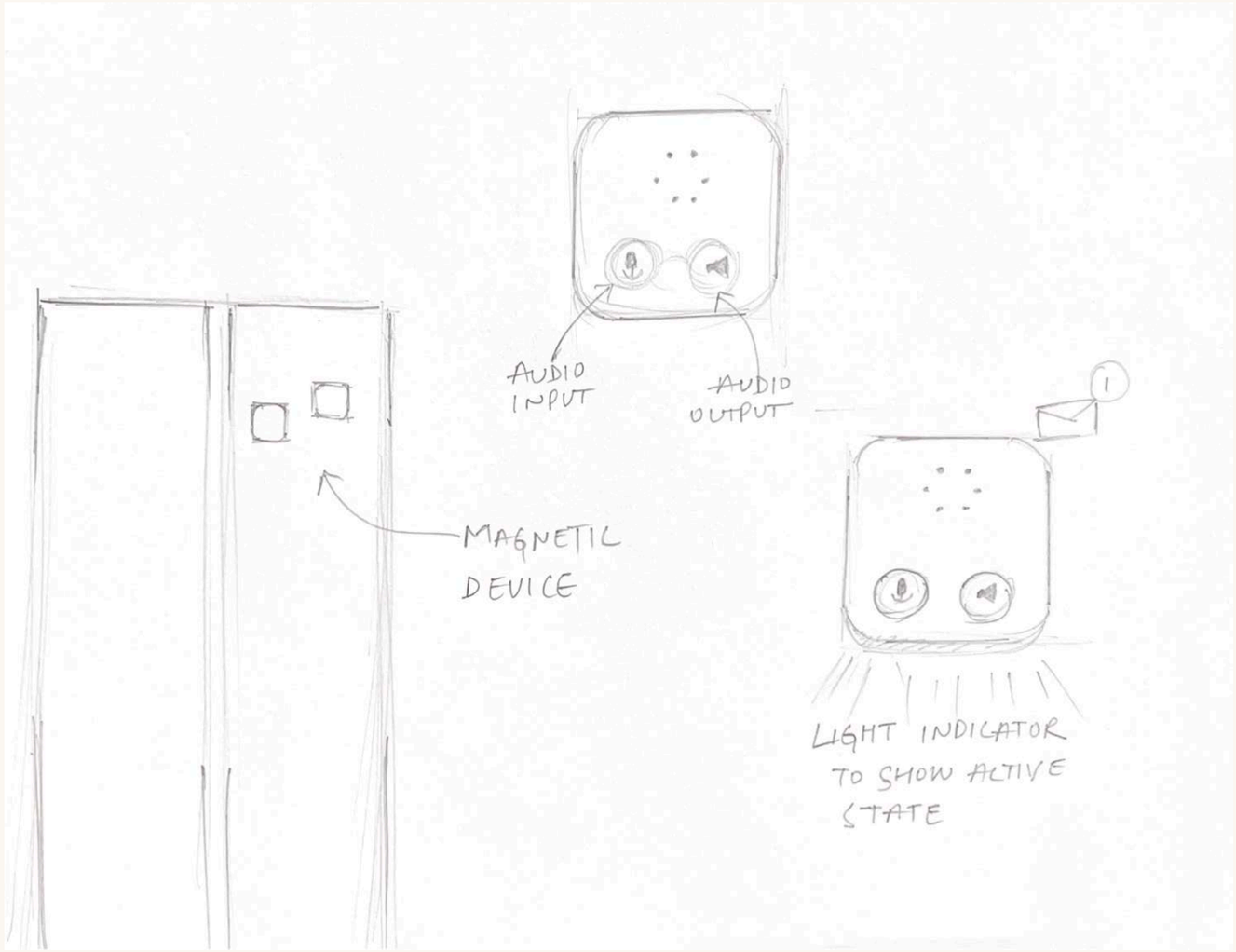
14

Description

Voice-based note-taking fridge magnets, A small magnetic device that let's elderly take audio notes.

Working

When this device is holding a message, it glows to indicate. When the message is heard after once it was recorded-the light goes dim. After 24 hours the message will be automatically deleted.



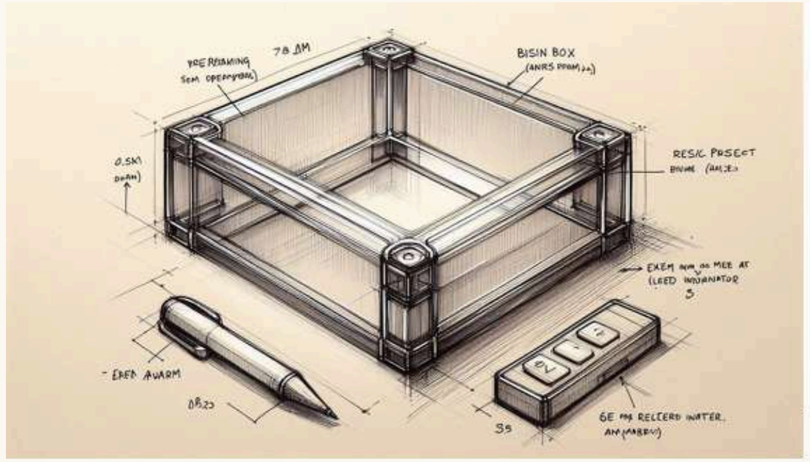
15

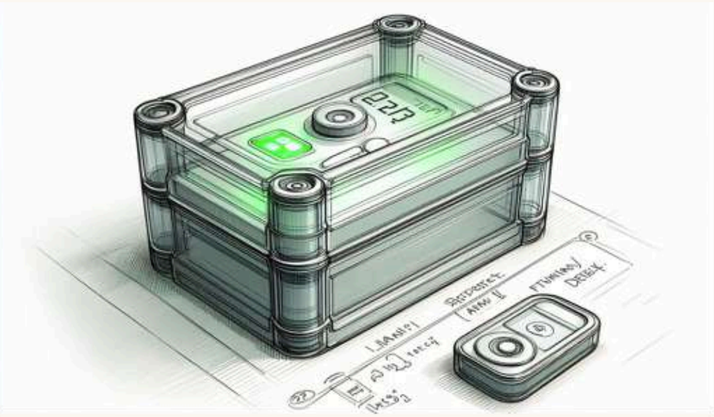
Description

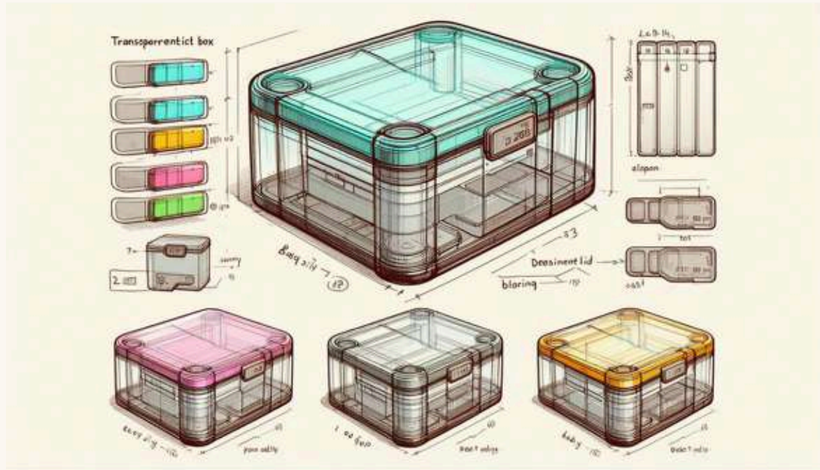
Stackable set of transparent boxes with LED and Alarm function. Each box has a different coloured LED with matching LED and a space on sides to write its content

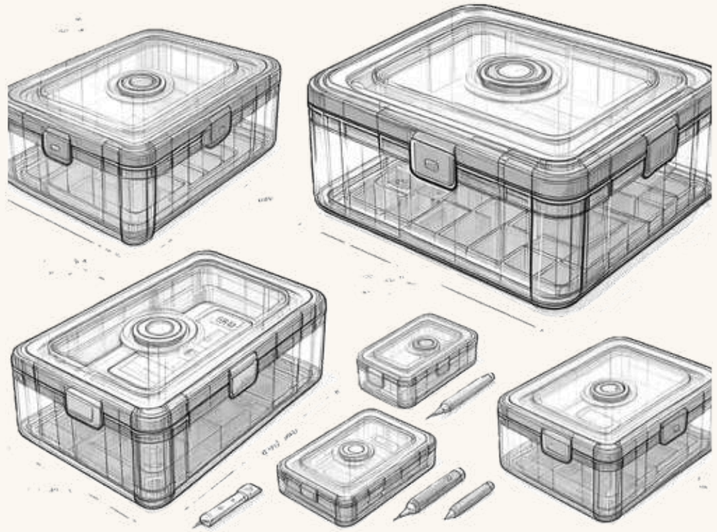
Working

The LED and Alarm is controlled by a simple remote console with a separate button of corresponding colour as on the respective box









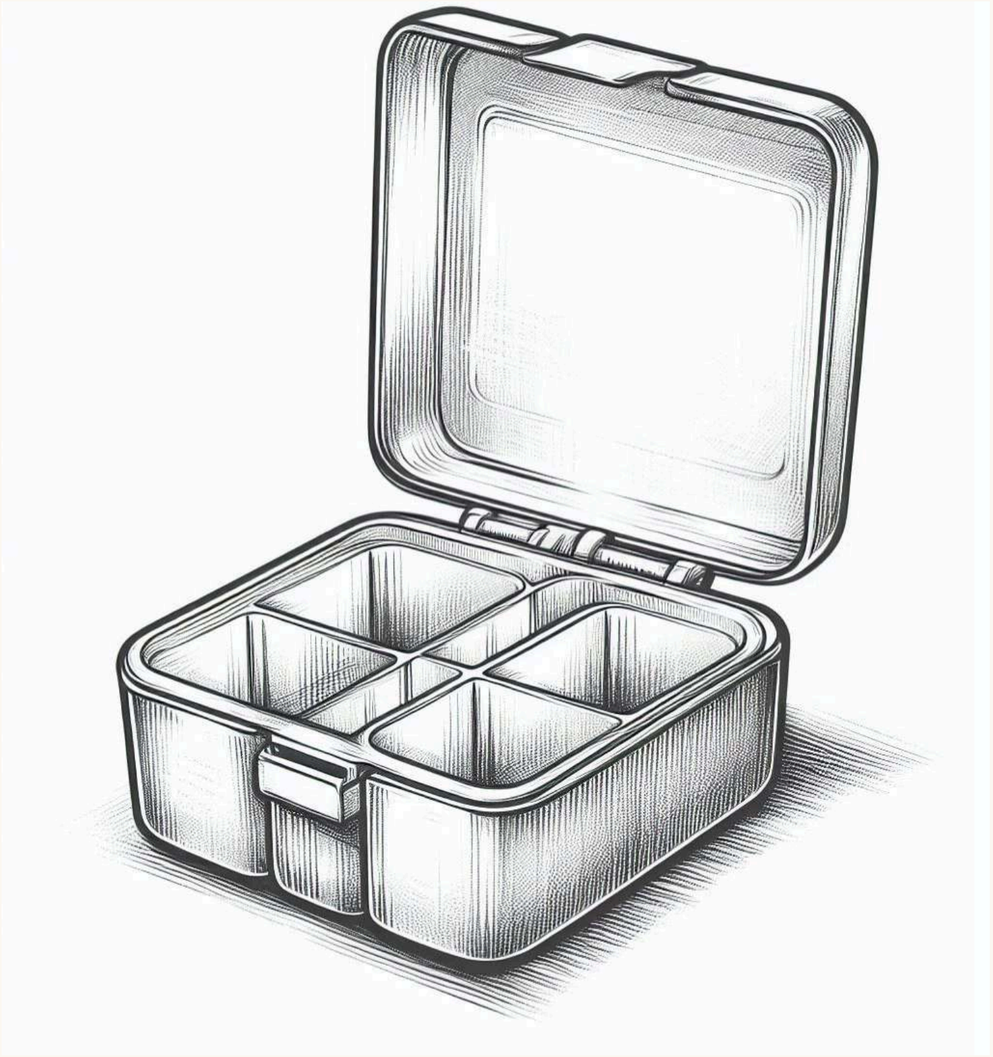
16

Description

A medicine box with four compartments for placing medicines to be taken in Morning / Afternoon / Evening / Night with different colored LED’s attached in each compartment.

Working

The box sounds an alarm at prefixed times during the day reminding the elderly to reach for the box and take medicine.



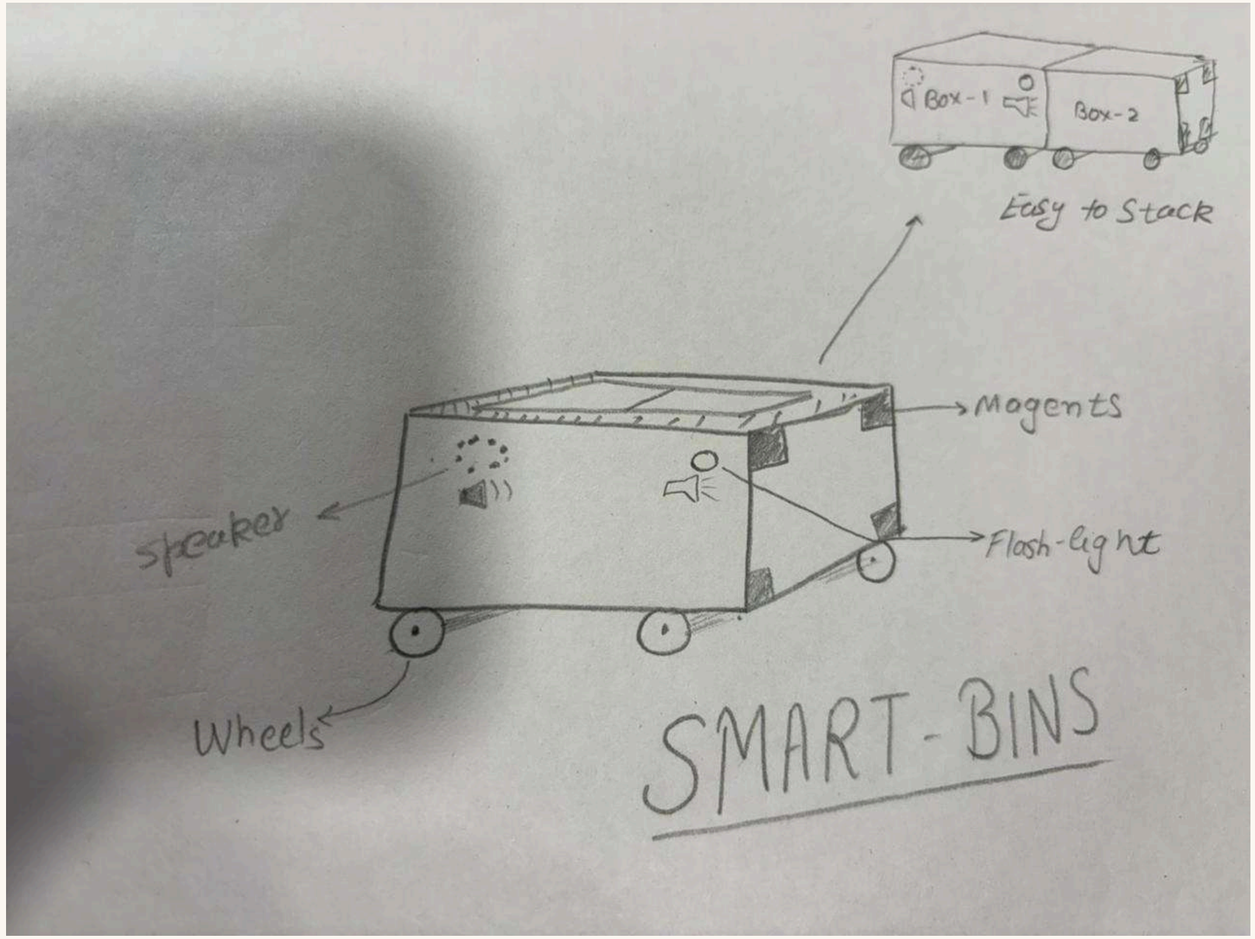
17

SMART BIN 1.0

‘SMART BIN 1.0’ is a user-friendly solution designed to help the elderly locate their misplaced belongings effortlessly and store their belongings.

Working

1. Wheels for better movability
2. Flashlight and Speaker to help finding when lost
3. Magnets to stack multiple bin together



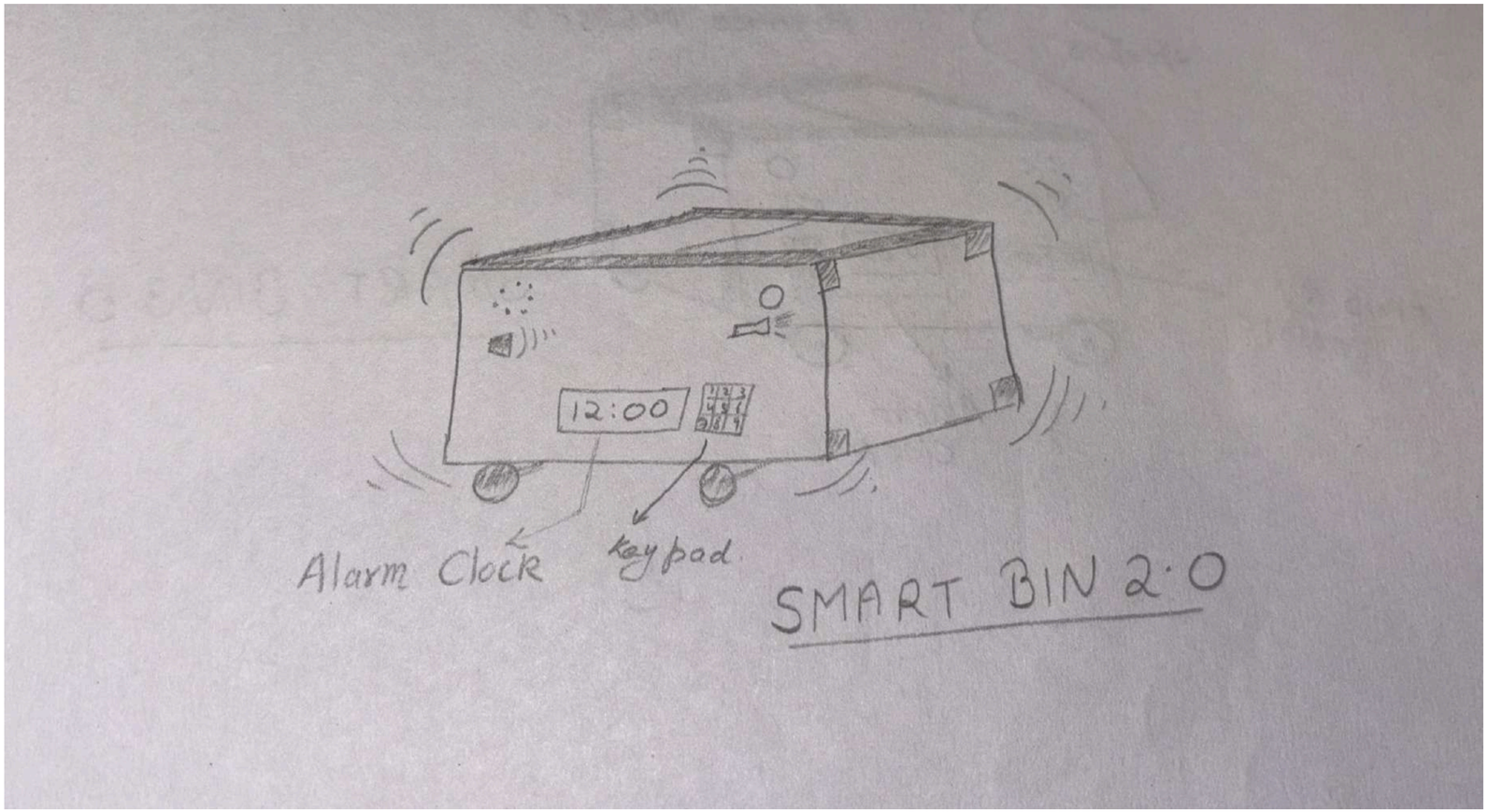
18

Description

‘Smart Bin 2.0’ is a user-friendly solution designed to help the elderly locate their misplaced belongings effortlessly, store them and set reminders.

Working

1. Sound, Flash and Vibrations when the lost button is present on remote.
2. Wheels to drag and move.
3. Magnets to attach to other
4. Clock with alarm



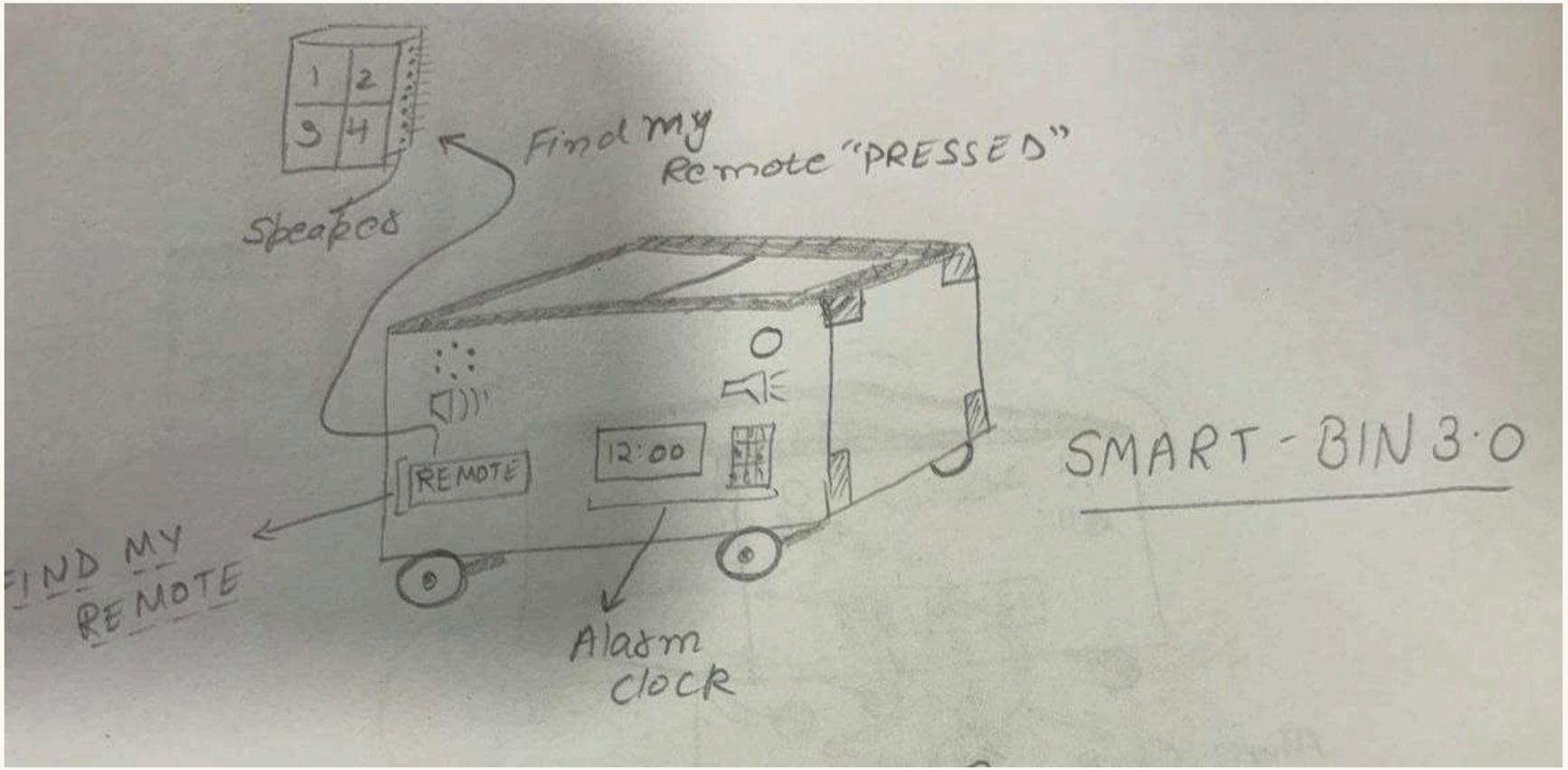
19

Description

‘Smart Bin 3.0’ is a user-friendly solution designed to help the elderly locate, store their belongings along with reminders. Also find other bins and remote.

Working

Each chip is equipped with a speaker and LED light, seamlessly integrated for compactness. Paired with the control board, users can attach FindEase chips to keys, spectacle cases, phones, etc.



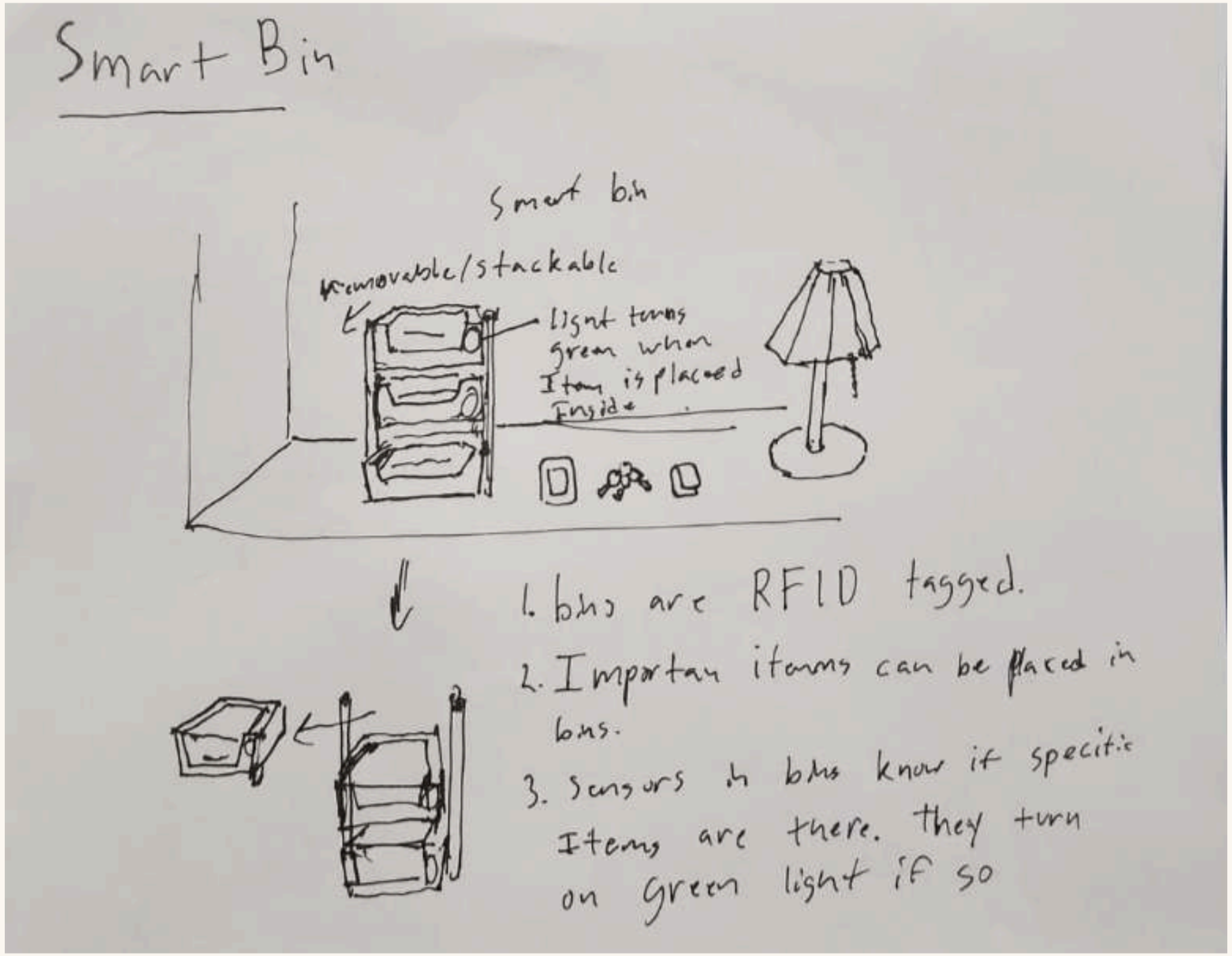
20

Description

‘FindEase’ is a user-friendly solution designed to help the elderly locate their misplaced belongings effortlessly.

Working

Each chip is equipped with a speaker and LED light, seamlessly integrated for compactness. Paired with the control board, users can attach FindEase chips to keys, spectacle cases, phones, etc.



21

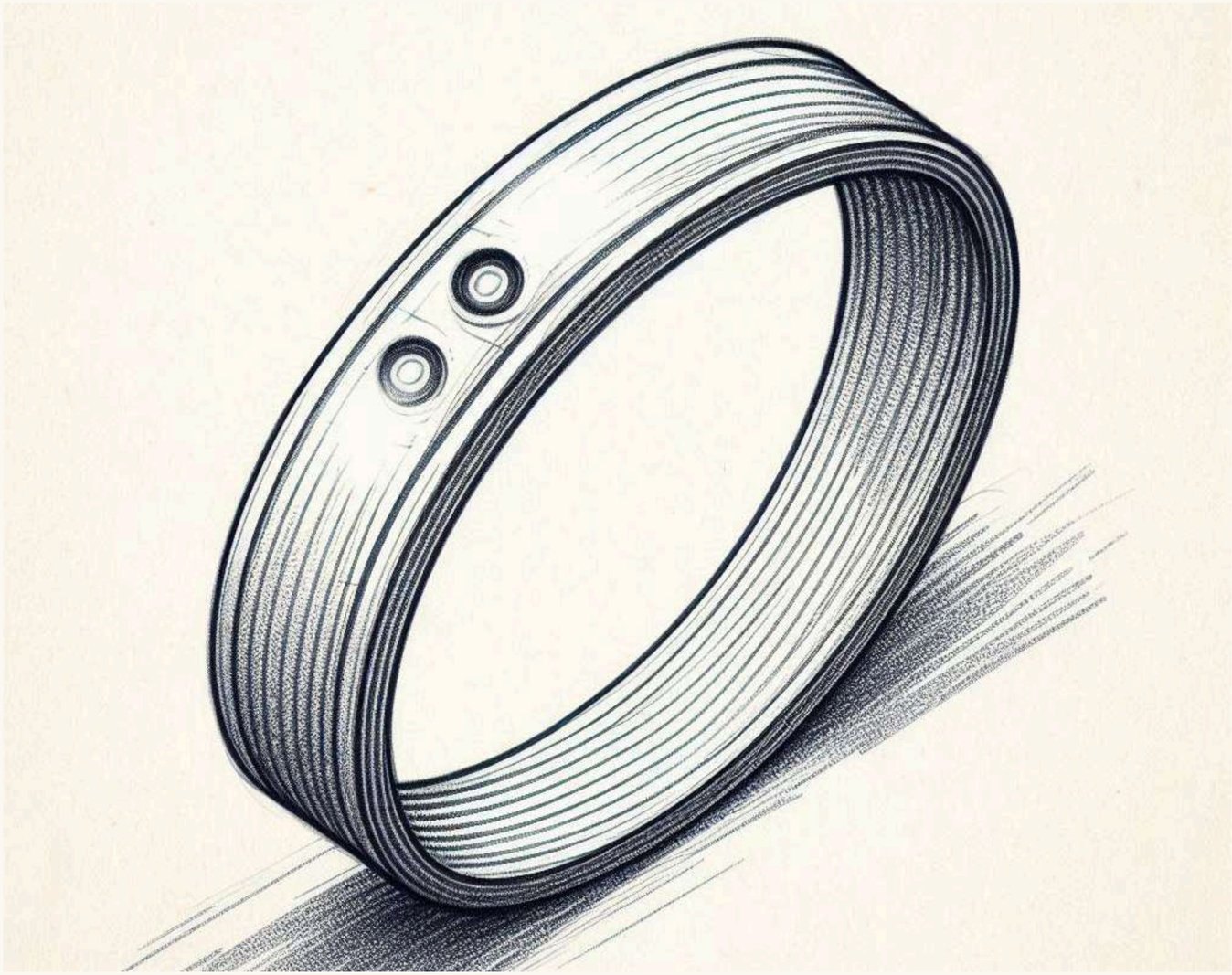
Description

The band can be put around any object which is prone to misplaced.

It can be worn on wrist or can be used as a key ring.

Working

An elastic band with LED and alarm which can be tracked using a phone app or a dedicated remote console.

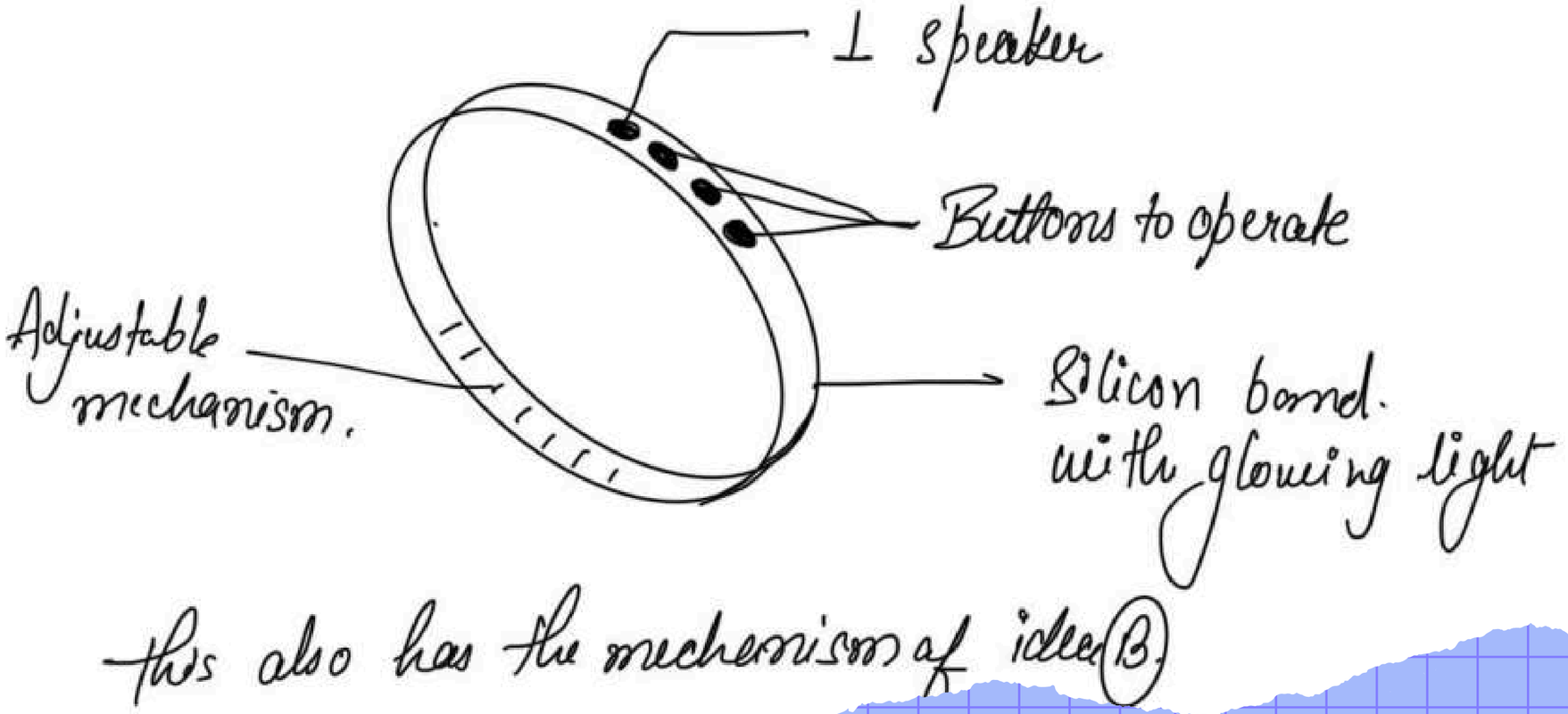


22

Idea D

Description

The silicon band with smart mechanism with speakers, torch, emergency button,footstep count, find-my-object.



Working

1. Wearable elastic band which can be attached to objects.
2. Button to find object
3. Fluorescent material for easy detection in night.

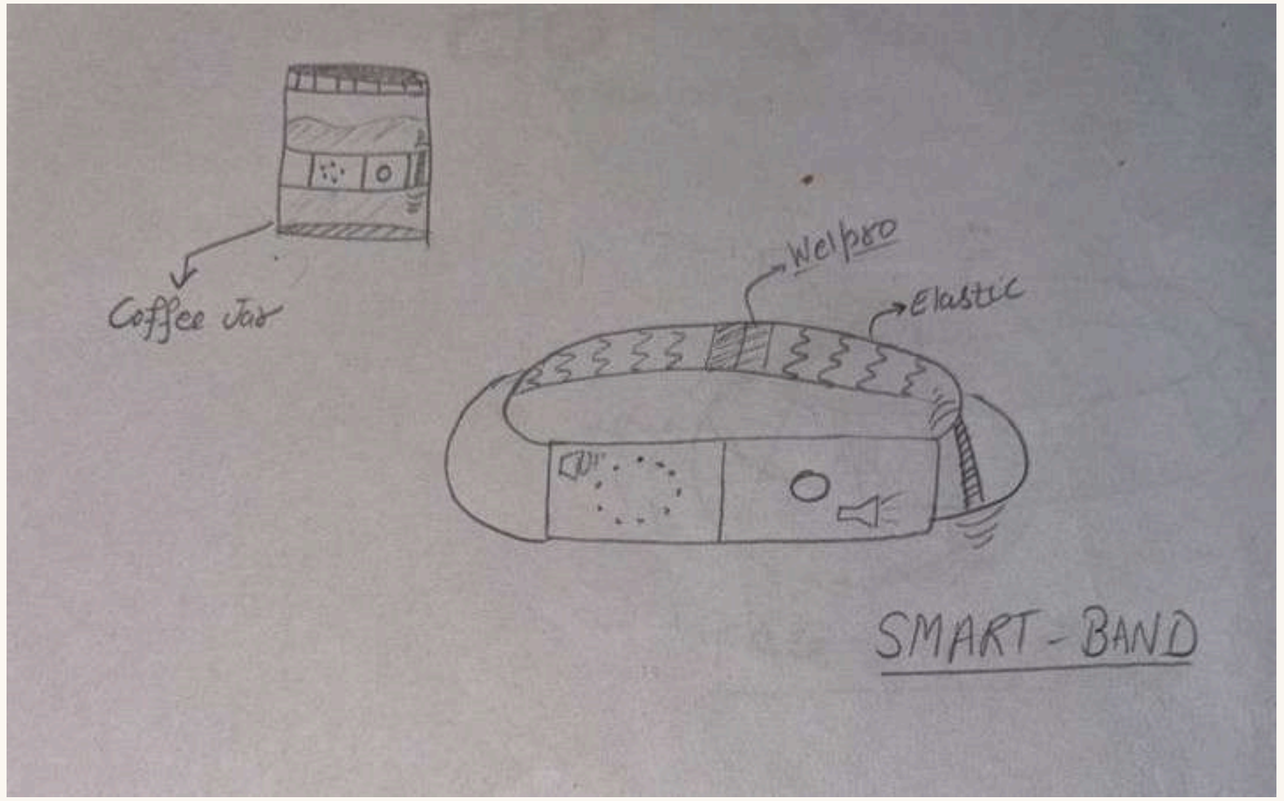
23

Description

‘Smart Band’ is a solution designed to help the elderly locate misplaced belongings. Gets attached to all kind of surfaces.

Working

1. Sound, flash and vibrations are produced.
2. Elastic band made of glow in dark material.
3. Welpro attached to tightly grip the object.



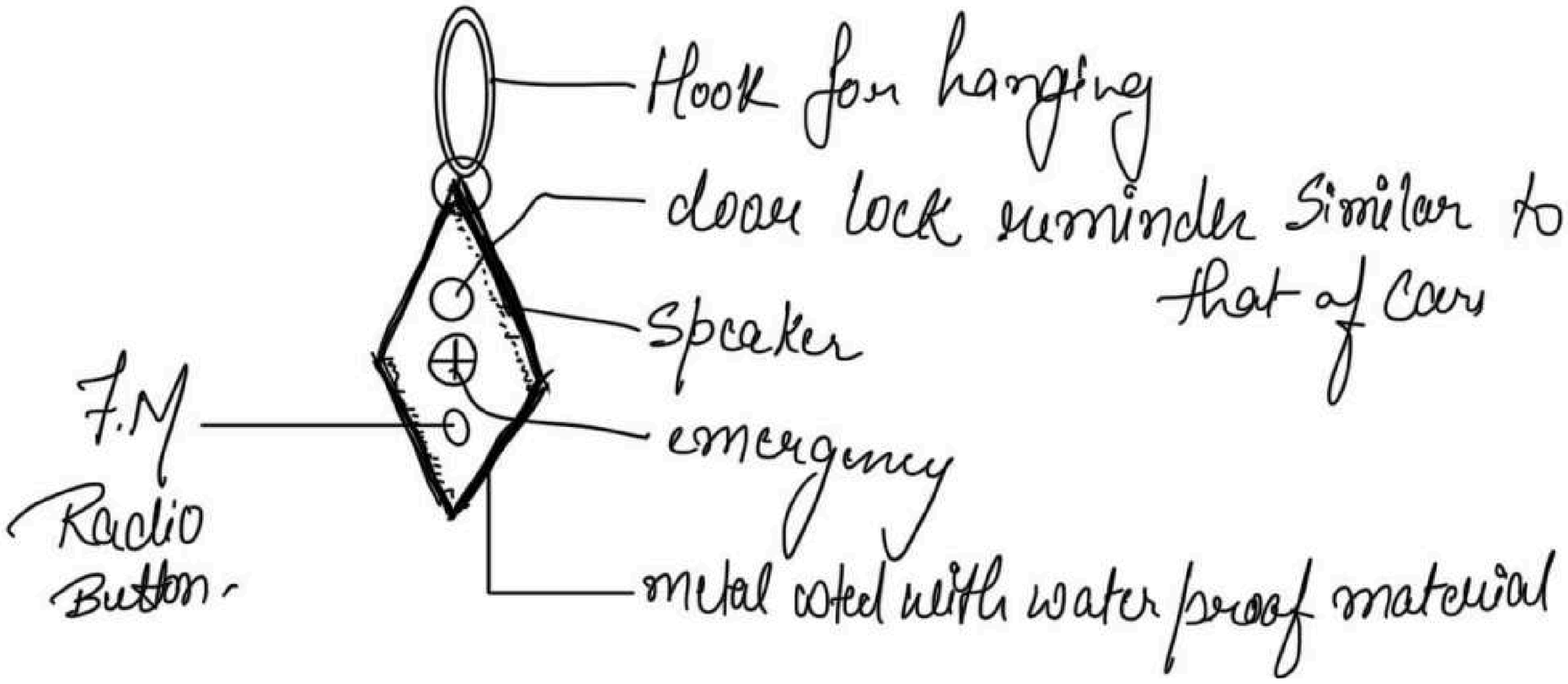
24

Description

Saftey Hook is a portable device easily hooked which can help the elders track the door locking and call for emergency

Working

That have a remort control with speakers,emergency machanism and mechanism to identify the the main door locking similar to that in Car



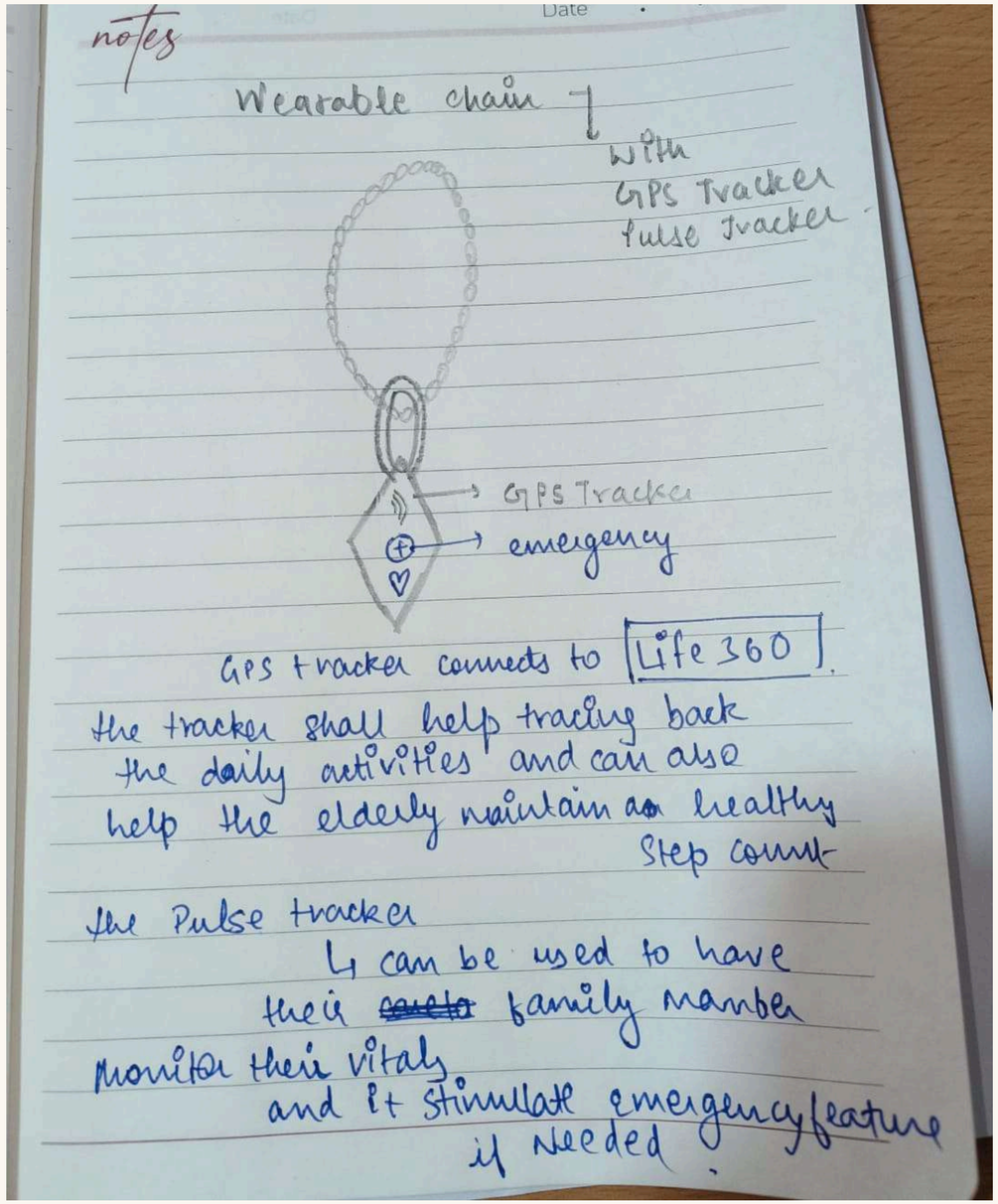
25

Description

Saftey Chain assists elders not only with the door locking but can track their location with Life360 along with vitals and trigger emergency notifications to family members if needed

Working

Linking the tracker along with Life360 can show live location updates to the family members and also having Pulse monitor and door lock tracker similar to cars



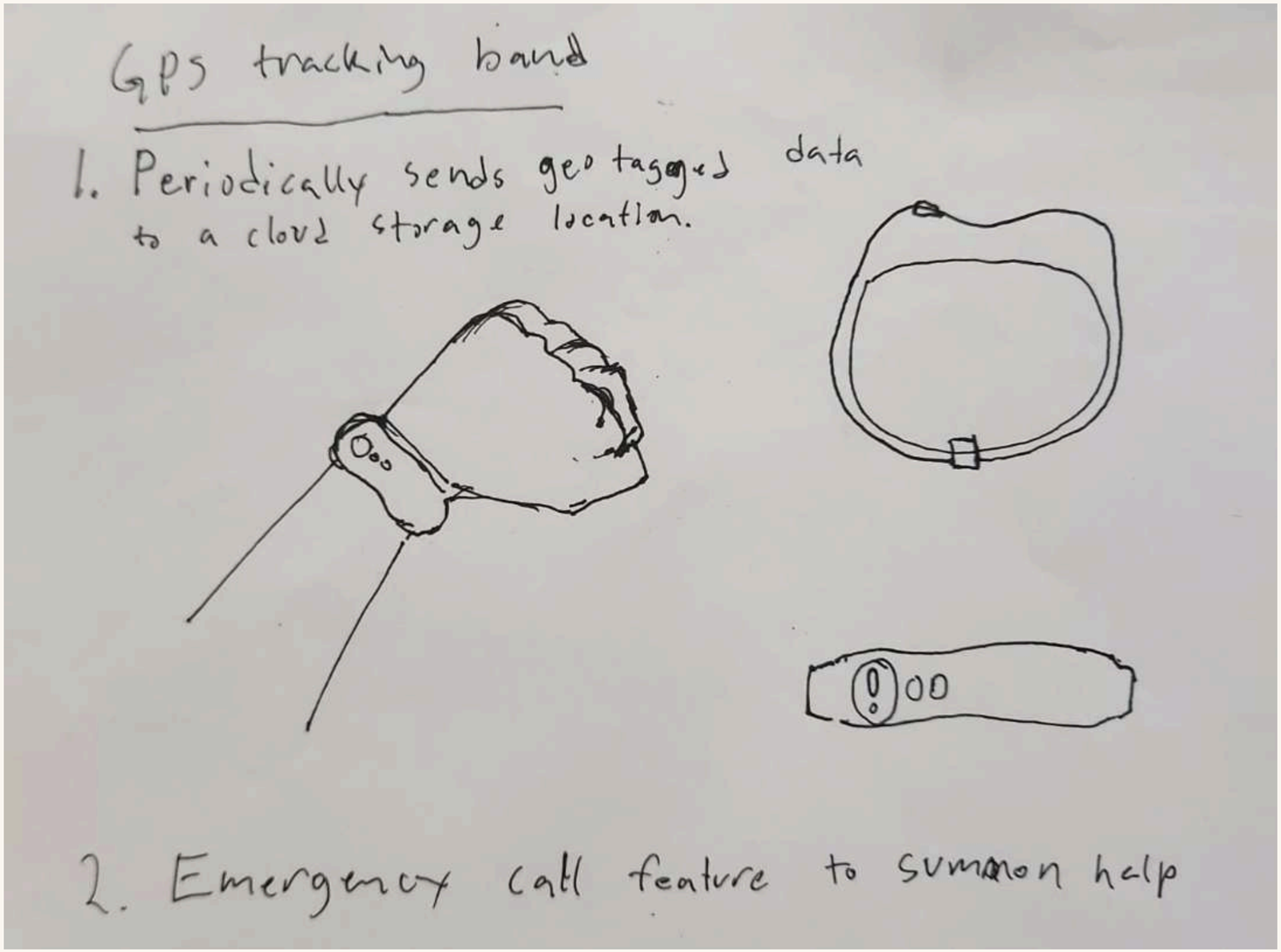
26

Description

‘Partner-Band’ periodically sends geotagged data to a cloud storage location . Also has an emergency feature whenever elderly need help.

Working

1. Had a GPS unit which periodically sends your location at the cloud so that you can trace the location.
2. Can also be attached to the object to track the object.
3. Emergency feature



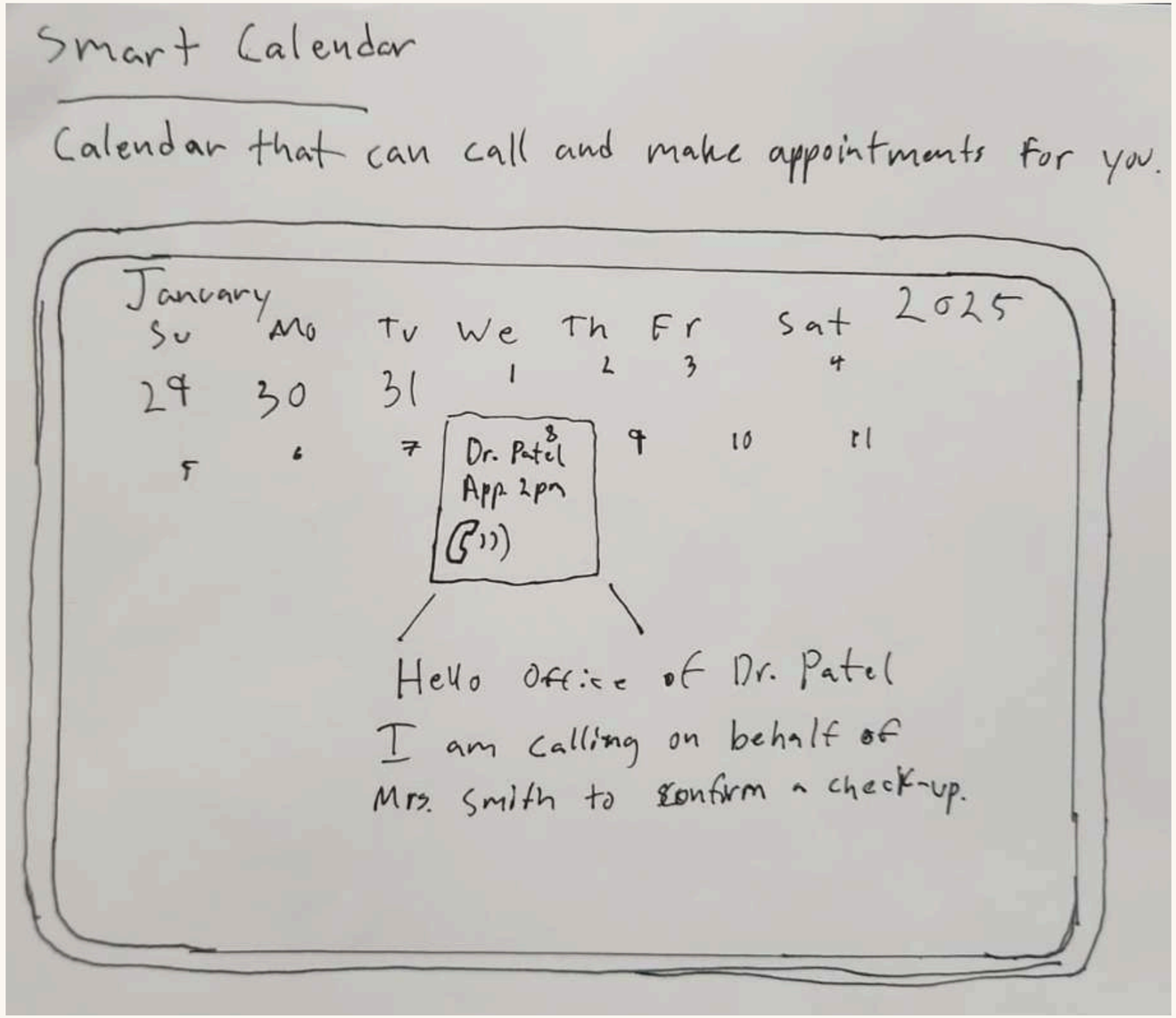
27

Description

This calendar helps elderly remember there doctor's appointment and log devices location. Using reminders and screen display

Working

1. Send reminders for the upcoming task like: taking medicine
2. Help keep track of the location of the object
3. Can be attached to fridge using a magnet back



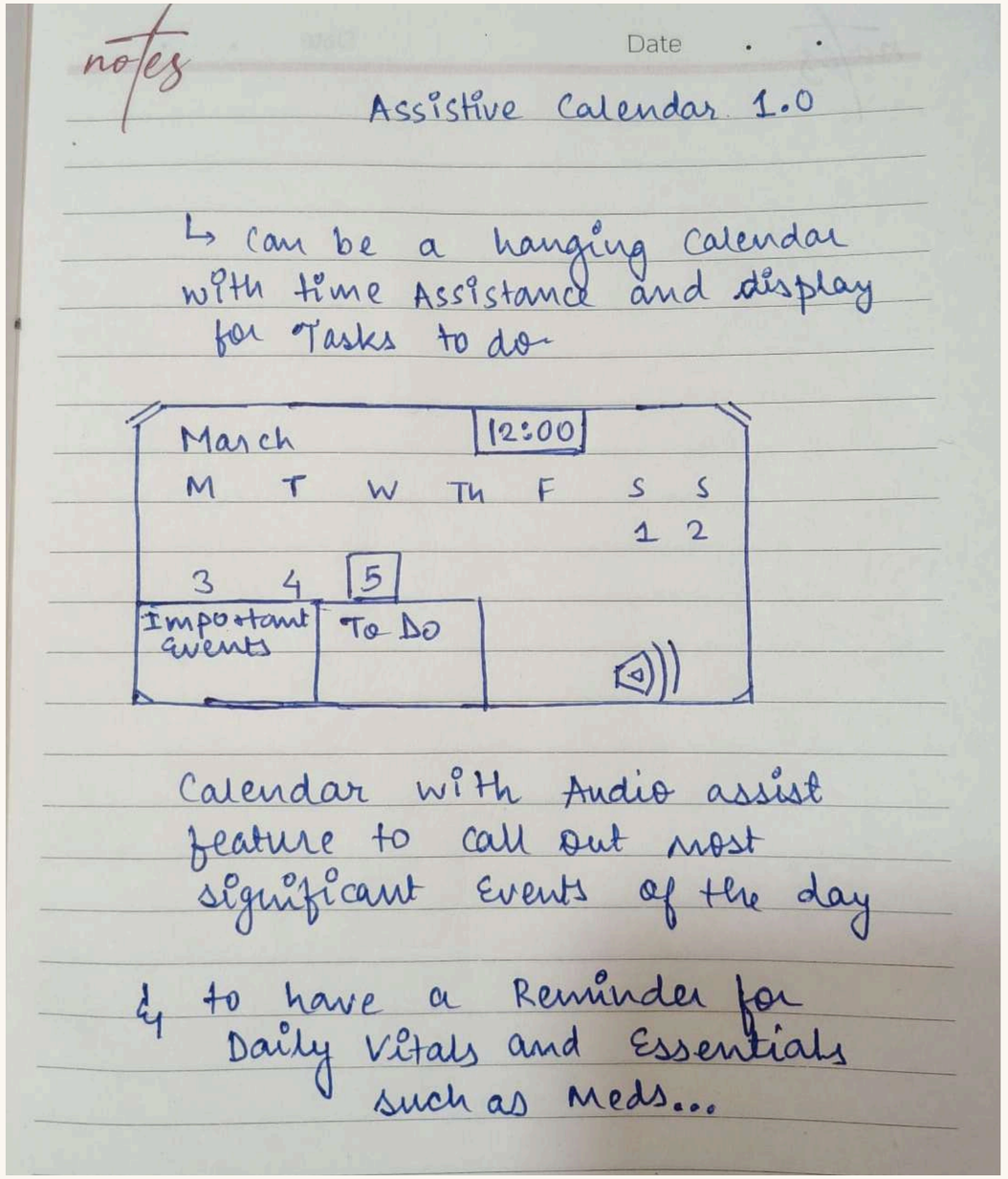
28

Description

"Assistive Calendar" is a user-friendly solution designed to help the elderly locate their misplaced belongings effortlessly.

Working

Calendar that can be kept hanging on the wall can iterate daily tasks as a reminder for elders.
We also provide audio assistance to keep a track of medical appointments and medicines



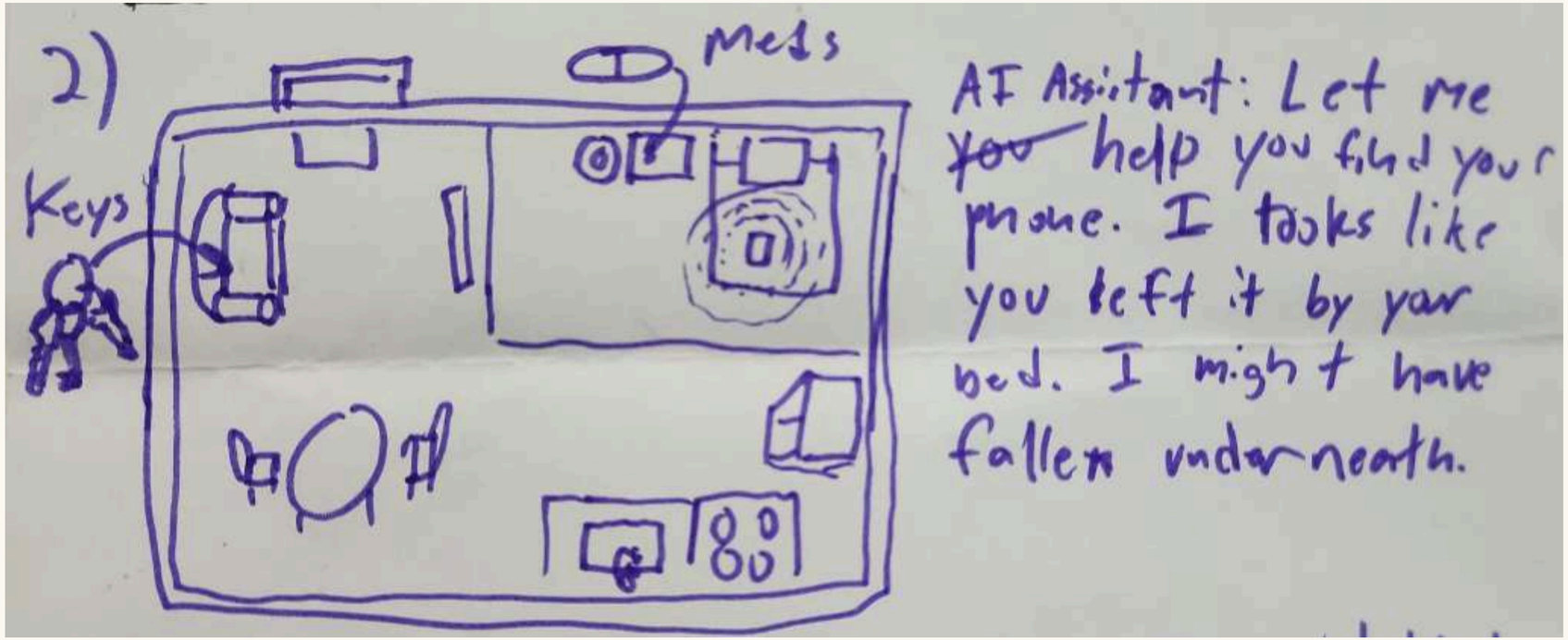
29

Description

This is an AI assisted image processing enabled device tracker which identifies the device and keep the track of them by their last observed place.

Working

1. Uses camera and classification ML algorithms to identify object.
2. Plots them in the house which can be seen in your phone connected through an application



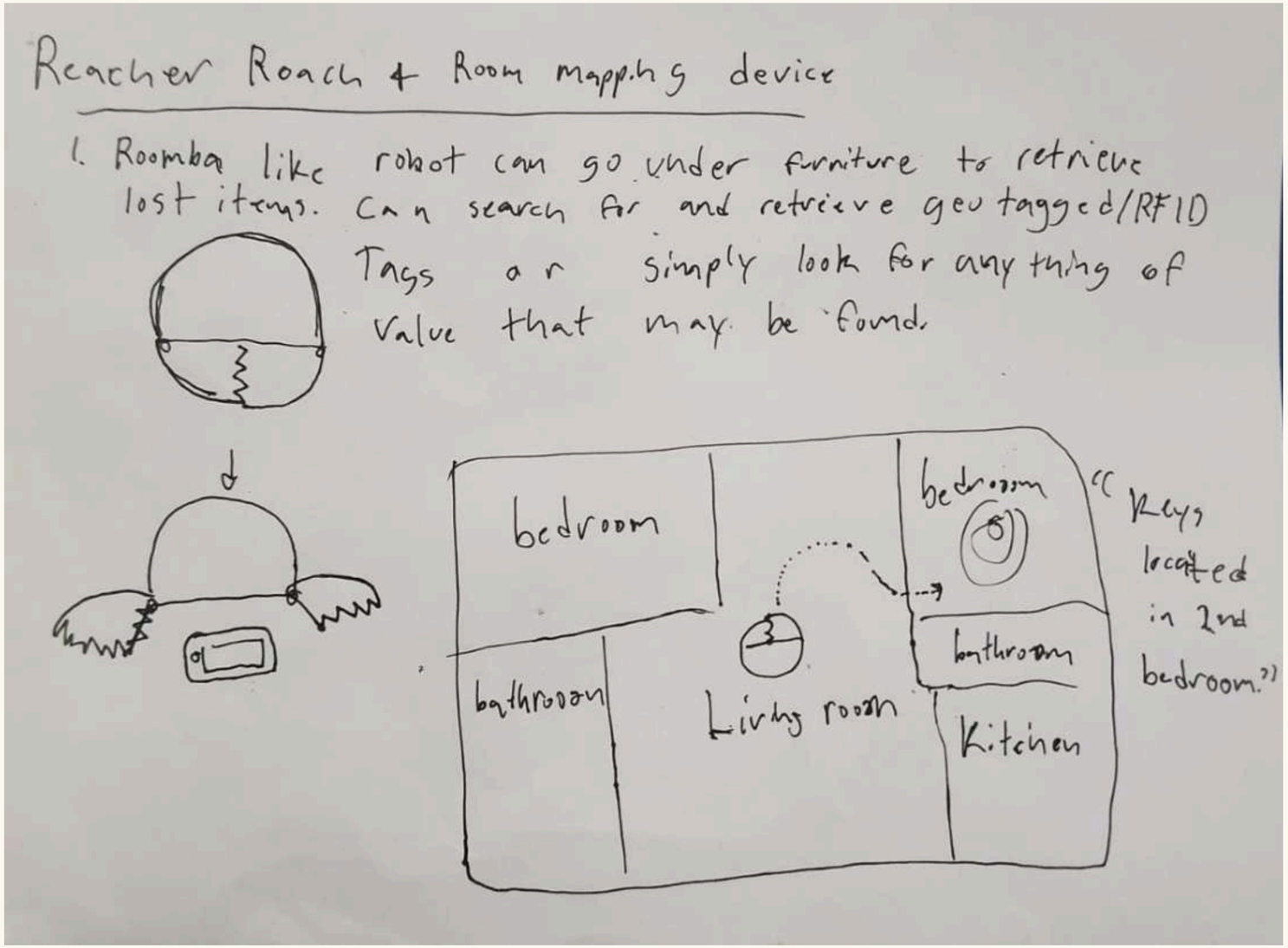
30

Description

Reacher Roach is a mobile robot which roams around and find the object you are looking for, catches and brings it back to you.

Working

1. Mobile robot which increase accessibility can go under bed.
2. Can detect the object.
3. Can catch the object and bring it to the elderly



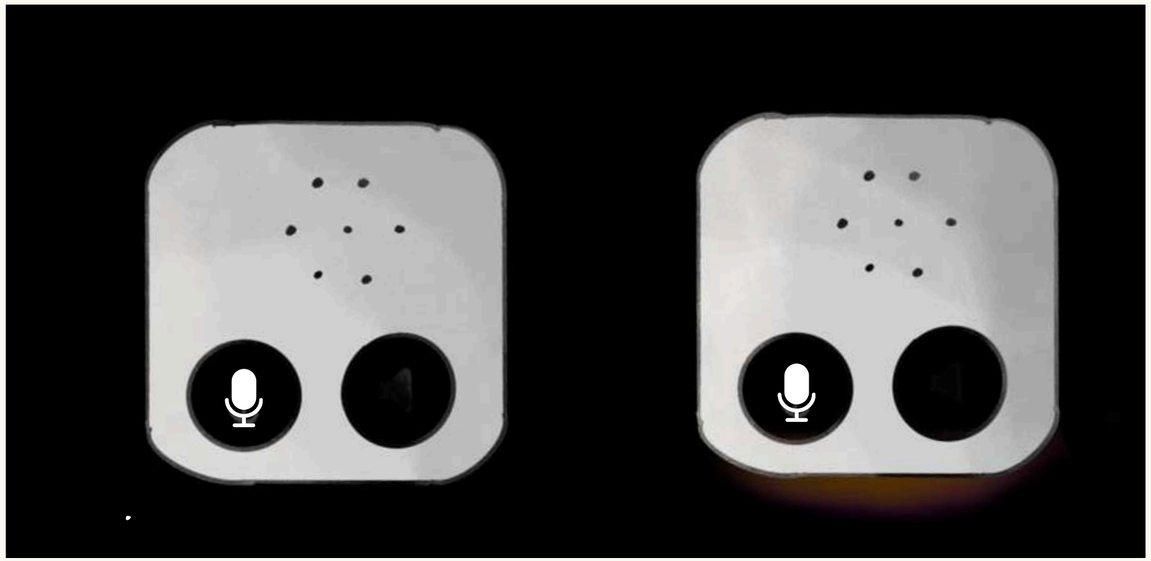
Final Concept

Description

“EchoNotes” a voice based note taking device. A small magnetic device that let’s elderly take audio notes

Working

When this device is holding a message, it glows to indicate. When the message is heard after once it was recorded-the light goes dim. After 24 hours the message will be automatically deleted.



The output unit can be placed in a location that is easily accessible to all household members, and it can also be attached to refrigerators or wardrobes