



Xtencion

A smarter smartwatch

The Team - NONAME



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Connected
Wearables
↗ 335mn

SmartWatch

52%

The Problems with Smart Watches



1

Difficult to navigate
interface



2

Very - Short Battery Life



3

Missing Distinct Features
compared to SmartPhones



The Validation - User Interviews

“My smartwatch is just like my phone, why did I waste money for something that I already have. I expected my smartwatch to have extra features in it”

- Mr. Rajesh, Self-Employed Entrepreneur

“It’s difficult to navigate through the menu on such a small screen. I would opt for a smart watch with buttons on it for easier use.”

- Ms. Lalitha, Fitness Freak



The Question

How can we make smartwatches a better tool and a better user experience for the end customer?



The Solution

We have built Xtencion, an intelligent wrist wear that has unparalleled functionality, improves the users' productivity and efficiency while at the same time does not boggle the user with complicated user interfaces.



How do we do it?

The Algorithm

It is a signal processing algorithm that uses a form of machine learning to detect the hand gestures using a predetermined kernel. We use this kernel by performing convolution of itself and the signal from the sharp rangefinder sensor.

Convolution: Trying every possible match

-1	-1	-1	-1	-1	-1	-1	-1	-1
-1	1	-1	-1	-1	-1	-1	1	-1
-1	-1	1	-1	-1	-1	1	-1	-1
-1	-1	-1	1	-1	1	-1	-1	-1
-1	-1	-1	-1	1	-1	-1	-1	-1
-1	-1	-1	1	-1	1	-1	-1	-1
-1	-1	1	-1	-1	-1	1	-1	-1
-1	1	-1	-1	-1	-1	-1	1	-1
-1	-1	-1	-1	-1	-1	-1	-1	-1



1	-1	-1
-1	1	-1
-1	-1	1



0.77	-0.11	0.11	0.33	0.55	-0.11	0.33
-0.11	1.00	-0.11	0.33	-0.11	0.11	-0.11
0.11	-0.11	1.00	-0.33	0.11	-0.11	0.55
0.33	0.33	-0.33	0.55	-0.33	0.33	0.33
0.55	-0.11	0.11	-0.33	1.00	-0.11	0.11
-0.11	0.11	-0.11	0.33	-0.11	1.00	-0.11
0.33	-0.11	0.55	0.33	0.11	-0.11	0.77

Design

Battery Links

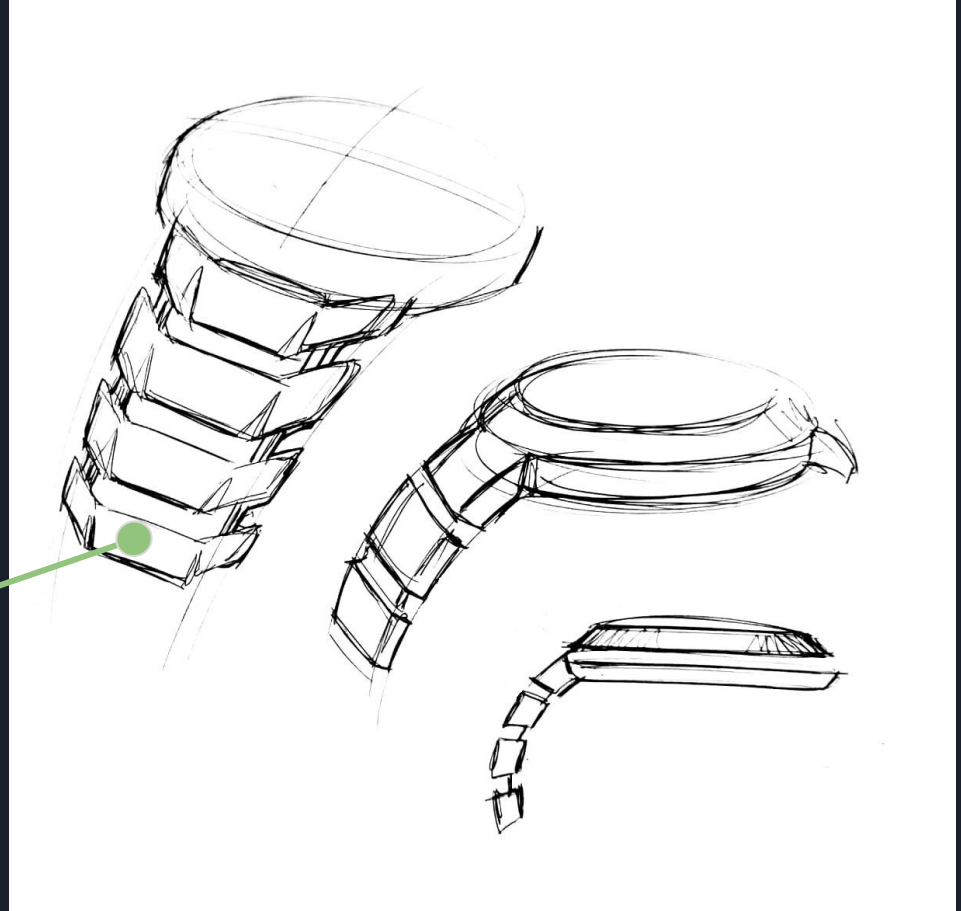


Image Credit: Rohit Kartha



The 3X Design Features

XTENDED USABILITY



It is gesture controlled, so no more tapping the wrong thing and wasting time going back and attempting to tap again.

XTENDED BATTERY



It will reduce battery usage by nearly 10% by removing the touchscreen. The device will, additionally, use low power sensors.

XTENDED FUNCTIONALITY



The gestures are location based and time based so the user doesn't have to remember different patterns of gestures



The 3P Design Specifications

POWER

6 Days

PRECISION

Range
4cm - 30cm

Accuracy
1mm

PROTOCOL



Hypertext
Transfer
Protocol



Bluetooth
4.0

* The price represent the design cost and not the cost of the product itself. If you were to design on your own it would cost you the above mentioned price.



Thank You

Ask me anything!

