

VASAVI COLLEGE OF ENGINEERING

SMART COMB



TEAM CODE:E26-03

TEAM DETAILS:

1) RAVALI GOLLENA:

ravaligollena@gmail.com

mobile no:9676685123

2) N.ASHWINI REDDY:

ashwininimmala972@gmail.com

mobile no:8465943941

3) P.SHAILENDER KUMAR

shailender2596@gmail.com

mobile no:8897617276

INTRODUCTION:

This comb keeps track of hair fall on daily basis and shows statistics of hair fall in android application.

PROBLEM WE ARE SOLVING:

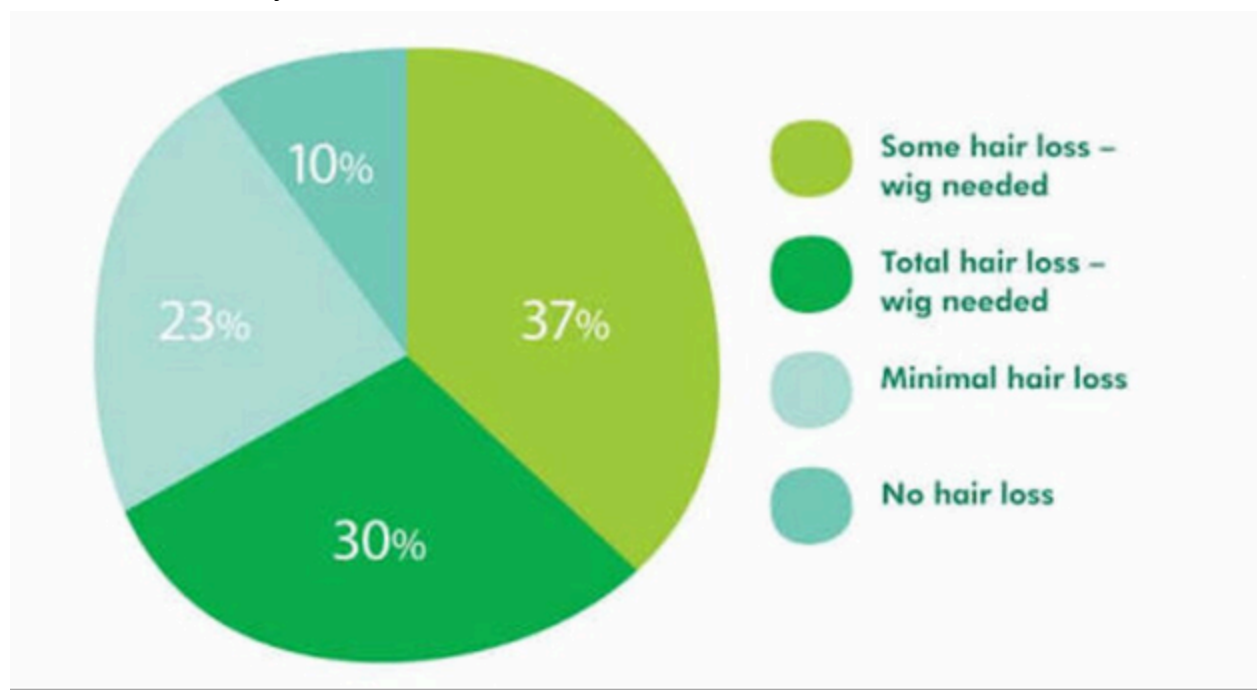
People are unaware of hair fall and when they use some new hair products they are not able to make difference before and after using product.

SOLUTION:

Protect your hair smartly

STATISTICS:

- Approximately we have 100 thousands of Hair strands. Every day we lose around 50-100 hair strands. The problem is by the time people recognize that they are having a serious hair fall, they are already the victims of it.
- Women's taking hair treatments increased from 33.2% in 2012 to 40.1% in 2014.
- About 20 lakhs of people are interested in Hair Care Products
- According to GlaxoSmithKline, one in 7 men are more likely to lose hair based on hereditary.



- About 3,58,109 surgical patients and 6,97,372 non surgical patients are tested worldwide in 2014
- 40% of hair loss sufferers are female . By the time they reach age 50, roughly half of all women will be dealing with pattern hair loss.

- Baldness was linked to a 70% higher risk of developing heart disease.

SURVEY LINKS:

- http://www.americanhairloss.org/women_hair_loss/
- <http://www.statista.com/statistics/302789/hair-styling-products-for-men-usage-frequency-in-the-uk/>
- <http://www.euromonitor.com/hair-care-in-india/report>
- <https://www.equitymaster.com/detail.asp?date=4/12/2007&story=1&title=The-evolving-Indian-hair-care-industry>

PEOPLE WITH WHOM WE DISCUSSED THIS PROBLEM:

Person Name	Designation	Feedback
Dr.Uday Kiran	Hair Specialist	They are many people who don't recognize the hairfall in the early stages and come for solution.
G.Divya sree (Student)	Student	She is interested to know about their hair loss.
Mrs.Jayanthi	House Wife	It would be better if the device can provide some other details of hairfall.
Bhashya	Student	She could roughly estimate her hair loss and not interested to buy.
Mr.Mahan	Manager	Sir is very excited with this idea,he have huge collection of combs and he wants to add one more to that.
Mr.Narsaiah putta	Lecturer	Sir accepted this concept,but he want additional features to it.

Mrs.Shilpa rajuri	Assistant Professor	She suggested that comb should be flexible to all types of users.
Ravi	Student	He is scared that comb might effect his hair

TARGET AUDIENCE:

- People unaware of hair loss
- People of age group 18 and above.

EXISTING SOLUTIONS:

- The pull test
- The pluck test
- Scalp biopsy
- Iphone dermatoscope

How does your solution compare with existing solutions/competition on cost?

- Existing solution is not that accurate, only for that instance strength of hair is checked.
- Our solution give hair fall statistics on daily basis so.It is cost effective,Instead of spending more money for one test,One time investment for comb can solve this drawback.

How does your solution compare with existing solutions on size?

- As whole mechanism is integrated to a comb.It is easy is use, doesnt effect much on life style.
- Length of comb is of regular size(9.84'*3.2')

How does your solution compare with existing solutions on choice of technology?

- Hair fall estimation is made by using load scale,which provides approximately 60-70% of accuracy.

FEATURES OF SOLUTION:

- Take the count of lost hair daily.
- Calculating the statistics of hair loss on daily basis.
- Therefore guiding you on that statistics through app with notifications.

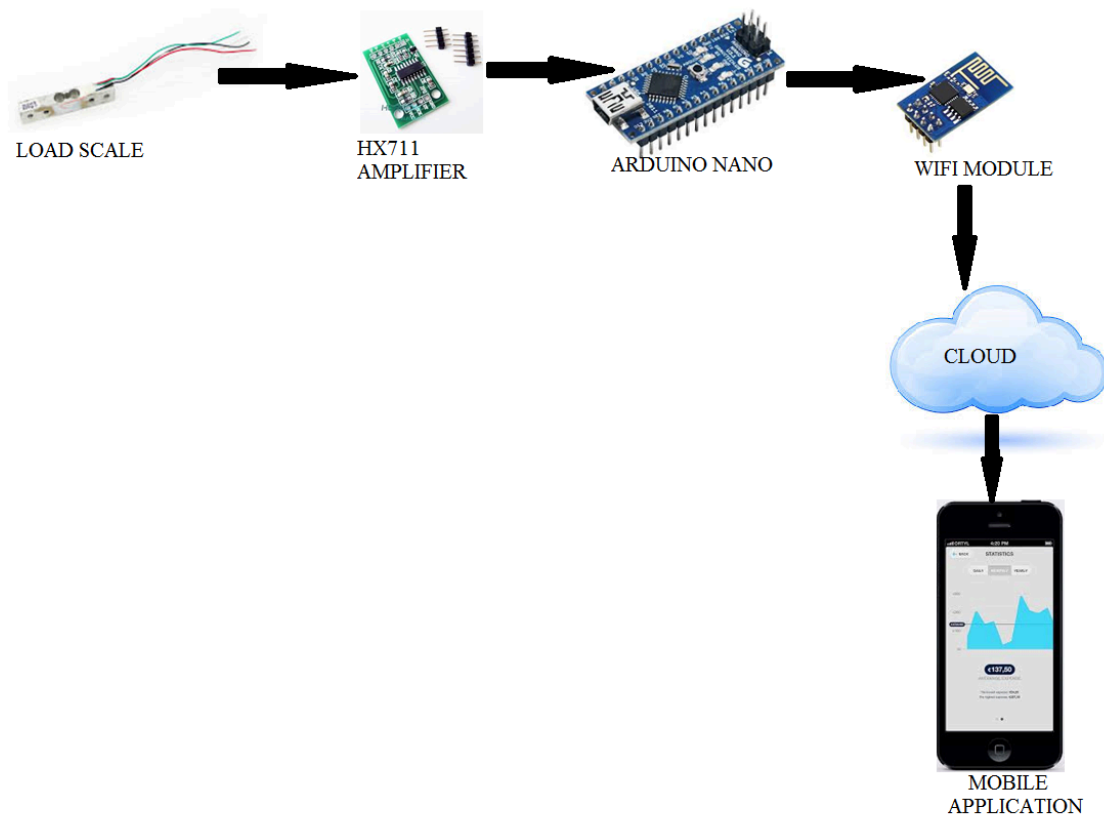
USER SURVEY

- 16 out of 40 preferred the product.
- Some people feel tensed to see their hair fall statistics
- They are able to guess rough estimation of hair fall.
- Based on demand people prefer to use the product.
- Cost Factor

TECHNOLOGIES USED:

- IOT:Arduino and sensors
- Android:For showing statistics of hair fall and notifying them.

TECHNOLOGY ARCHITECTURE:



HARDWARE/SOFTWARE REQUIREMENTS:

- Android application.
- Arduino
- Load Scale of precision 0.01 gms
- Wi Fi module
- Battery

ESTIMATED COST:

- Rs.1300-1500/-

STRATEGY FOR FIRST 10 CUSTOMERS:

- Device consists of a comb which is regularly used by customer.
- Providing some discount on product when purchased in bulk.
- Additional warranty and services are provided for first 10 customers.