

iStopTremors.

— Bringing stability even in tremors —

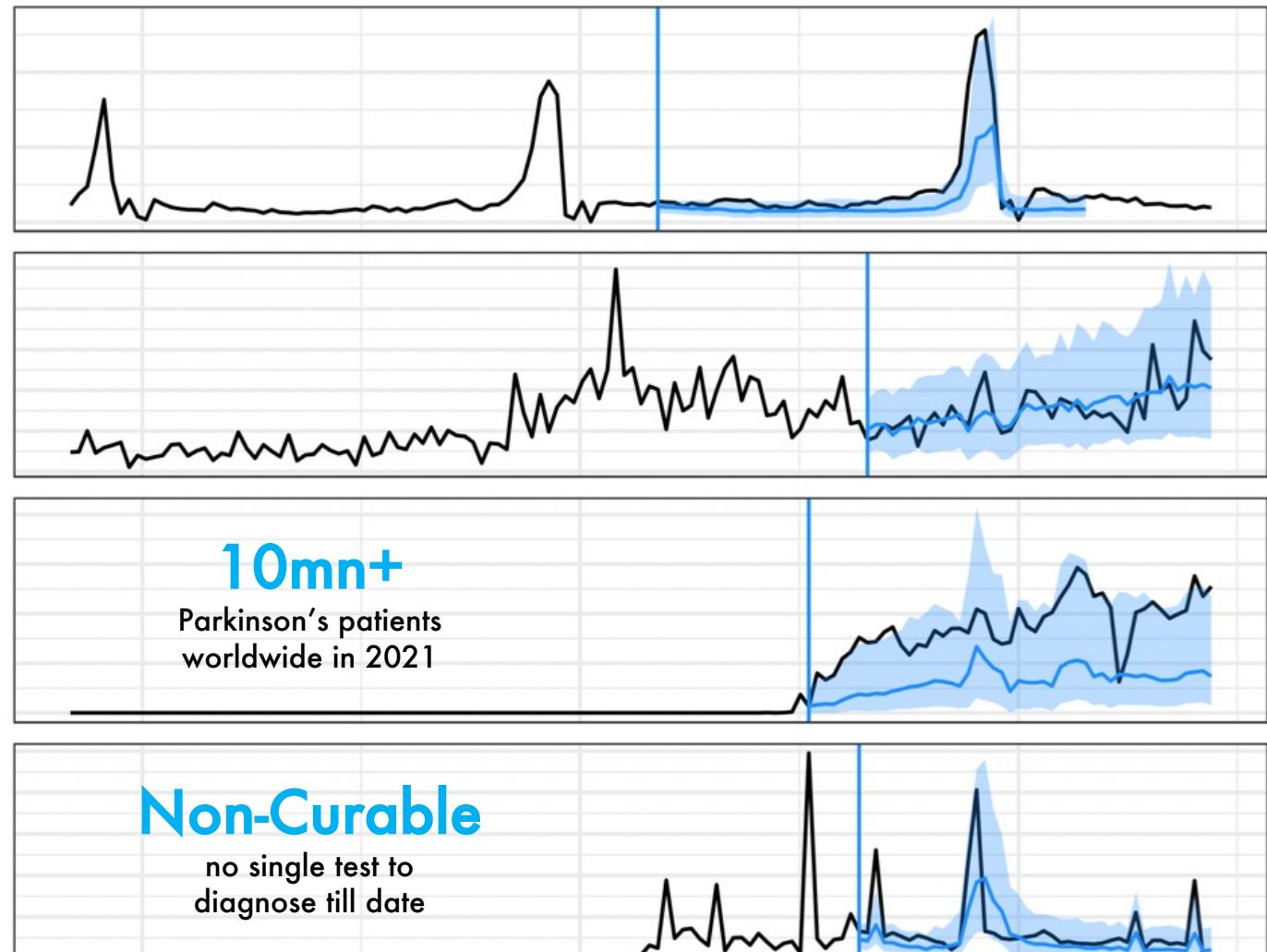
Agenda

- **Vision** | Gaining perspective into the mission
- **Problem Statement** | Exploring the problem from a different lens; current market landscape evaluated
- **Market Landscape** | Going deeper into the market analysis with customer persona & highlighting value proposition
- **Go-To-Market Strategy** | Assessing the developments over the years for the organization with business model canvas
- **Design & USPs** | Presenting the draft design with proposed USPs for the solution
- **Unit Economics** | Evaluating the innate potential in the idea with unit analysis and diving deeper into the finance
- **Summary** | Introducing the secret ingredient and laying out future vision over the next 10 years

Future. Vision?

"For all who suffer from hand tremors and wish to get back your normal hand functioning back, but cannot because of the constantly trembling hands, in order to become reliant, my offering iStopTremors can uniquely deliver this stability, developed with the purpose of refreshing your potential and boosting your innate confidence yet again!"

With millions affected worldwide, and multiple personally close cases, a solution that could enable their hands to function properly outside would have a huge social, physical and mental impact.



<https://arxiv.org/pdf/1711.11053.pdf>

Problem Statement

Hand Tremors affect the lifestyle of the person affected and the people around, increasing frustration and helplessness of the victim

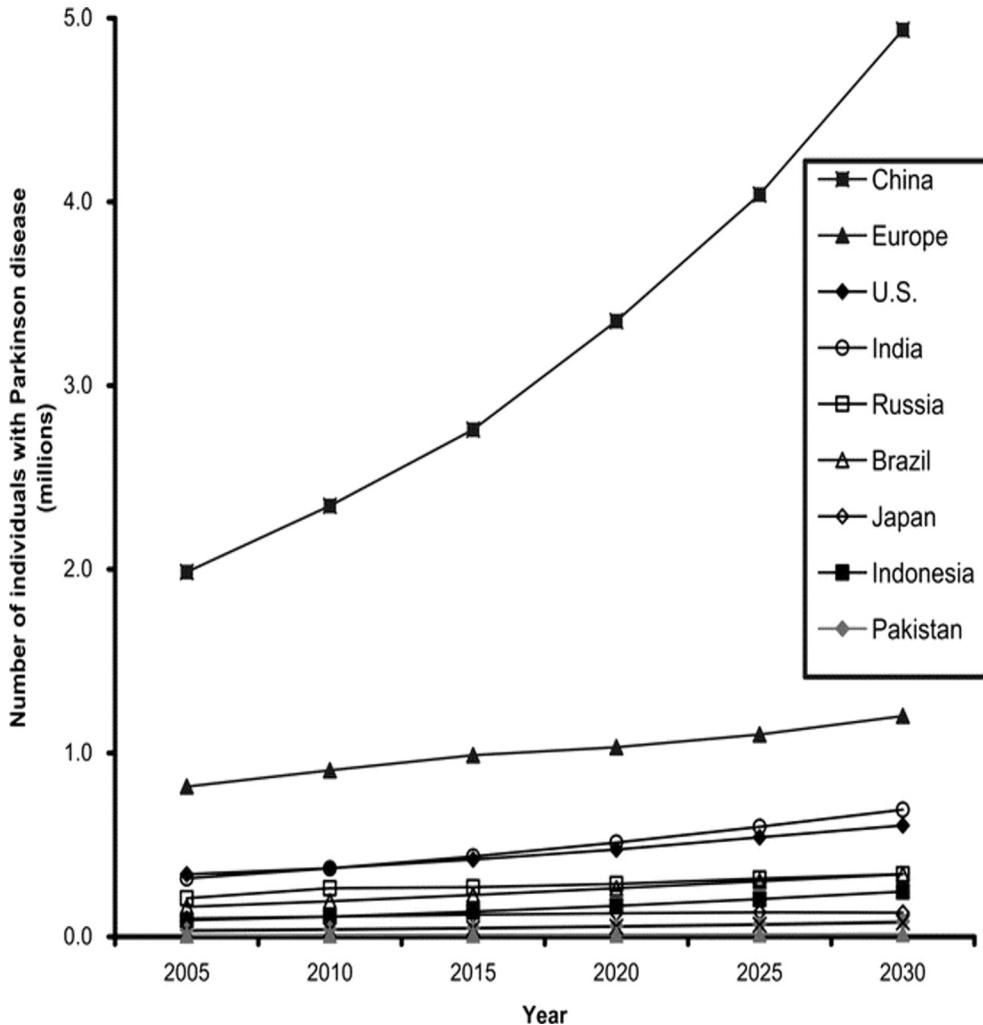


Millions of people affected by Parkinson's & other neurological diseases suffer constant, uncontrollable tremors making it impossible to carry out daily chores

The growth in the number of affected patients has been rising at a drastic pace around the globe, with India predicted to have 700k+ by 2030



Current Market Landscape



Existing solutions fail to assess non-US demographics for implementation of their products, especially on the cost front. Also, there are specific use-cases being handled, but not a viable, general implementation. Specific implementations include ease of writing, grabbing, writing, etc.

10mn+
Parkinson's patients worldwide in 2021
patients older than 65 years of age are affected by tremors

\$100,000+
cost for Parkinson's related surgery per patient

1.5x more
likely are men to have Parkinson's than women

Team Introduction



**CEO, Rachit Jain (IITD) | CTO, Mr. Unknown | COO, Ms. Unknown
Advisor, Mr. Unknown | Sales & Marketing Head, Ms. Unknown**

Market Landscape

What is the market we are looking at? What would be our strategy to go about addressing these problems...

Customer Persona

- **Age:** 75+ Parkinson's affected patient
- **Goal 1:** Wants to drink water and eat without spilling
- **Goal 2:** Wants to become self-reliant as he was a decade ago!
- **Frustration:** The draining confidence is clearly visible from his eyes.



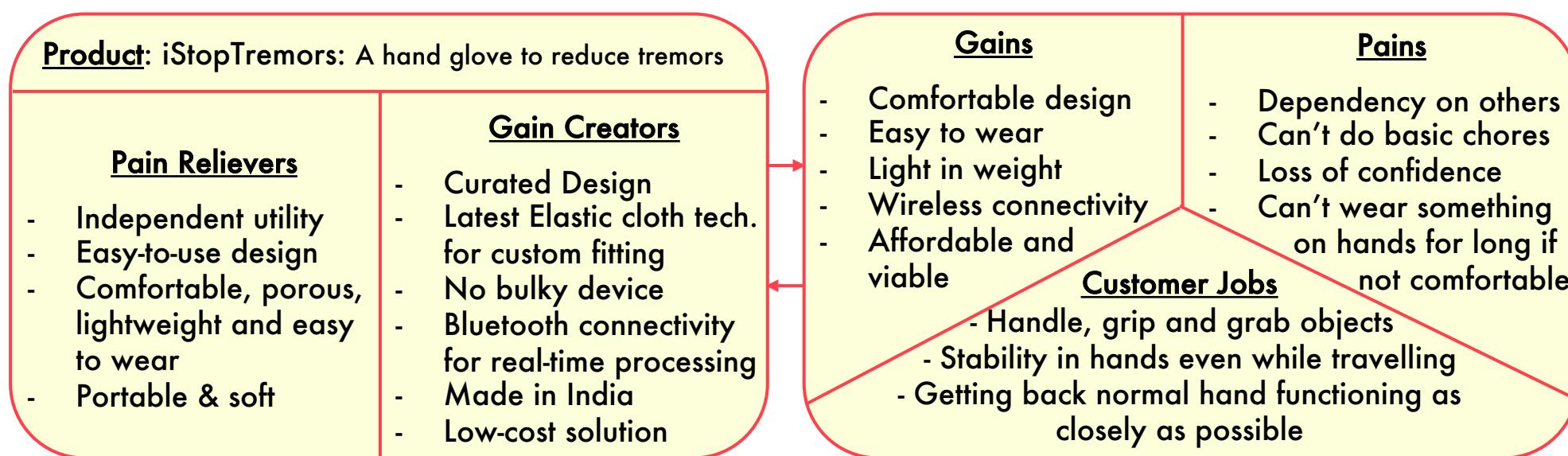
<https://www.youtube.com/watch?v=JTPBS2L0lPk&t=12s>

- **Age:** 65+ Old Woman
- **Goal 1:** Wants to go out and eat snack, talk to people, and act with 'normal' hands
- **Goal 2:** Wants to continue her schedule without a walking stick & the danger to fall
- **Frustration:** Her hands don't support her gripping power and trembling jaw exposes the irregular behaviour due to tremors



Value Proposition

For Parkinson affected patients & for people suffering from hand tremors due to ageing effects



Go-To-Market Strategy

Initial Phase

< 12 months

- Utilizing manufacturing facilities of vendors & institutes
- Creating a strong team to delegate responsibilities
- Developing MVP and initiate customer feedback loop
- Focus on limited, but strong collaborations
- Acquiring new customers on priority and iterating on product
- Website Development for further traction amongst youth

Expansion Phase

12-36 months

- Looking out for grants with a solid customer base search
- Finalize the first launchable product and gain traction
- Marketing customer journeys and product impact on customers
- Collaborations with Hospitals and research groups
- Regular feedback drives with personal customer-interaction

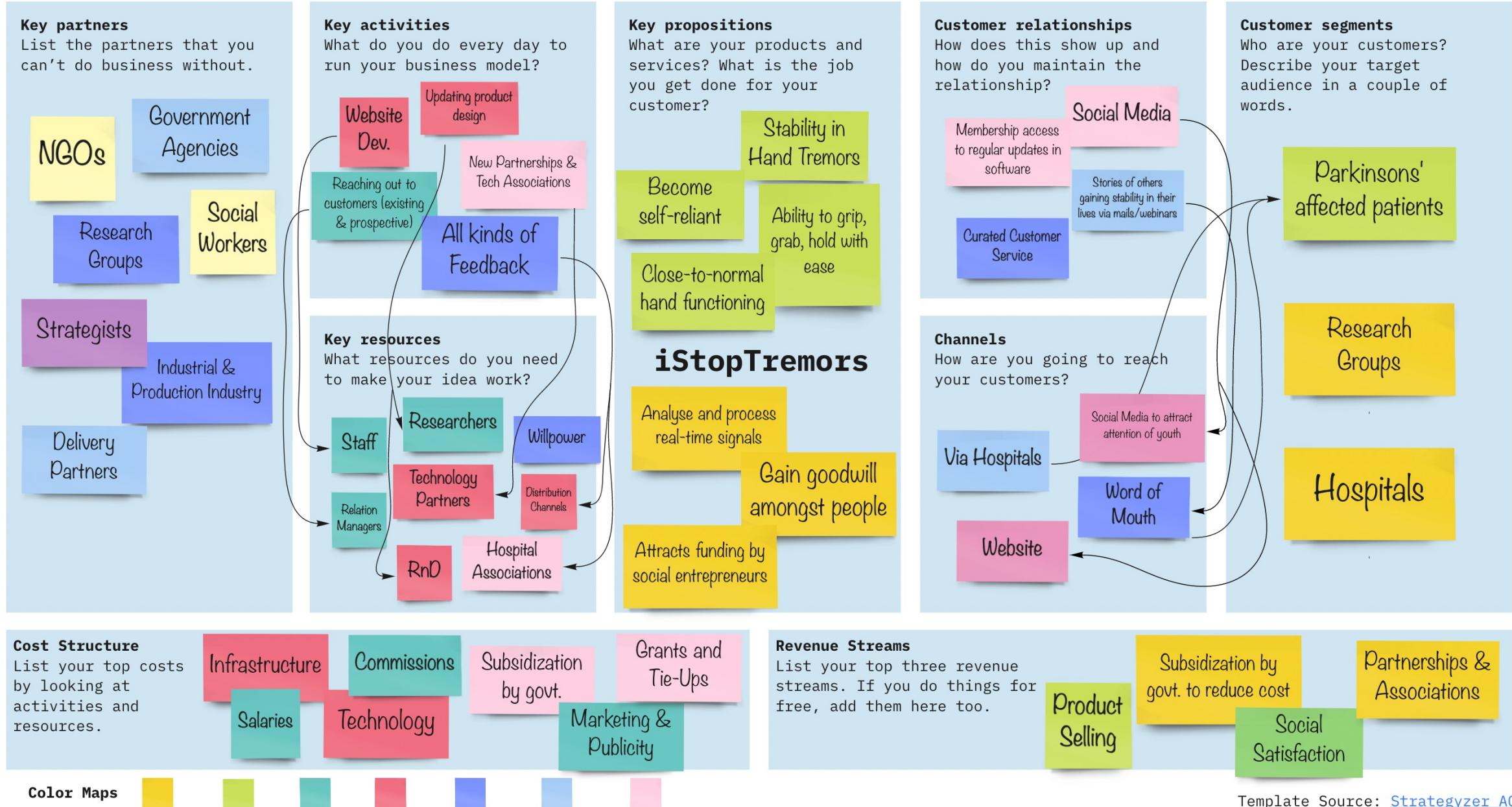
Maturity Phase

> 36 months

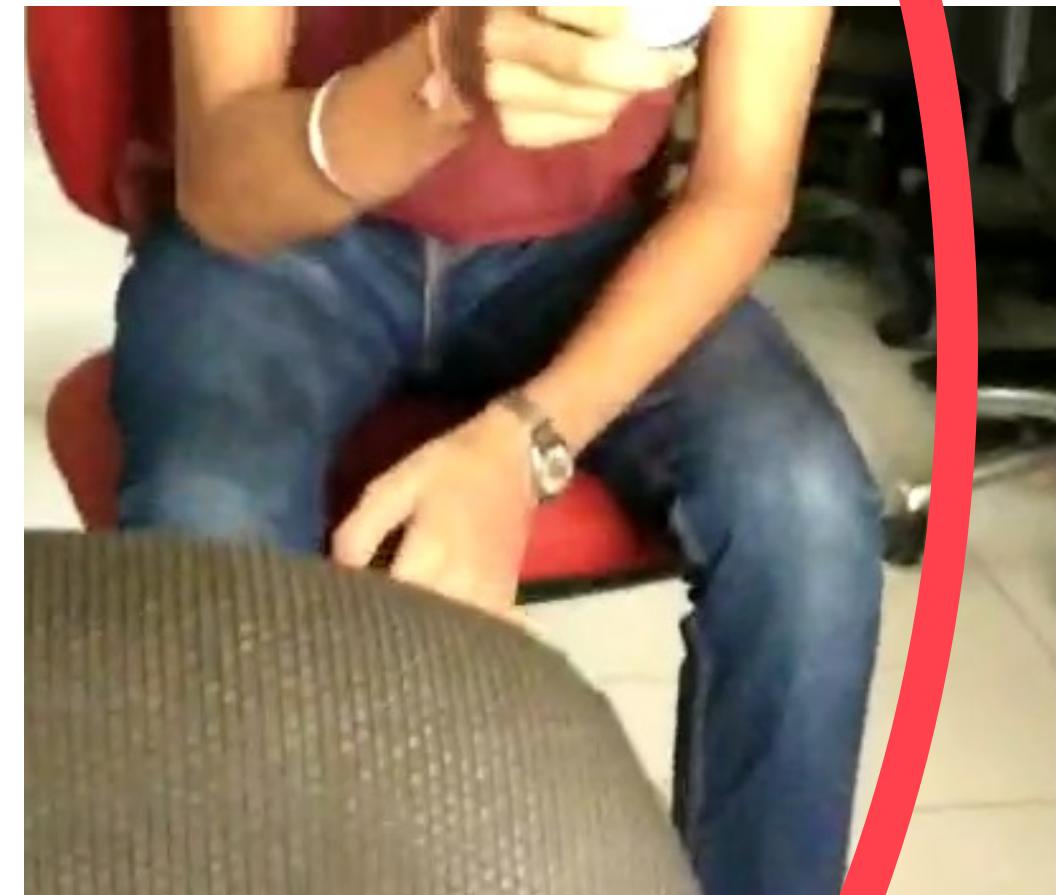
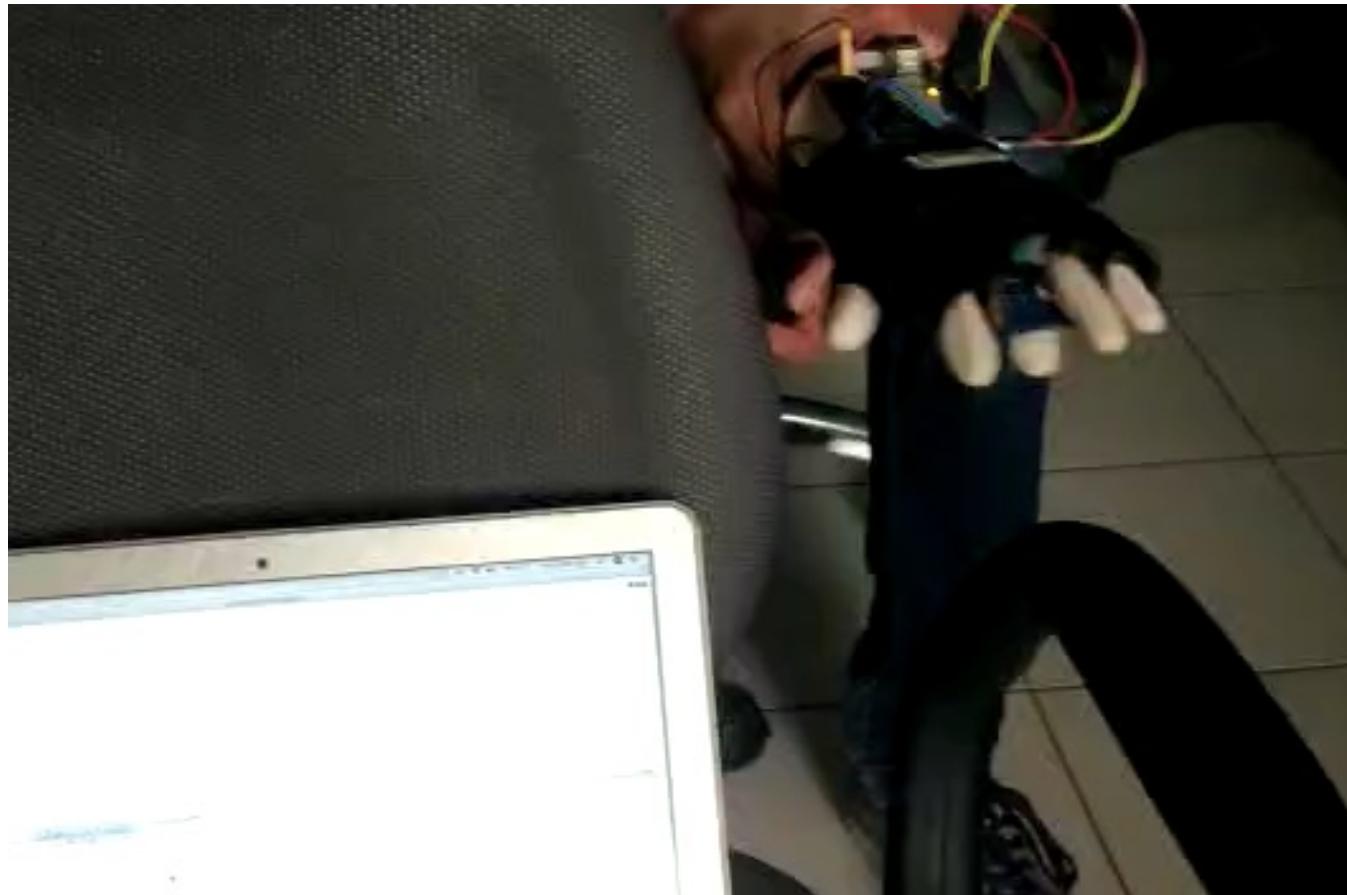
- Retaining existing customer base and developing a strong relation
- Generating investments and grants under social impact work
- Boosting market penetration and starting globalization of product
- Strengthening current technology stack and teams
- Relevant advertisements and collaborating with NGUs, hospitals and government
- Automation with Industry 4.0 proposed

The Business Model Canvas

Rachit Jain | 2018ME10032



Prototyping



Draft Design & Proposed USPs

Along with providing the **best-in-class tremor stabilising utility**, the offering would be curated for each customer's hands, with utmost care to provide:

Flexibility

Comfort to wear

Ease of Use and Ergonomic

Keeping the **vital technology compact**, the product does not appear bulky and is easily portable. It would have an edge over its competitors due to the use of **targeted yet general** use-case being solved, **customer-curated** product development, **collaborations** with hospitals and being **lesser on cost**, without compromising on the **quality**!



Finance Under-the-Hood

What are the USPs of my product and does the maths work out...

Unit Economics

| |
|------------------------------|
| Fixed Costs |
| Office Rent (Online/Offline) |
| Workplace Rent |
| Salaries |
| Depreciation |
| Manufacturing Costs |
| Technology Costs |
| Infrastructure |
| Electricity |
| Website Hosting Costs |
| Factory Overheads |
| Raw Material Costs (some) |
| insurance |
| RnD Costs |
| Commercialising Costs |
| Variable Costs |
| Raw Material Costs (most) |
| Delivery Channel Costs |
| Warehouse Cost |
| Commission Charges |
| Advertising Costs |
| Maintenance Cost |
| Wages/Labour Cost |
| Packaging Cost |
| Corporate Overhead |

Back-of-the-Envelope Calculation gives a rough estimate of the cost of the raw materials for one unit of value, which in our case is a **product**. Since there would be a huge amount of **F&V costs** that would get added to this, and with the **economics of large quantities** coming into the picture, a good approximation for the final cost can be 1.75 times current value which comes to about **Rs. 9k**.

| Fabric & Fabrication | | | |
|---------------------------------------|-------|----------|-----------|
| | Price | Quantity | Net Price |
| Cotton Cloth and Fabrication Material | 1000 | 0.18 | 180 |
| | | | 180 |

| Technology | | | |
|------------------------------------|-------|----------|-----------|
| | Price | Quantity | Net Price |
| Accelerometers | 200 | 3 | 600 |
| Gyroscope | 1200 | 1 | 1200 |
| Arduino UNO (Wireless + Bluetooth) | 3000 | 1 | 3000 |
| | | | 4800 |

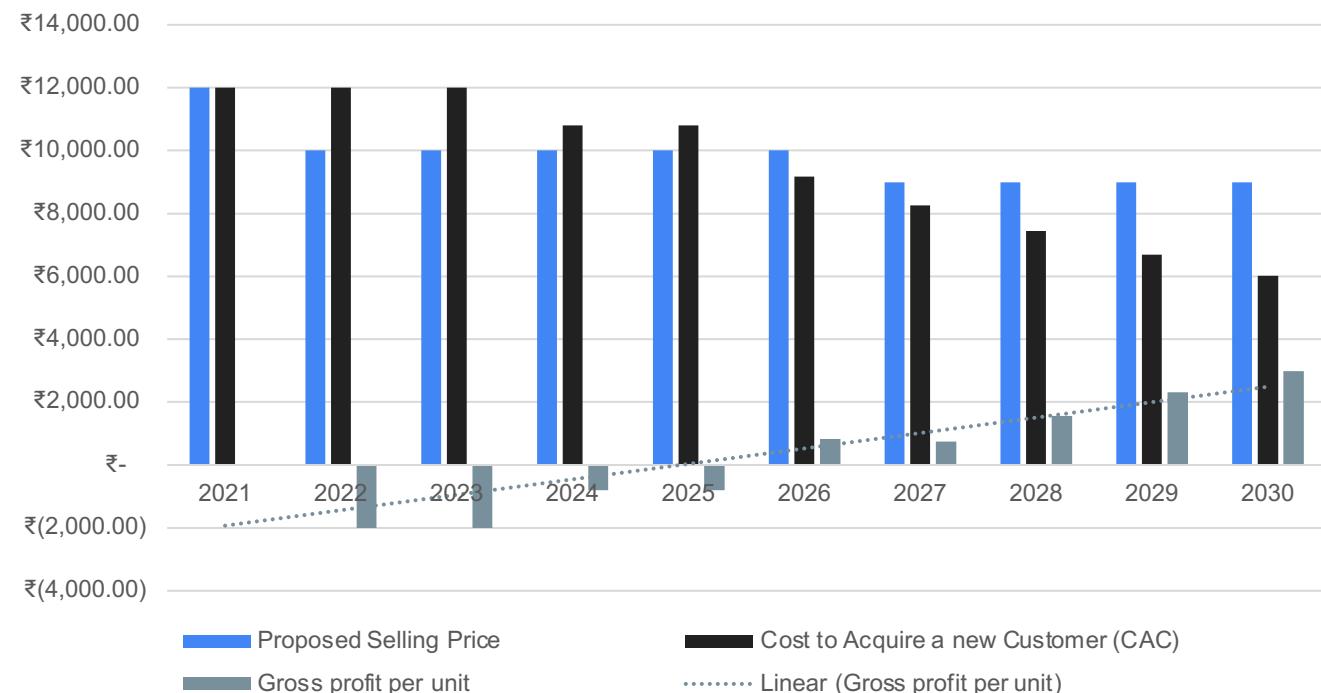
| Electrical Components | | | |
|-----------------------|-------|----------|-----------|
| | Price | Quantity | Net Price |
| Wires | 1.67 | 15 | 25 |
| Power Source | 20 | 1 | 20 |
| Display | 150 | 1 | 150 |
| | | | 195 |

| | |
|-----------------------------|------|
| Total Cost of Raw Materials | 5175 |
|-----------------------------|------|

Unit Economics

- Unit of Value: Product
- Revenue & Cost per Unit compared
- Gross Profit turns +ve beyond 2026
- New to market effect in the initial years
- Increasing trendline for gross profit per unit
- Assuming only 1% market penetration for current landscape, TAM comes out to be:
 $\# \text{ of Customers} = 1\% * 12mn = 120,000$
 $\text{Avg. SP in market} = 1\% * 12mn = \text{Rs. } 13,000$
 (averaging the effects of inflation and taking lowest market cost of any current product)
 $\Rightarrow \text{TAM} = 120k * \text{Rs. } 13k = \text{Rs. } 1.56bn$

Unit Economics for Break-Even Point



Approximate units to be sold each year shown to increase at a particular rate, based on probable grants and investments timeline

| Growth rate | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| How fast will your unit sales grow per year? | - | 5000% | 50% | 50% | 80% | 100% | 100% | 80% | 100% | 80% |
| Units sold: | 1 | 51 | 77 | 115 | 207 | 413 | 826 | 1,487 | 2,974 | 5,354 |
| Percentage of the TAM: | 0.00% | 0.05% | 0.06% | 0.09% | 0.15% | 0.28% | 0.52% | 0.87% | 1.65% | 2.82% |

Unit Economics

With the approximate per unit analysis completed, this is revenue and cost track over 10 years of production.

| P&L | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---------------|-------------|-----------------|-----------------|----------------|-----------------|----------------|----------------|------------------|------------------|------------------|
| Revenues: | ₹ 12,000.00 | ₹ 5,10,000.00 | ₹ 7,65,000.00 | ₹ 11,47,500.00 | ₹ 20,65,500.00 | ₹ 41,31,000.00 | ₹ 74,35,800.00 | ₹ 1,33,84,440.00 | ₹ 2,67,68,880.00 | ₹ 4,81,83,984.00 |
| Cost: | ₹ 12,000.00 | ₹ 6,12,000.00 | ₹ 9,18,000.00 | ₹ 12,39,300.00 | ₹ 22,30,740.00 | ₹ 37,92,258.00 | ₹ 68,26,064.40 | ₹ 1,10,58,224.33 | ₹ 1,99,04,803.79 | ₹ 3,22,45,782.14 |
| Gross Profit: | ₹ - | ₹ (1,02,000.00) | ₹ (1,53,000.00) | ₹ (91,800.00) | ₹ (1,65,240.00) | ₹ 3,38,742.00 | ₹ 6,09,735.60 | ₹ 23,26,215.67 | ₹ 68,64,076.21 | ₹ 1,59,38,201.86 |

- First 5 years going into losses
- Break-even point occurs in 2026
- Investments & grants come in 2026 and 2029, pushing revenue

LTV/CAC Calculations

- Assuming 0.5% market penetration in India, we get a Rs. 38.5mn market which is 2-3% of the TAM till 2030.
- Sustainable Business for $\frac{LTV}{CAC} = 4.32 > 3.0$

- More than 2% of global market penetrated over 10 years of functioning
- Initial years go into marketing and acquiring customers, showing value addition

| LTV/CAC Calculation (in steady state) | | |
|--|-------------|---|
| LTV = Avg. Purchase Value * Avg. Purchase Frequency * Avg. Customer Lifespan | | |
| LTV | ₹ 26,000.00 | Accounts for quarterly updates & subscription |
| CAC | ₹ 6,023.00 | As on year 2030 |
| LTV/CAC | 4.32 | Sustainable Business  |
| LTV consists of the cost of the product offering for both hands, along with a quarterly subscription of Rs. 100 for keeping the glove and the customer up to date with the latest happenings | | |

Summary

Highlighting essential
use-cases and growth timeline...

Superpower

Existing solutions with their specific implementation for easing a particular task for the customer have been successful but a general implementation like ours would make most of them redundant.*

Flexibility

Comfort to wear

Ease of Use and Ergonomic

Secret: Gyroscope

Single gyroscope; less space; effective; direct installation; robustness

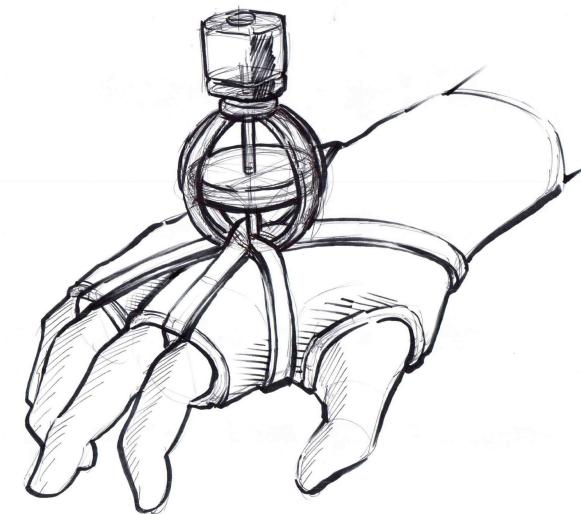
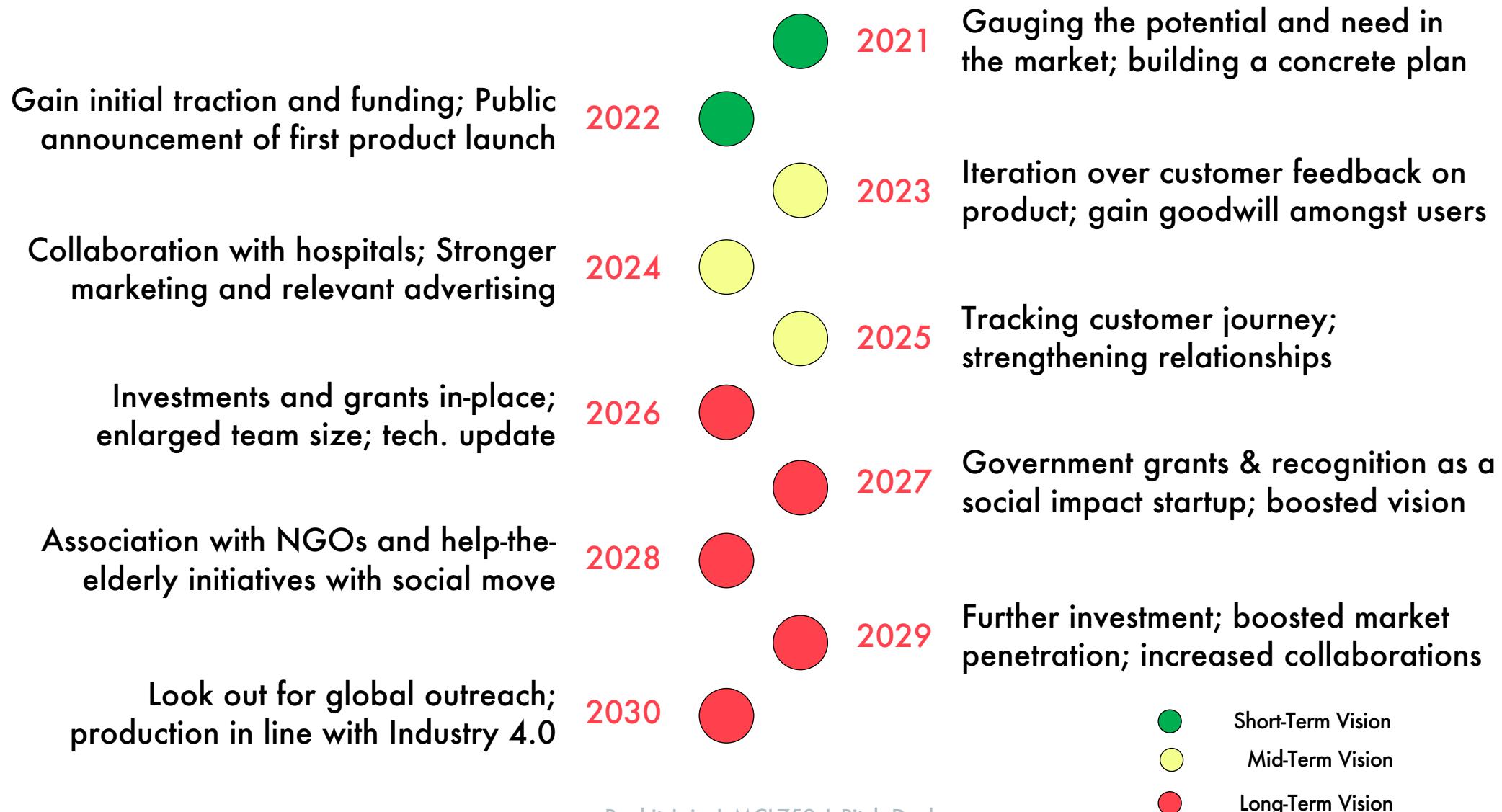


Fig: Gyroscope strapped over hand [4]

In addition, signal processing and distinction between voluntary and involuntary signals via state-of-the-art machine learning algorithms and utilization of efficient manufacturing processes to reduce cost shall have a multiplying effect on the feasibility, robustness and applicability of our proposed solution.

Timeline of Growth



Thank You!

Resources

- [1] https://en.wikipedia.org/wiki/Parkinson's_disease
- [2] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6311367/>
- [3] [Google Image of Hand Design](#)
- [4] <https://gyrogear.co>
- [5] <https://www.microsoft.com/en-us/research/project/project-emma/>
- [6] <https://www.liftware.com>
- [7] https://www.crunchbase.com/organization/steadewear/company_financials
- [8] <https://steadewear.com/pages/team-1>
- [9] <https://www.readi-stadi.com>

QnA

Open to any question...