IPRO 310

Designing and Building Prototypes for Assisting Blind Swimmers

ACTIVETEAM

PROBLEM

- There are 15 million blind and visually impaired people in the North America
- 99% or more of blind people do not participate in any kind of athletic activity because they don't feel safe and secure when exercising
- Current methods that blind and visually impaired swimmers use, have many problems:

Restrictive – swimming only when no other swimmers are present

Unsafe – constantly hitting lane dividers with their arms

Expensive and dependent – hiring human tappers

OUR MISSION

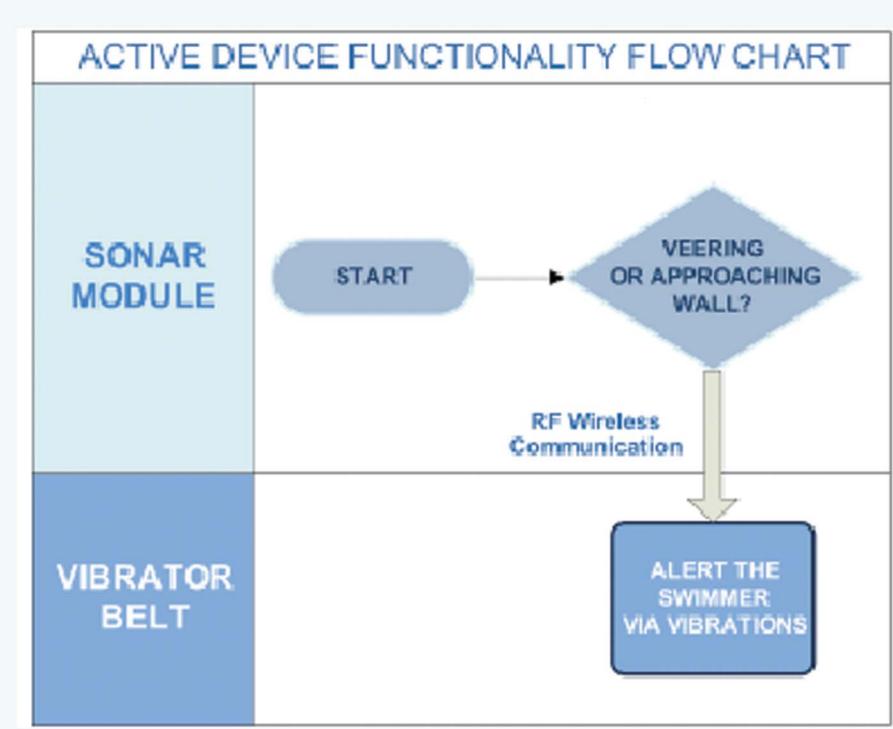
Provide a safe, effective, and reliable assistive device for visually impaired swimmers

"Enabling Visually Impaired People to Exercise Independently"

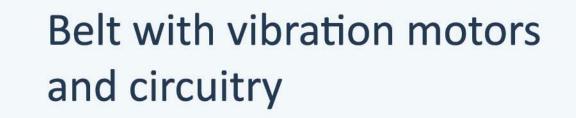


OUR PRODUCT: eyeSwim SONAR

eyeSwim SONAR is a tactile feedback electronic device used by visually impaired swimmers to position themselves in the pool and execute corrective maneuvers.



Vibration Motors Main Circuit Receive





Wireless RF kit remote to control vibrations

Main Features:

Right and left vibration motors guide the swimmer towards the center of the lane

Receiver picks up signal from transmitter for end of lane alert On/Off test circuit that will vibrate three times when switched on

ADVANTAGES of eyeSwim SONAR

- ✓ Alerts swimmer to pool sides and end
- ✓ Swimmer Independence no tappers required
- Comfortable soft and adjustable belt
- Convenient small and portable
- Orients minimizes zigzagging along lanes

TESTIMONIALS

After testing our product with blind swimmers, we got many positive responses:

- I felt safer. I wasn't afraid and I felt more comfortable.
 - Timothy J. Paul, blind swimmer
 - 66 It helped me get out of the danger zones. 99
 - Timothy J. Paul, blind swimmer
- 66 It helped me swim straight and make the corrections I needed to make. 99
 - Timothy J. Paul, blind swimmer