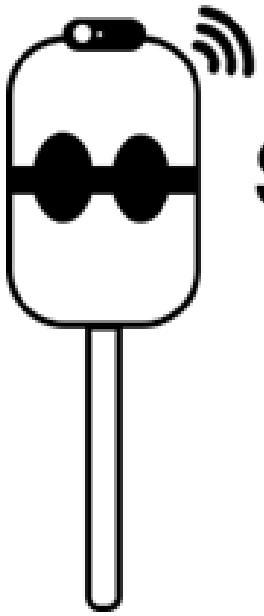

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HAPPY INDEPENDENT LIVING.

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DESCRIPTION OF SOLUTION :

- A white cane is used as a base model and hardware components such as RaspberryPi, camera module, IR sensor, ultrasonic sensor, motors to emulate haptics and buzzer are used to build the advanced smart white cane.

- When the user is walking in the streets and when obstacles such as a dog or a car comes in front of them then the camera detects the object and the distance of the object and conveys it to the user immediately so that the user can avoid the obstacles.

- When an slope, ridge or any small obstacles that come in the way of the user the ultrasonic sensor detects it and gives a beep sound indicating the same.

- Haptic sensors have been employed for ease in navigation for the VIPs

- If the user meets with an accident an alert will be sent to the users relative with the GPS location. We have integrated maps for easy navigation.

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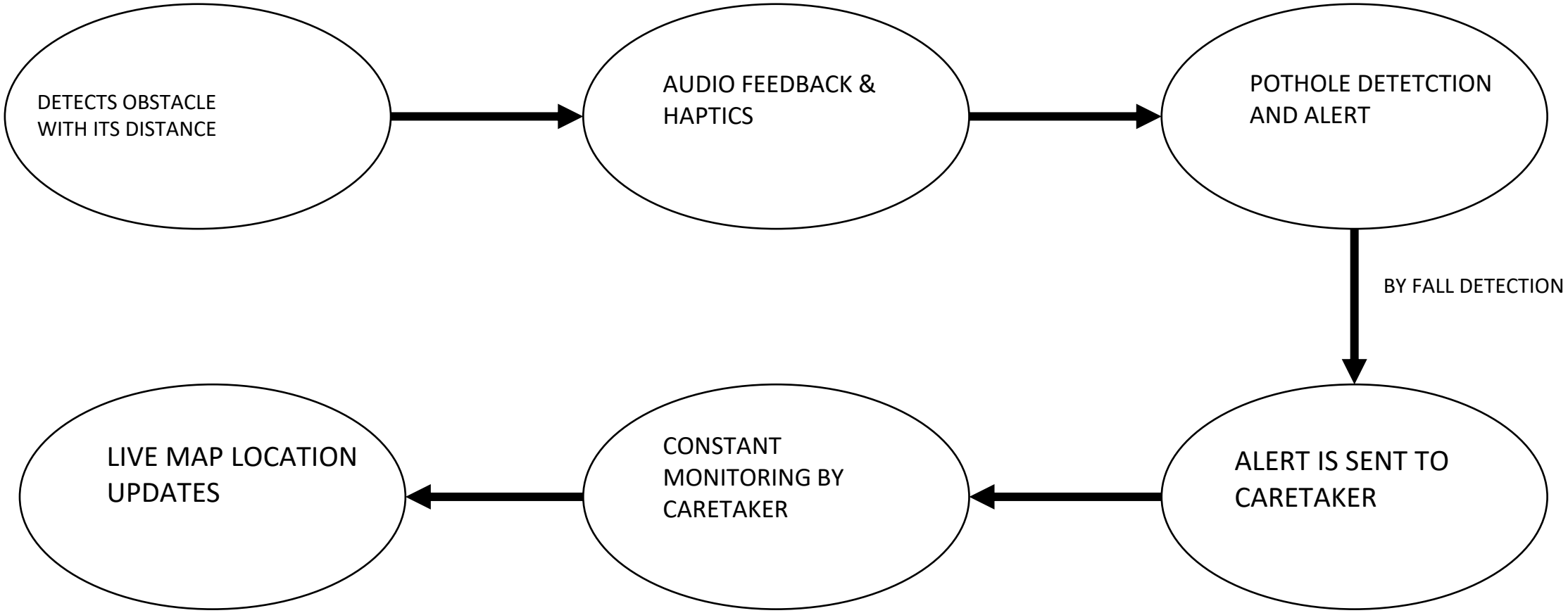
PROCESS FLOW



SVCE

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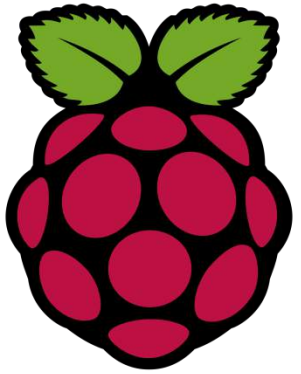
TECHNOLOGY STACK



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USE CASE

- LIVE LOCATION UPDATES
- FALL DETECTION
- OBSTACLE DETECTION ALONG WITH THE DISTANCE METRICS.
- DELIVERED AS A FEEDBACK
    1. AUDIO FEEDBACK VIA BLUETOOTH
    2. HAPTICS TO GUIDE THEM

- VIP’S CARETAKER WILL BE ABLE TO TRACKAND MONITOR THEM.
- HASHING TECHNIQUES ARE USED FOR SECURE DATA TRANSMISSION AND PROCESSING

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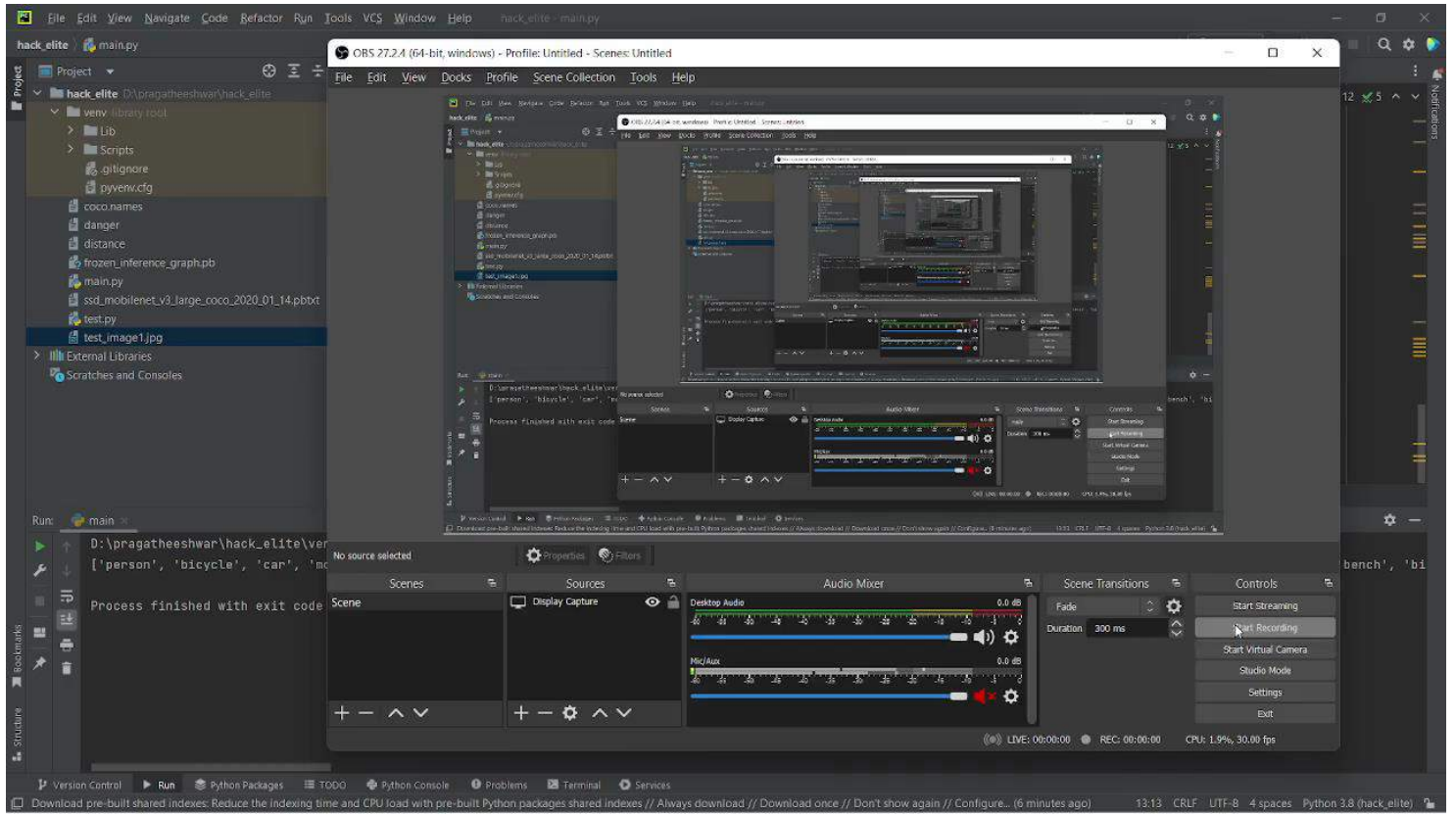
OUTPUT OF DETECTION & AUDIO FEEDBACK



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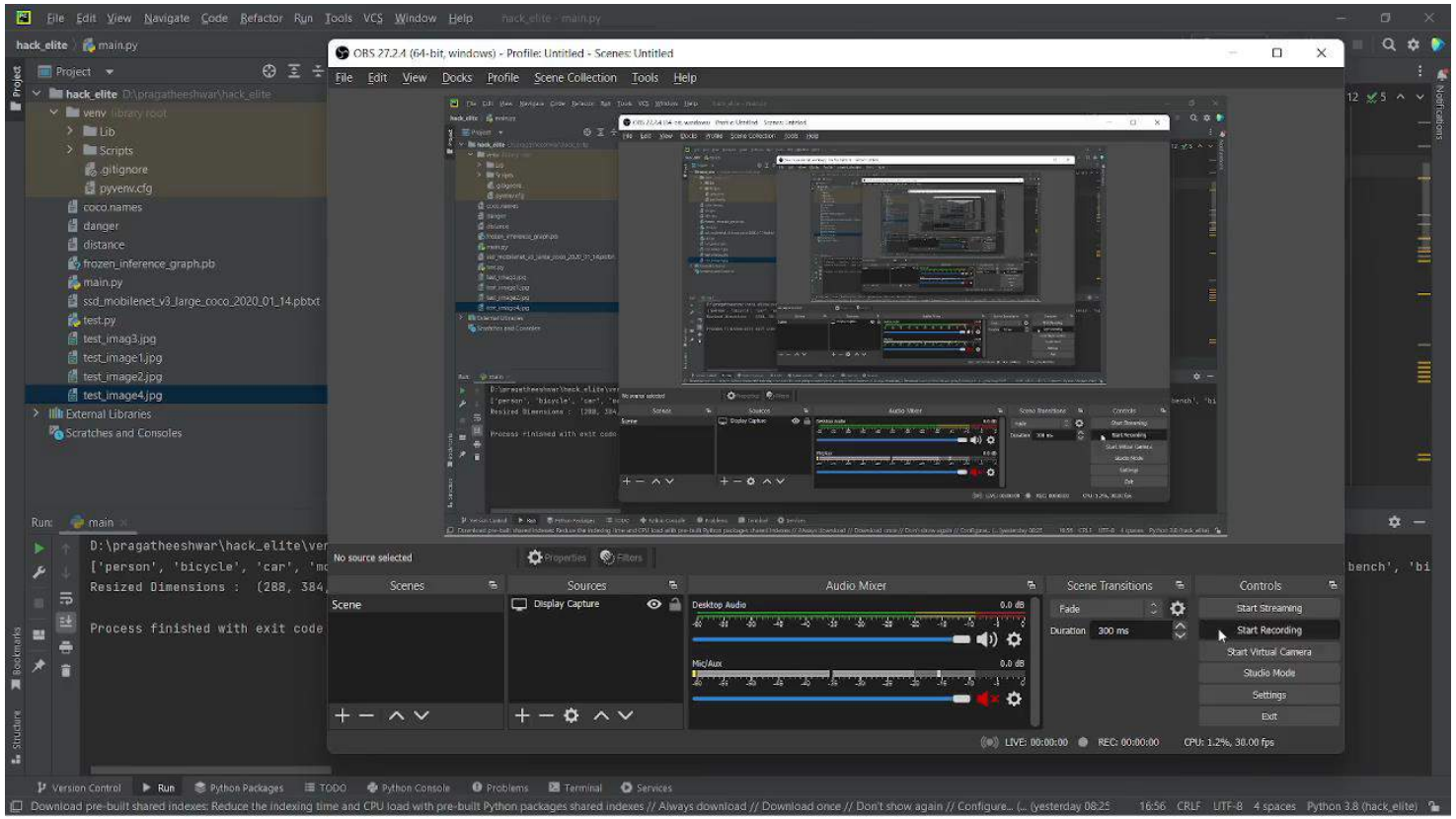
OUTPUT OF DETECTION & AUDIO FEEDBACK



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AUDIO FEEDBACK

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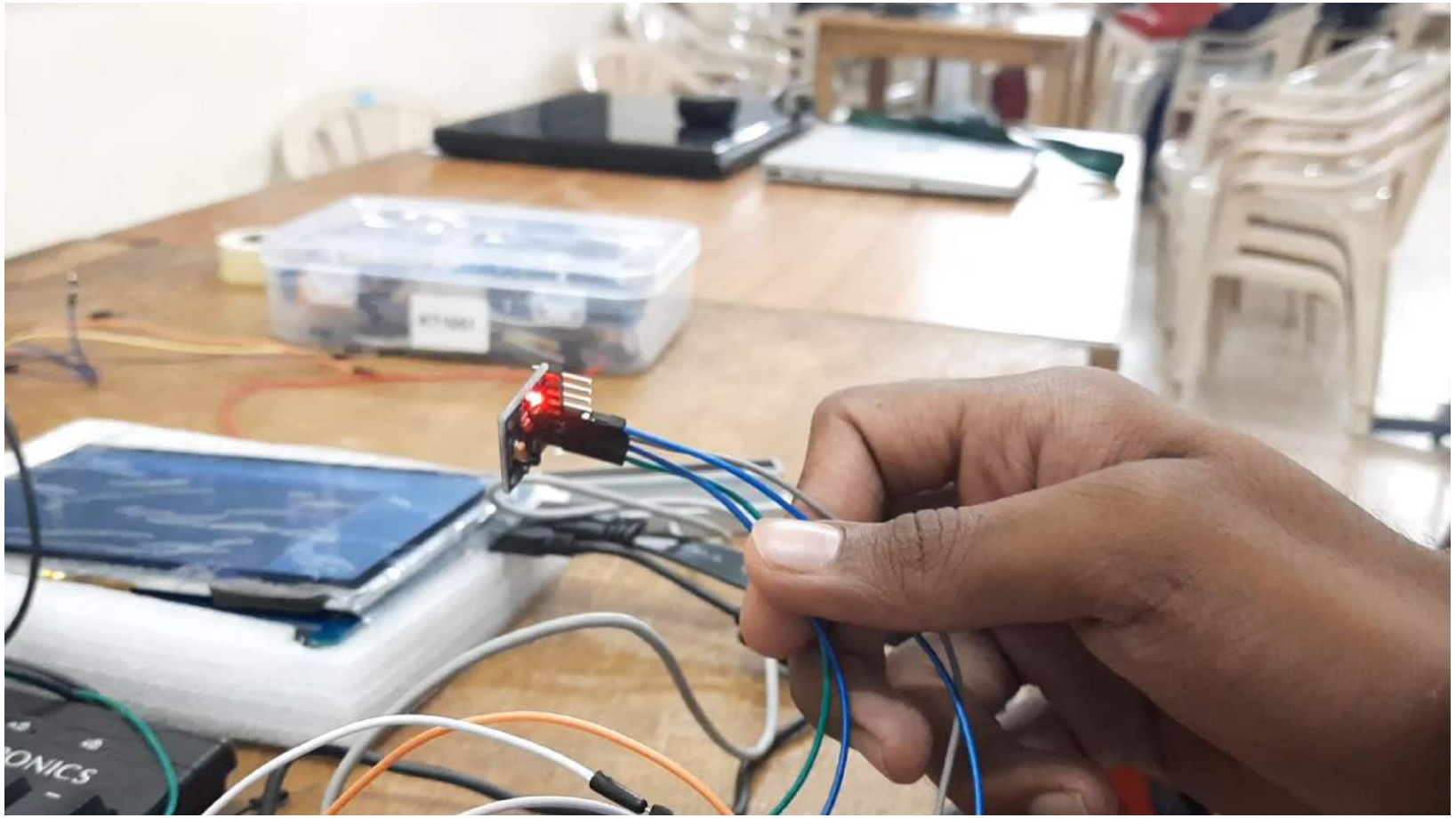
FALL DETECTION



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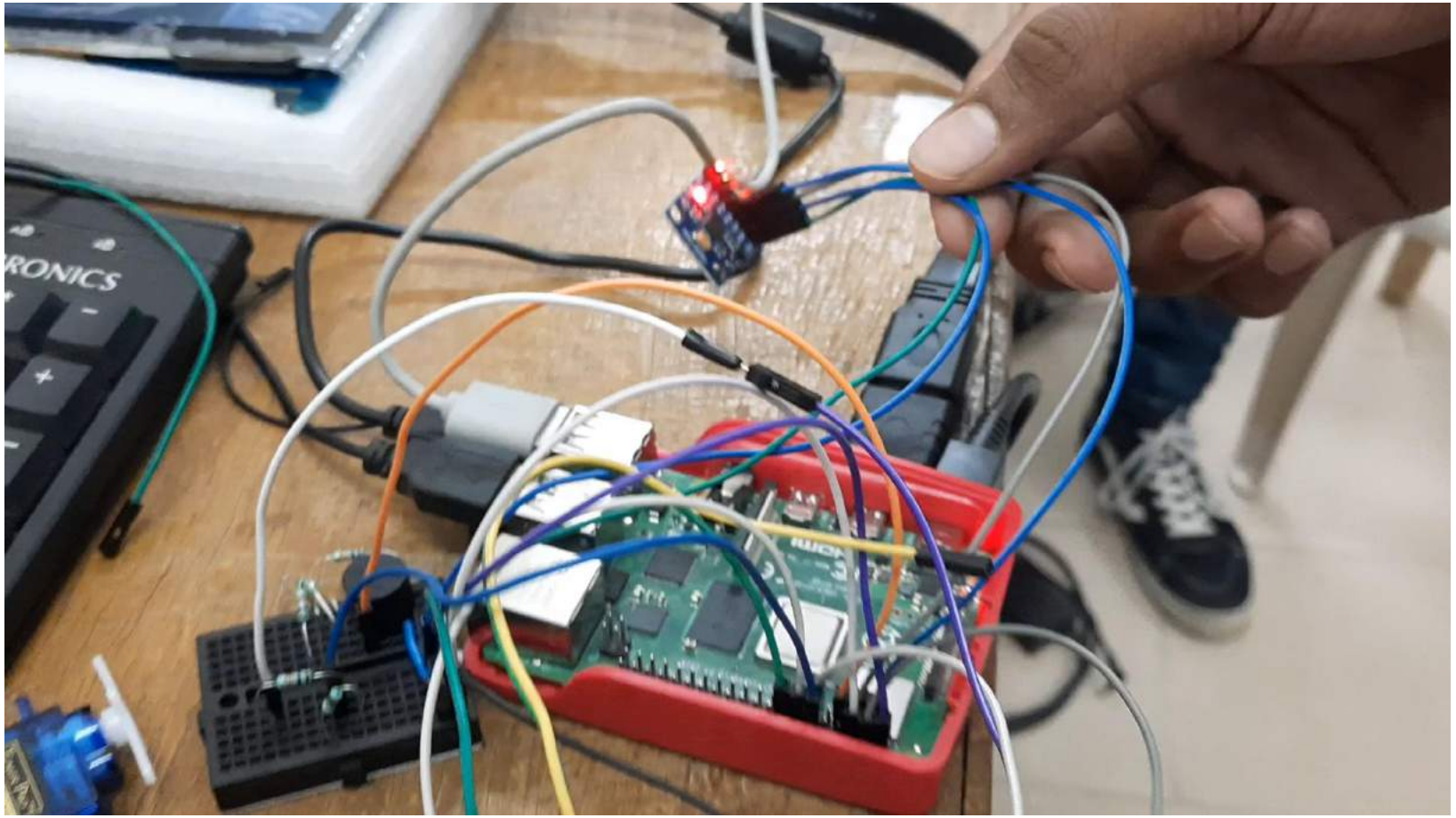
FALL DETECTION



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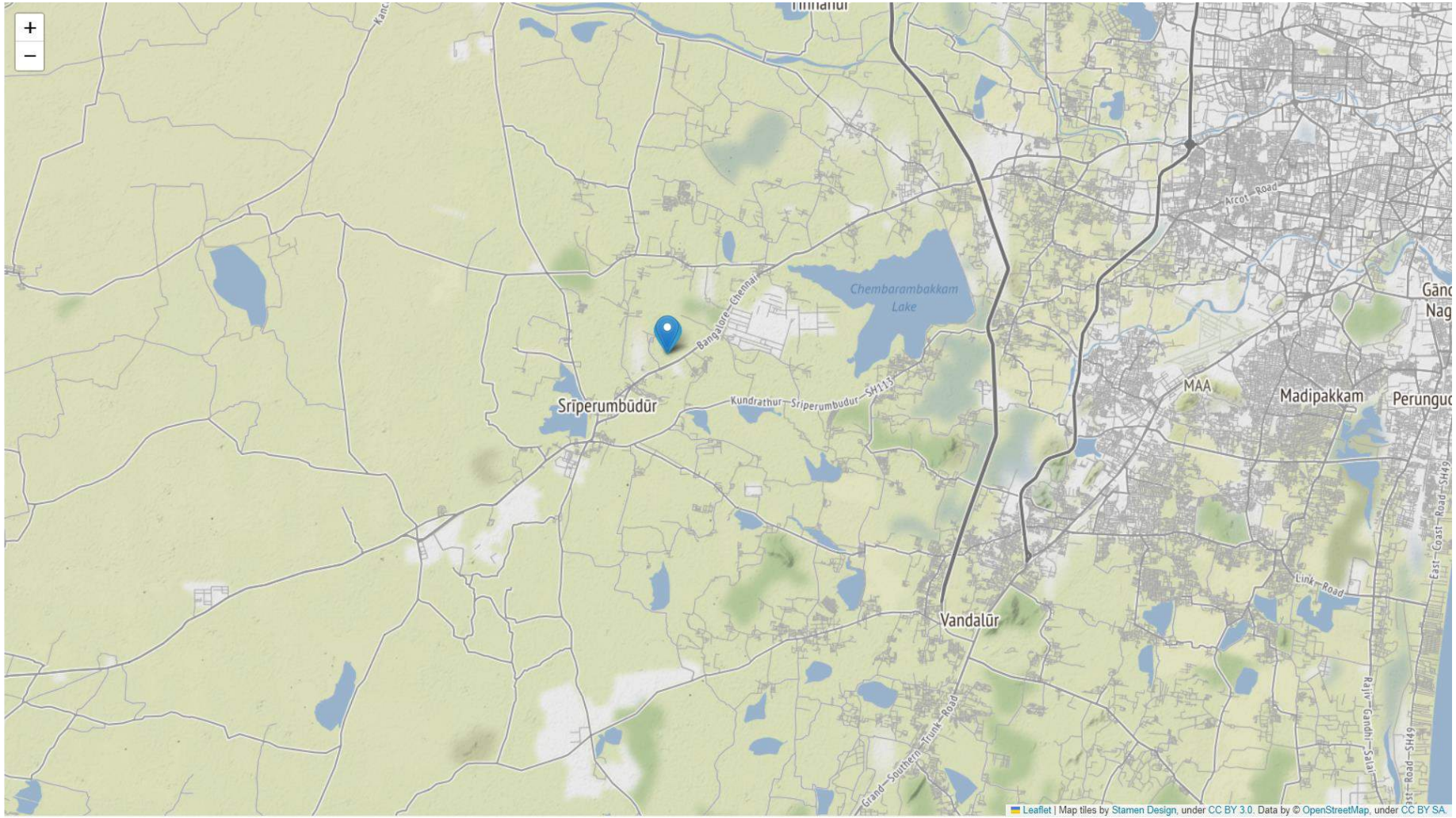
INTEGRATING MAPS



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OUR COMPETITORS

- WEWalk : A Turkish based smart cane , which is now a part of the Microsoft Cloud partner program

It cost’s you $599 which is about 49,000 INR

- SmartCane : An IIT-D incubated device which provides a ultrasonic sensing with a vibration pattern output.

It’s priced at 3000 INR.

IIT DELHI’S SMART CANE

WeWalk smart stick

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WHY CHOOSE US?

- WE HAVE MORE FEATURES THAN THEM
- THE COST AND CAUSE.

OUR EXPECTED ESTIMATE

- With some analysis on
  - MARKET DEMAND
  - MANUFACTURING COSTS
  - DISTRIBUTION AND MARKETING COST
  - SENSIVITY TO PRICE

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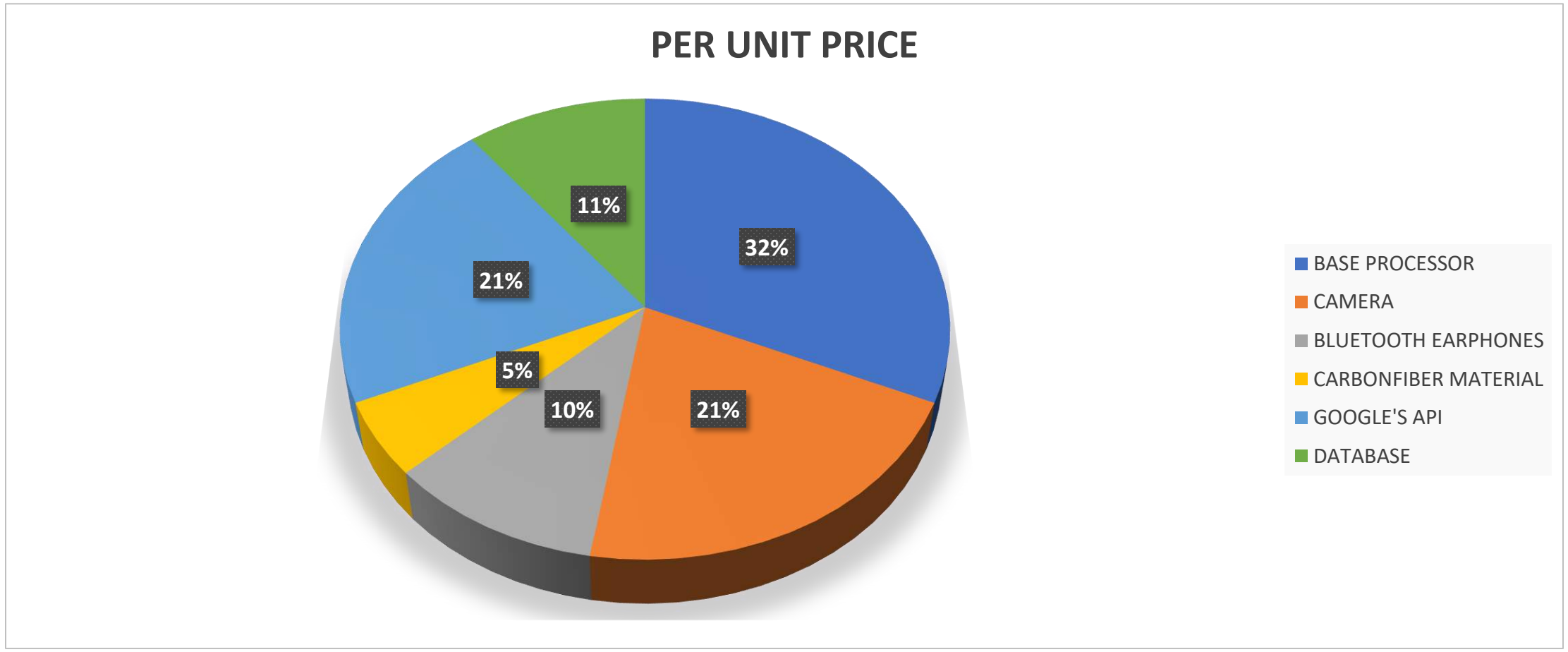
THE APPROXIMATE PROTOTYPE COST



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THE PROTOTYPE - COST

We found that the total investment for this smart cane to be approximate around 10,000 INR which was shown in a price split up pie chart

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THE ACTUAL EXPENDITURE AND PROFIT ANALYSIS

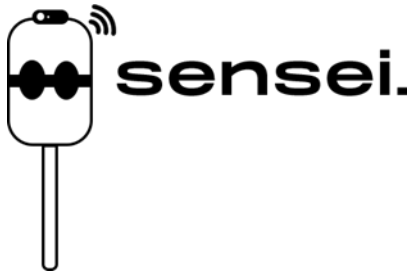
FOR ***100 UNITS*** produced in a ***month*** :

The Apprx. Expenses are shown below

- The actual product development and prototype cost = 6,50,000 INR (6500/unit)
- The Space and utilities = 2,00,000 INR
- Salaries/Wages = 1,50,000 INR
- Insurance , legal and accounting = 30,000 INR
- Technology and software = 10,000 INR

= 10,40,000 INR

THE SELLING PRICE OF OUR SENSEI STICK IS EXPECTED TO BE AROUND ***15,000 INR***



PROFIT MARGIN?

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The profit margin if there is a sell-through?

- Imagining a situation where all the units which are made are made to sell to the end consumers after they are been sold to the retailer or distributor , The profit margin may rise upto 40%.

- This can or may happen when we sell or distribute the units to an NGO or a govt. run organization .

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HOW DO WE PLAN TO MARKET THIS?

- As per our research and analysis from the availability of govt. schemes and NGO's we found some actively run organizations both governmental and NGO's
- Some of them are
    - Mitra project (have been giving employment over 26years)
    - NABET (National association for blind employment and training)
    - Sarthak edu trust (Placed 10,000+ VIP's in IT,BPO,RETAILS)
    - Kahani project

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PARTNERING WITH GOVT. & NON-GOVT ORG

- The potential we found to have at being a partnering /collaboration with govt and NGO’s seem to be helpful in the context of marketing our product are
    - Cost spent for targeted marketing is reduced
    - Will be eligible for perks like funding and other various policies
    - Better understanding of local market
    - Increase in credibility
    - Enhanced distribution channels

HOW WILL WE FUND OUR PROTOTYPE?

- The first initial stage of funding may be from a seed fund from any organization or we can plan on completely bootstrapping the startup.

- The above will pave the way for future attraction of investors or venture capitalists

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USP – UNIQUE SELLING PROPORTION

- ***With enough light on ROI and financial projections , addressing the USP is a must***

- ENHANCED SAFETY : This device is not meant to be a complete guide but it is made to enhance the security and to provide a companion like experience to the visually impaired.

- CONVENIENCE : The usage of haptic and audio feedback spaced at a proper interval without repetition and a controlled intensity , it can also be very handy if the user has any mobility challenges

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USP – UNIQUE SELLING PROPORTION

- REAL TIME UPDATES : The feature that sends live map updates can be a valuable tool for caretakers and family members to keep track of the user's location, providing them with peace of mind and allowing for quick responses in case of emergencies, also the update is not as fast, with an intentional delay it is first verified whether the user is picking up the stick, else the alert is sent to the nearby policestation/ambulance.

- FUTURE INTEGRATIONS AND COMPATIBILITY: Since this device is built with an internet enabled SoC , with OTA updates we can push new updates to the device and can have compatibility with other wearables and widely Smartphones.

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FINANCIAL PROJECTION

Month 2:
Units produced: 110 (10% increase from previous month)
Revenue: 110 x 15,000 = 16,50,000 INR
Expenses:

Product manufacturing cost: 7,15,000 INR (6500 x 110 units)
Space and utilities: 2,00,000 INR
Salaries/Wages: 1,50,000 INR
Insurance, legal, and accounting: 30,000 INR
Technology and software: 10,000 INR
Total expenses: 11,05,000 INR
Profit: 16,50,000 INR - 11,05,000 INR = 5,45,000 INR

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Month 3:

Units produced: 121 (10% increase from previous month)
Revenue: 121 x 15,000 = 18,15,000 INR
Expenses:

Product manufacturing cost: 8,66,500 INR (6500 x 121 units)
Space and utilities: 2,00,000 INR
Salaries/Wages: 1,50,000 INR
Insurance, legal, and accounting: 30,000 INR
Technology and software: 10,000 INR
Total expenses: 12,56,500 INR
Profit: 18,15,000 INR - 12,56,500 INR = 5,58,500 INR

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MONTH 4:

Units produced: 133 (10% increase from previous month)
Revenue: 133 x 15,000 = 19,95,000 INR
Expenses:

Product manufacturing cost: 8,64,500 INR (6500 x 133 units)
Space and utilities: 2,00,000 INR
Salaries/Wages: 1,50,000 INR
Insurance, legal, and accounting: 30,000 INR
Technology and software: 10,000 INR
Total expenses: 12,54,500 INR
Profit: 19,95,000 INR - 12,54,500 INR = 7,40,500 INR

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Will India be suitable for this?

- As per our analysis on the past data and the expected trend in visual impairment this product can seem to have good response

- As quick it cant get into a mainstream market ,unless it can be promoted through small community groups, NGO’s and some governmental organizations

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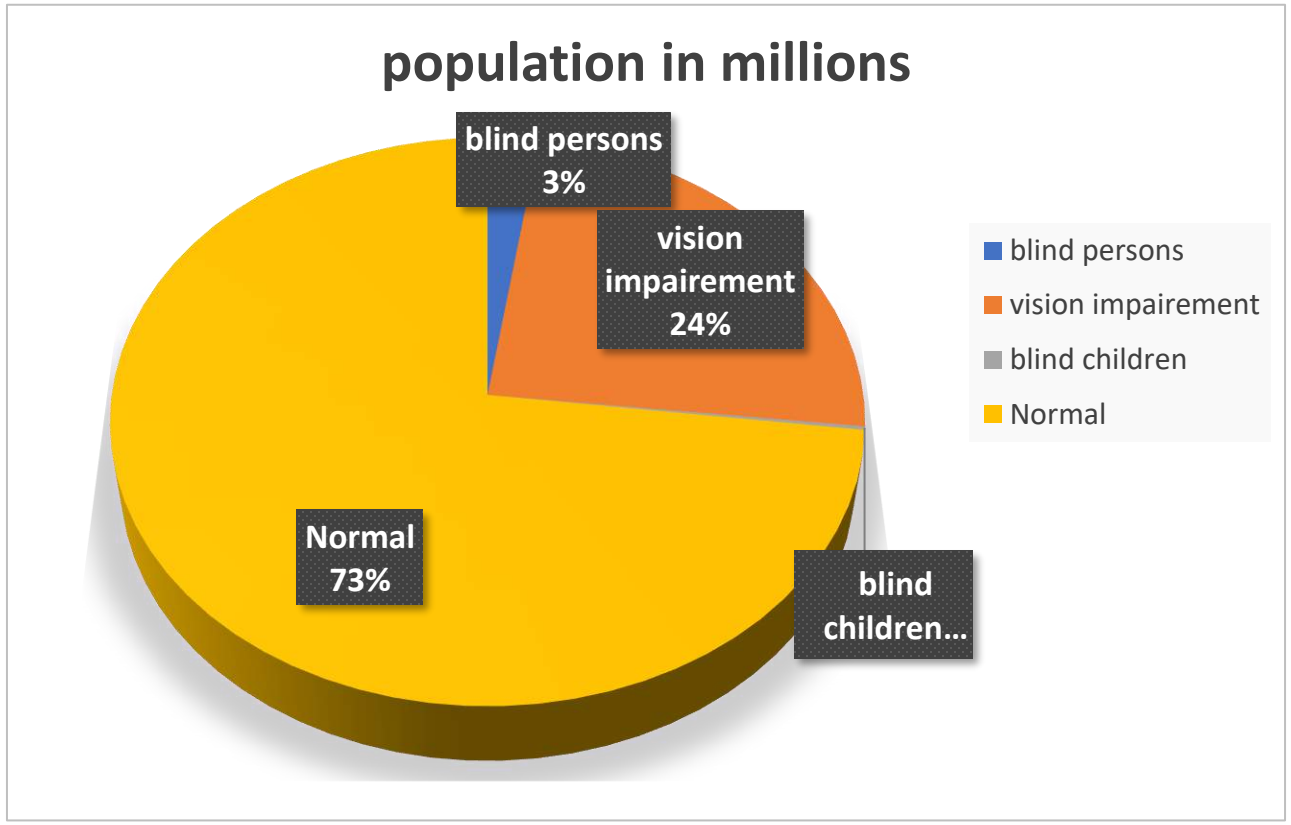
STATS OF INDIA

- ***Currently, there are an estimated 4.95 million blind persons and 70 million vision impaired persons in India, out of which 0.24 million are blind children***



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EYE ATTACK

- The total population of India as per current estimate is 1.38 billion estimated at an annual growth rate of 1.29% for the year 2020. There are 399 million children (29% of the population)
- The estimated prevalence of blindness is 0.36% of the population (4.95 million)
- The estimated prevalence of mild, moderate, and severe vision impairment is 2.92% (40 million), 1.84% (25 million), and 0.35% (4.8 million) of the population, respectively

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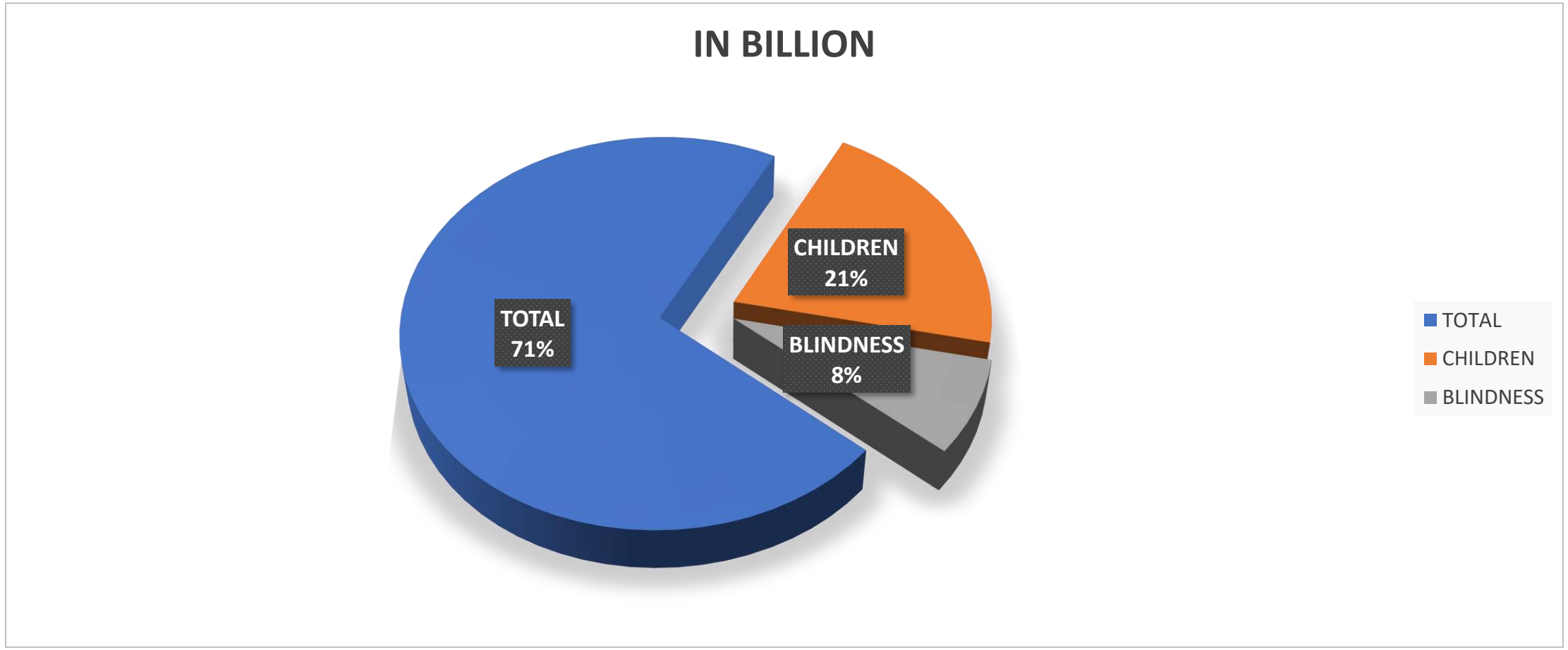
THE GENERAL PIECHART OF POPULATION PERCENTAGE



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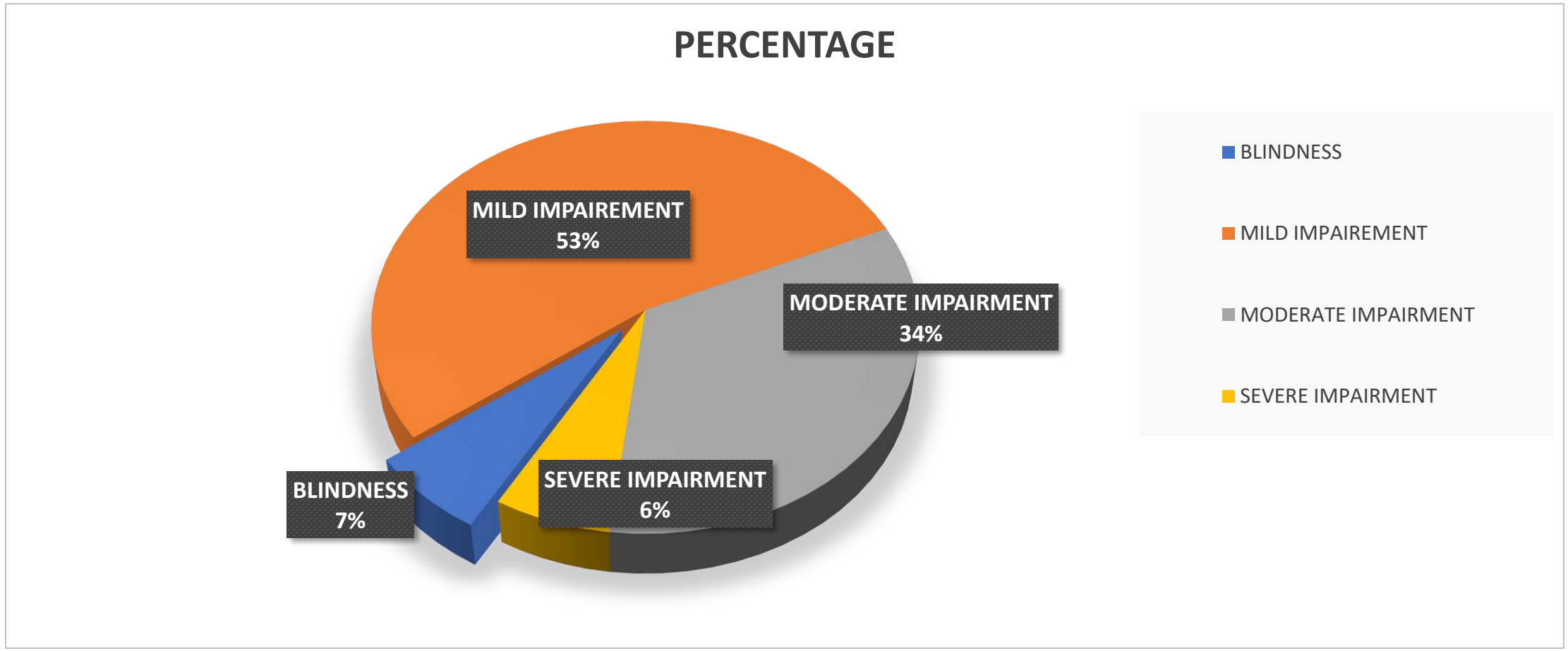
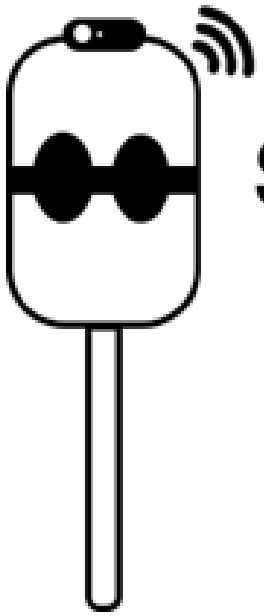
THE CATEGORY WHICH IS UNSPOKEN





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HAPPY INDEPENDENT LIVING.