



Indian Institute of Technology Kanpur

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Contact No. 6178

Intellectual Property Disclosure Form



1. **Title of the invention:** MemorEase: A Pocket-Sized Audio Reminder & Note-Taker for the Elderly and Memory Impaired
2. **Innovator(s) who have contributed or conceived an essential element of the invention, either independently or jointly with others during evolution of the technology concept or reduction to practice:**
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**Inventors are requested to provide their Full Name (without initials), Position (e.g Professor / Associate Professor / Assistant Professor, Post Doc / Phd / M. Tech / B. Tech Student), Phone Number (Personal), Email ID (Official along with Personal)*

**Students are advised to provide their home address as well.*

3. Non-Confidential description of the invention in layman's Language:

A. Abstract in 100 words

The device is an audio-enabled reminder system tailored for elderly individuals who may face memory challenges. It assists with reminders for daily tasks, medication schedules, and other essential activities, aiming to improve independence and health management. Designed for simplicity, the device records and plays back short voice notes, scheduled prompts, and has an easy-to-navigate interface, prioritizing accessibility and ease of use.

*PCT/ International filing is subject to support from the Project funds of the Inventor.

B. Use Case

The device is intended for elderly individuals living independently or with limited supervision who need support in remembering critical daily tasks and events. Caregivers or family members can also use it to record messages, ensuring that essential reminders reach the user without constant intervention.

Please consult examples provided in Annexure-1 for filling this section

C. Keywords

Elderly assistance, audio reminder, memory aid, voice prompts, medication reminder, accessibility.

Please be noted that the above keywords will be utilized by the IPR Cell for preparing Patent Search Report

Note: *Please note that the above Information alone will be circulated to several agencies for technology commercialization purposes once the patent is filed. Thus the fields should be self-explanatory to highlight commercialization potential.*

4. How does this invention relate to new processes, machines, compositions of matter, etc.? Please cover the following points:

- (a) Describe the invention in detail for technical evaluation. Please use additional sheets for sketches, drawing, photographs and other materials that help to illustrate the description:

The device is a portable audio reminder tool that records, stores, and plays voice messages. Equipped with a simple user interface, it features easy recording functions and customizable reminders, all optimized for accessibility, making it particularly useful for elderly users with reduced dexterity or memory recall.

- (b) What is Novel in the invention?

The novelty lies in its intuitive, minimalist design, audio focus, and features geared specifically toward memory aids, unlike existing products that are complex or multifunctional, such as smartphones or digital assistants.

- (c) What is the “inventive” step in your invention? Is the step non-obvious to a person from related fields?

The limited-functionality interface, and streamlined accessibility enhancements aimed at elderly users. Unlike general-purpose reminder apps, this device is explicitly optimized for memory support without other distracting features.

- (d) What are the advantages of the present invention over comparable inventions available in patent literature? Please attach a summary of your patent search*.

Compared to more complex devices, this product focuses solely on audio-based reminders and simple usability, which distinguishes it in functionality and accessibility for an elderly demographic.

- (e) NOTE: The inventors should go through the Patent Search report carefully and write the difference between his/her invention and each contents of the patent search. For Patent search please contact ipr@iitk.ac.in

- (f) Has the invention been tested experimentally? Are experimental data available?

Currently, our device is in the prototyping phase.

- (g) Technology Readiness Levels (**TRL**) description (mention the applicable stage of TRL given below). Please Mark as Appropriate with adequate justification.

- ☐ **TRL-1**
Research Idea
(Potential Application/Basic Principles observed)
- ☐ **TRL-2**
Applied Research Idea
(Hypothesis testing and initial proof of concept is demonstrated in a limited number of trials)
- ☐ **TRL-3**
Project Plan
(Device Characteristics documents & project proposal completed, Proof-of concept phase)
- ☒ **TRL-4**
Design and Development
(POC & Safety of device demonstrated by prototype design)
- ☐ **TRL-5**
Standardization
(Validating the result of the prototype by testing in simulated environment)
- ☐ **TRL-6**
Preclinical Evaluation
(Clinical trials of functional prototype)
- ☐ **TRL-7**
Technology Transfer
(Technology transfer of the developed system)
- ☐ **TRL-8**
Clinical Evaluation
(Evaluation of the system by clinical trials or demonstration)
- ☐ **TRL-9**
Commercialization
(Commercialization & Post Market Surveillance)

- (h) **Need and Demand**

(Technology gaps addressed in domestic & international markets, pain points of Industry which are being resolved)

There is a growing demand for accessible devices tailored to an aging population. This device addresses memory support needs in the elderly demographic, aligning with the aging population trends.

- (i) **Market Access Information**

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(Current Global & domestic Scenario, market size & CAGR)

The global and domestic market for an audio note reminder device, especially targeted at elderly users with mild memory impairments, shows promising growth potential. With around 55 million people worldwide suffering from memory-related conditions and 8.8 million elderly individuals in India experiencing forgetfulness. In India, the urban elderly population alone presents a potential user base of 3-5 million among middle-income groups, with further opportunities of about 7-10 million in rural areas.

CAGR -The complete market size is projected to reach over \$4.3billion with a projected CAGR of 19.1% in the period (2020-2025).

(j) Future Developments

(Scope of future technology development and their application)

Future versions could integrate voice activation, remote caregiver access, and data tracking to adapt to user needs over time.

(k) Application/s of the invention

(Please refer to Appendix-I)

Assistance for elderly users, memory support device, caregiver aid.

5. IPR Ownership

- (a)** Was the intellectual property created with the significant use of funds or facilities of IITK?

Yes

- (b)** Please describe any source of funding for the invention.

IITK, Department of Design

- (c)** What is the source of Salary/Remuneration of inventor/Co-inventor?

IITK

- (d)** Have you presented in any conference, seminar, etc., if yes, please give details?

No

- (e)** Have you published full/part of this invention, if yes, please give copy of publications?

No

- (f)** Was the intellectual property created in the course of or pursuant to a sponsored/consultancy research agreement with IITK? If yes, please enclose a copy of MOU with concerned project.

No

- (g)** Was the intellectual property created as a part of academic research leading towards a degree or otherwise?

*Submission of IPDF soft copy is Mandatory at the time of Patent document submission.

Yes

- (h) **REVENUE SHARING AMONG INVENTORS:** Please disclose the extent of contribution of each inventor in the invention in percentage terms for revenue sharing.

NAME OF THE INVENTOR	% SHARE*	SIGNATURE
1. Nachiketa Tiwari	14.28%	
2. Som Ashutosh	14.28%	
3. Rahul Raj Singh	14.28%	
4. Tina Soni	14.28%	
5. Ian Isaac Cox	14.28%	
6. Yashveer Yadav	14.28%	
7. Nikunj Muchhal	14.28%	

* If this column is not filled and signed then it will be assumed that all inventor(s) have equal contribution

6. Commercial potential

Give brief description of potential commercialization by specifying

- a) Why should the individual(s)/organization may consider procuring this innovation?

Organizations focused on eldercare, home health devices, or assisted living technology would consider this innovation due to the growing need for memory support tools in an aging population.

- b) These questions are related to the question (i) above:

- i. In your opinion what are the steps/processes must be undertaken by the procurer to commercialize the use of this innovation?

To commercialize, steps may include market testing, mass production, and forming partnerships with eldercare providers.

- ii. How long may it take to reach the commercial stage by the procurer?

2-3 years

- c) Please give specific list of companies and contact details of concerned person who can be contacted for initiating Technology Licensing

Sr. No.	Name of Companies	Name of the contact person	Contact no.
	N/A	N/A	N/A

*PCT/ International filing is subject to support from the Project funds of the Inventor.

(*Unsigned & Incomplete IPDF forms shall not be accepted).

d) Do you want to file Patent under PCT Route in other countries?

Yes ☐

No ☒

*PCT & Foreign filing is subject to monetary support from the inventor(s) Project / Personal Account. If the above option is marked "yes", kindly provide the Project Account Details from which the filing cost could be reimbursed.

Project Account Name:

Project Account No.:

***The institute shall file patent under PCT route only in those cases wherein industry/company has exhibited interest for commercialization.**

Disclaimer: *I/We declare that before the submission of this disclosure form or/and during the process of filing this invention as an IPR prospect, I/We will not publish the above information in public domain.*

I/We also give consent to IIT Kanpur being the applicant of this IPR prospect, that they may use this disclosure upon their discretion, which will not be limited to publication on e-auction website, Industry meets & different portals for promotional & licensing purposes.

Signature of Inventor with date

Signature of Inventor with date

Signature of Inventor with date

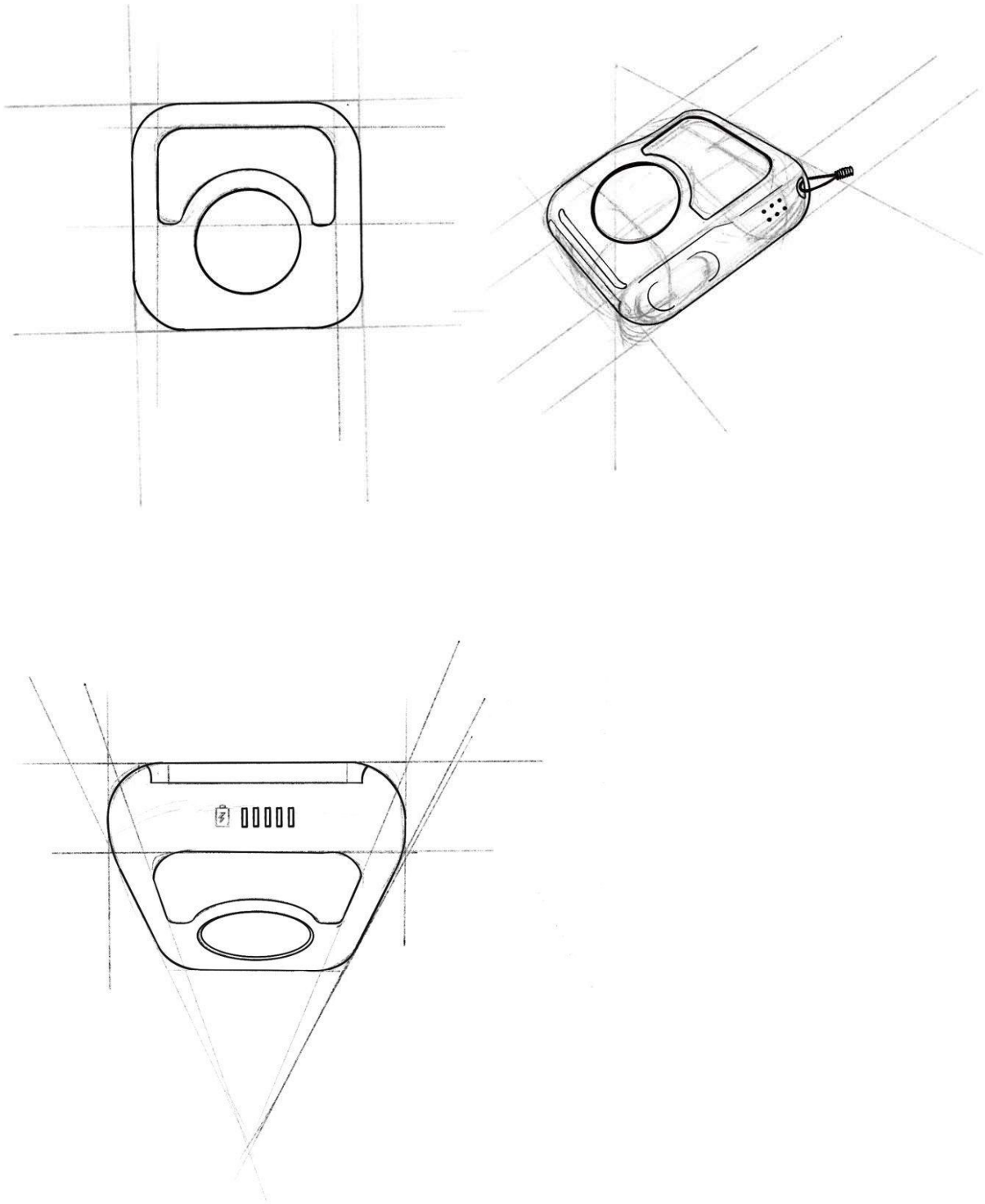
Signature of Inventor with date

Signature of Inventor with date

Signature of Inventor with date

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Annexure- I
Diagrams of MemorEase A Pocket-Sized Audio Reminder Device



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