

# Purpose: A Modular Wearable

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# Wearables

According to Wikipedia: “Wearable technologies are smart electronic devices (electronic devices with micro-controllers) that can be worn on the body as implants or accessories”

# Wearables

Today they are widely marketed to consumers as *accessories*

- Fashion & Social Status
- Exercise & Wellness
- Convenience Factor

# Wearables

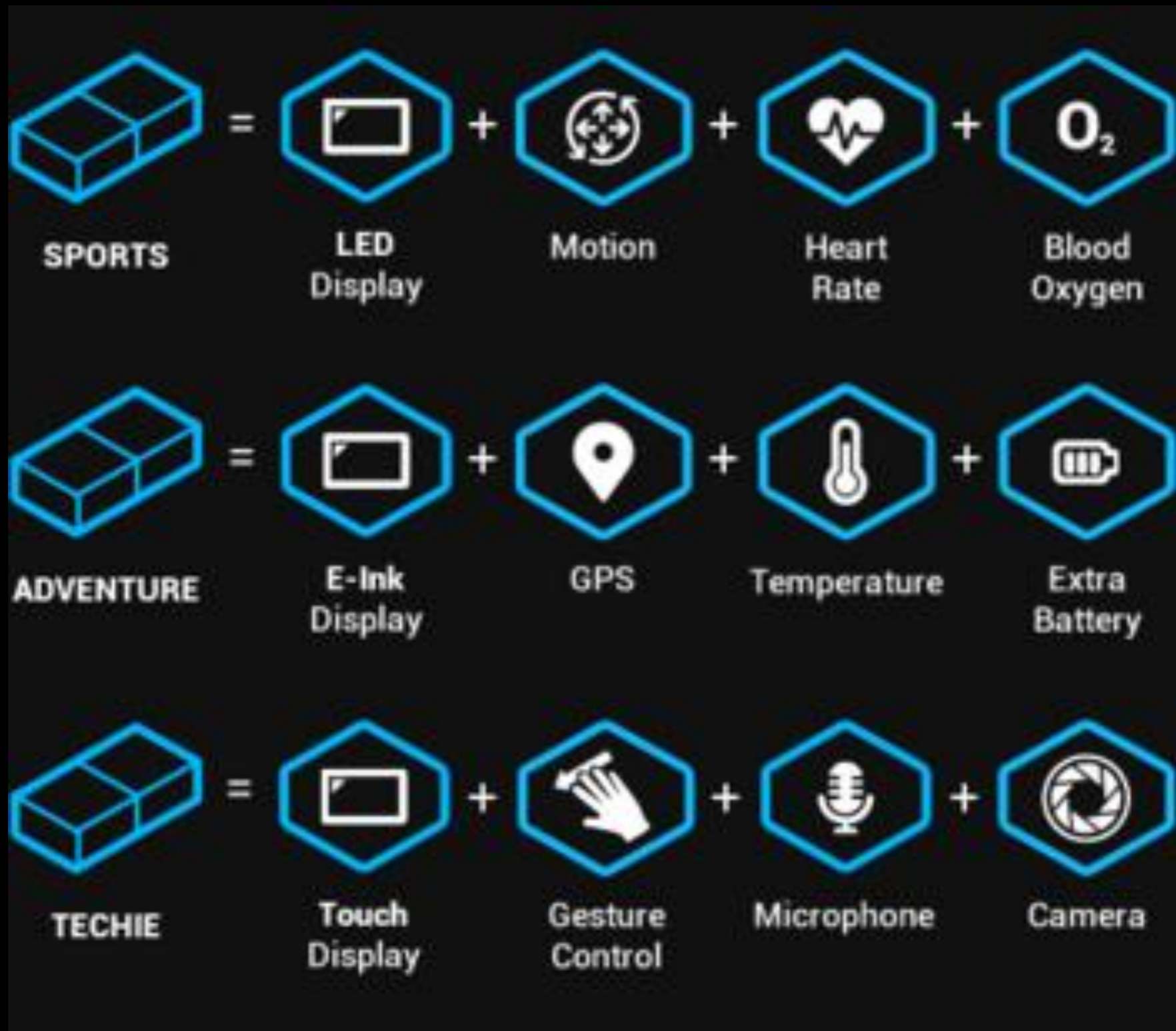
- They yield inaccurate & inconsistent results
- Product retention rate is very low
- The vast majority of them are extensions of smart phones or other 'smart' devices

We propose a new kind of wearable

Purpose

Purpose is a multifunctional modular wearable that  
is custom designed for the user and its use case







# Purpose of Purpose

- The idea is to address a person's specific needs in an given circumstance
- The modular design allows for specific use cases as well as specific users
- It also allows us to easily update, change and upgrade the incorporated technologies

# Purpose of Purpose

- Purpose will be specifically designed and assembled for the user making it custom tailored for everyone who wants or *needs* one
- Future design will also allow certain users to modulate the wearable themselves

# Purpose of Purpose

- Military Applications
- Medical Patients With Special Needs
- Elderly Folk In A Retirement Home
- People Caught In Hazardous Work, Environments or Disasters

# Why Purpose?

- Purpose is not designed for any one given activity
- It gives practical information based on the application at hand omitting unnecessary information
- Adds a more dynamic approach to data mining and networking with wearable technologies

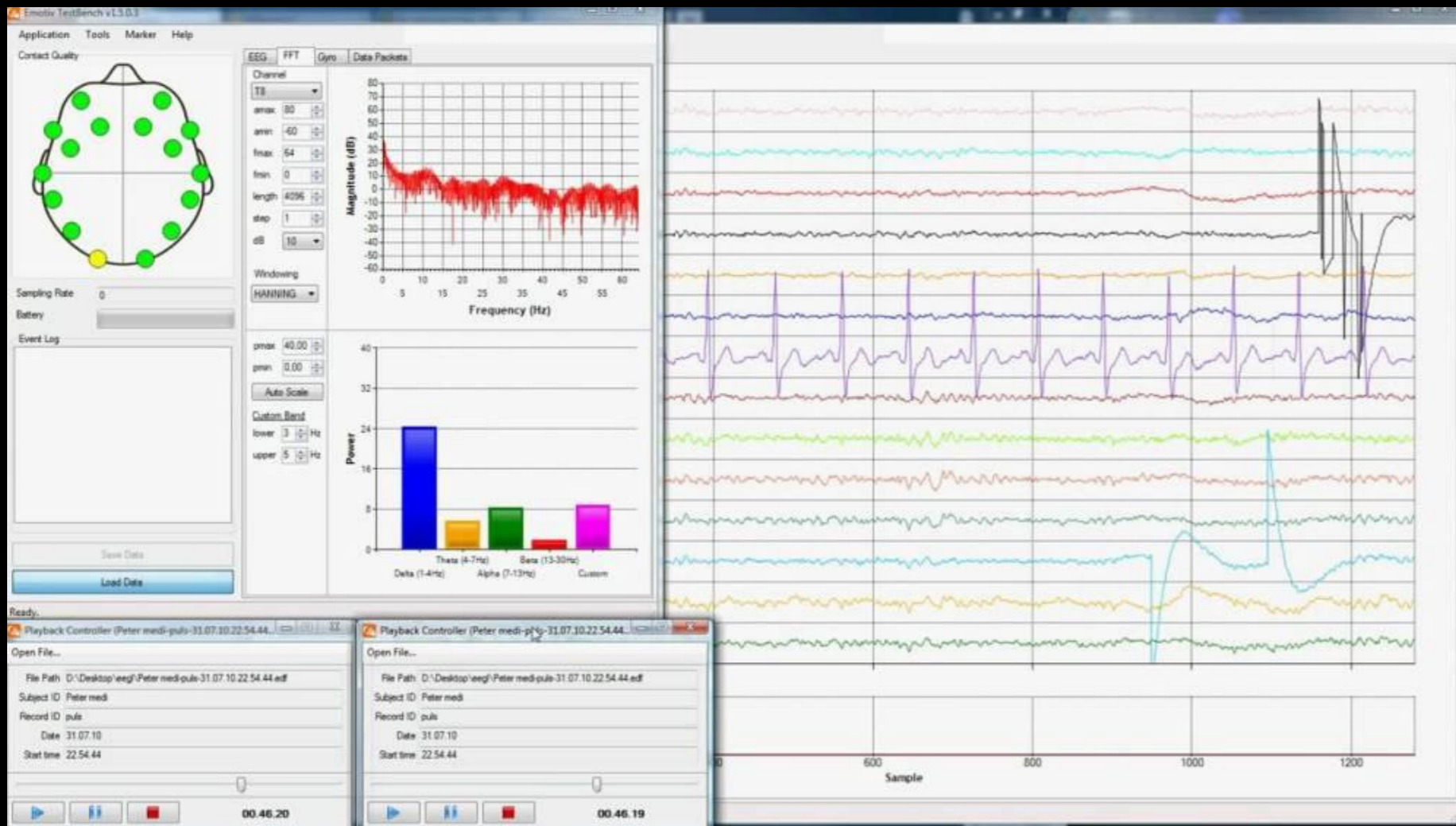
# Motivation

- Phonebloks
- Polar Team Pro Shirt
- EMotiv Epoc+
- Google Glass
- Suzanne Lee
- Fulcrum Biometrics
- Military
- Current Popular Wearables

# Prototyping

- The proof of concept for Purpose was developed using an ePoc+ and Google Glass
- We used EEG data to map cognitive information from the user when doing particular activities
- Google Glass was also implemented to record activities as well as provide user feedback

# Prototyping



# Prototyping

- Due to NDA with Black Fence Solutions, harnessed data could not be disclosed
- However the technologies we had available were enough to prove the concept that higher level wearables and feedback systems are around the corner



# Impacts On Society

- Greatly Improved HCI
- Technological Retention & Recycling
- Advanced Networking
- User Safety & Emergency Response

# Impacts On Society

- Potential Risk of Cyber Security
- Product Failure During Crisis Event
- Economical Status

# Future Progress Timeline

- Our next step would be to assemble the necessary sensors for the particular data we want to harness for a *single* application
- Next would be further investigation on materials and symbiotic biotechnology
- Then we would develop a few modular components
- Finally we would streamline and model the data networking process

# Ideal Futuristic Conditions

- Dynamic environments and communities that communicate and are influenced by Purpose