

Make The World Your Playground!





Smart Workout Sleeves

Team Arcis, DSCE Bangalore



A Few Numbers

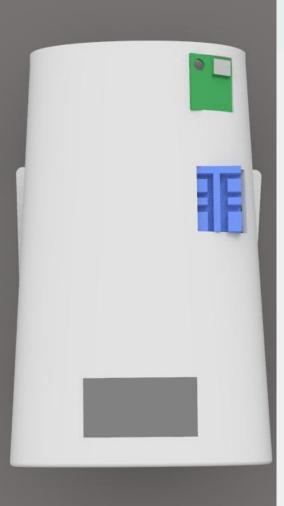
- 53% of Indians lack the discipline to go to the Gym.
- Upto 50% of people in cities are obese.
- Fitness Trackers can be very expensive (\$300 and up).
- They often do not do automatic tracking for exercises such as weight training.
- It has been shown that consistent tracking can boost general health by motivating users to reach daily goals.



Why A Sleeve?

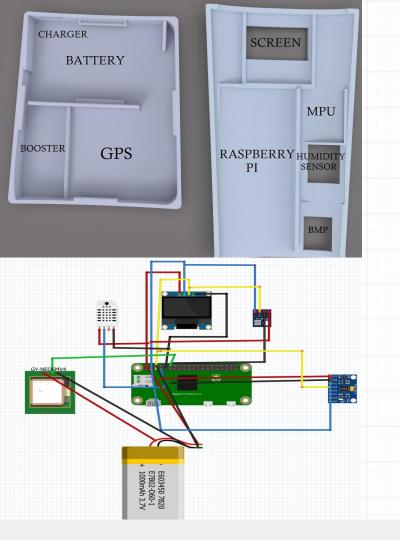
- Sleeves provide protection from the sun, improve blood circulation, have been proven to make injuries heal faster and regulate body temperature.
- In addition to all these passive benefits, sleeves have greater surface area and more sensory input can be taken, which results in greater accuracy.
- Combining two items into one.
- Our sleeve has all the features of a normal smartwatch, plus others that devices don't have.

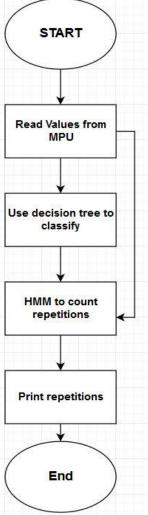
Pedometer Sleep Tracking Calories burnt Distance tracking Sports tracking



Feature Guide

Name/Features	Smart Gauntlet Sleeve	Apple Watch	Fitbit Versa	MI Band 3
Weight exercise tracking	/	×	/	×
Inbuilt GPS	/	/	×	X
Adaptive training	/	/	/	×
Efficiency calculation	/	×	×	×
Support for Niche sports	/	×	/	×
Price	₹ 2500	₹ 40,000	₹ 24,000	₹ 2,000





Technical

- Hardware consists of GPS, Battery,
 DHT22, MPU6050, Booster, Charger,
 BMP180 and Battery.
- We use a combination of IoT and
 Machine learning to track exercises that
 can normally not be tracked.
- ML uses a combination of a decision tree and HMM.

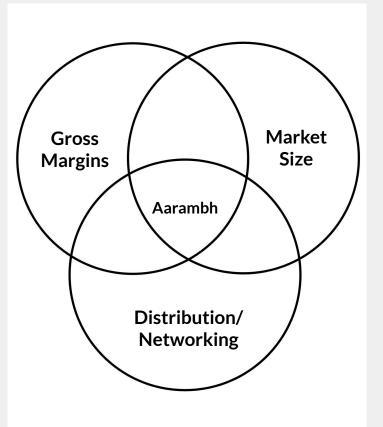
Market Potential



- The Indian wearables market has recorde a steady double digit growth for wearables in year 2019-20.
- Over 90% of the wearables market is dominated by wrist based devices.
- The basic fitness tracker scene dominated by Xiaomi has shrunk, indicating that users want more 'bang for their buck'.
- The Indian wearables market is projected to grow upto 9 lakh units in the upcoming quarter.



Business Model



- Initial plan to build base product and later branch out to more variants.
- Initial tie ups with eminent sports based institutions such as National Institute of Sports, Patiala and the IOC.
- Community features of the smart sleeve to enable a new form of social media - where users share their sports based exploits. This will enable greater visibility.



Pricing Metrics



- The cost of materials does not exceed ₹ 1800 with standard materials, the BOM is likely to be under ₹1300 by having materials in bulk.
- To use the internet aggressively and pitch the product as a complete ecosystem of fitness. Users sign up to have access to a community of health conscious individuals, who strive to better themselves and others.
- Value added extras like custom designs on the sleeve plate,
 additional software modules for every exercise and

eventually, a multi-tier product.



Cost Breakdown

Criterion	Off-The-Shelf	Bulk	Component of final price
Raw Materials	₹ 1800 + ₹ 200	₹1300 + ₹150	₹1450
Manufacturing	(Rpi+Sensors+Battery+ Op Cost)		
Advertising & Distribution	₹ 200	₹150	₹150
Distribution	(10% of costs)	(Lesser due to publicity)	
Taxes	₹ 324	₹ 234	₹234
	(18% GST)	(18% GST)	

- As a 'Make In India' company, we do not need to pay 28% taxes, as we do not have to pay IGST.
- Total Cost is ₹1,884. The sticker price is ₹2,500. This translates to a profit margin of 33%



The Road Ahead



- Funding and access to sub millimeter fabrication facilities will allow us to go really thin, light and energy efficient.
- Yoga based exercises such as Surya Namaskara can be tracked with further research.
- A community of fitness enthusiasts can be created that follow and motivate each other to exercise more.
- Venturing into allied markets such as rehabilitation of injured persons, and prosthetics development.

