

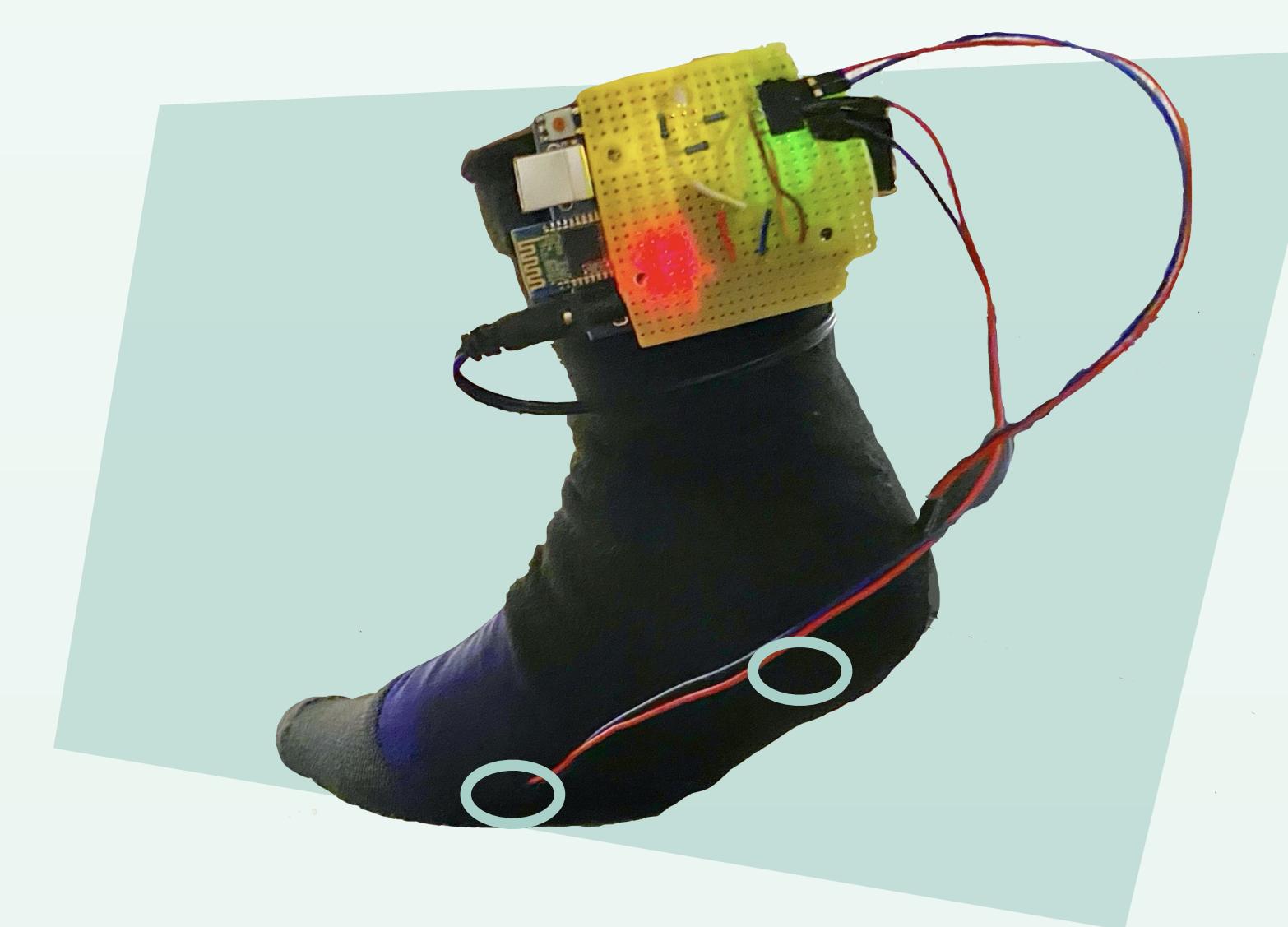


RADHIKA MARDIKAR, REVATI THATTE, KEITARO MURAKAMI, KRISTIN YAMANE, TIANA JOHNSON



## 1 WEAR

Just slip it on! As easy as putting on any sock. Fabric stretches to fit and Velcro keeps it snug.



## 2 SENSE

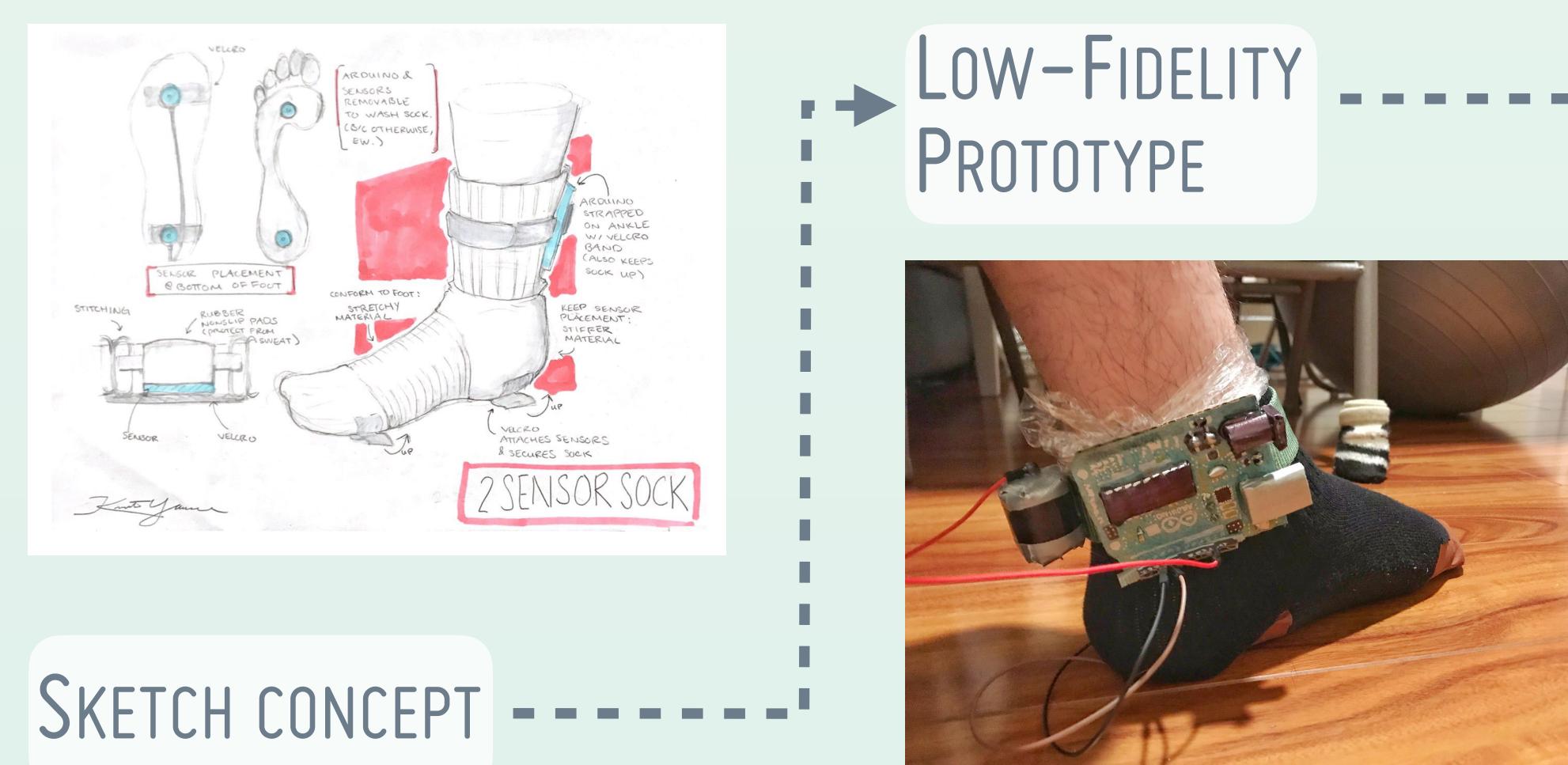
Boot it up and start walking – FootSens will read the loading on the ball and the heel of the foot.



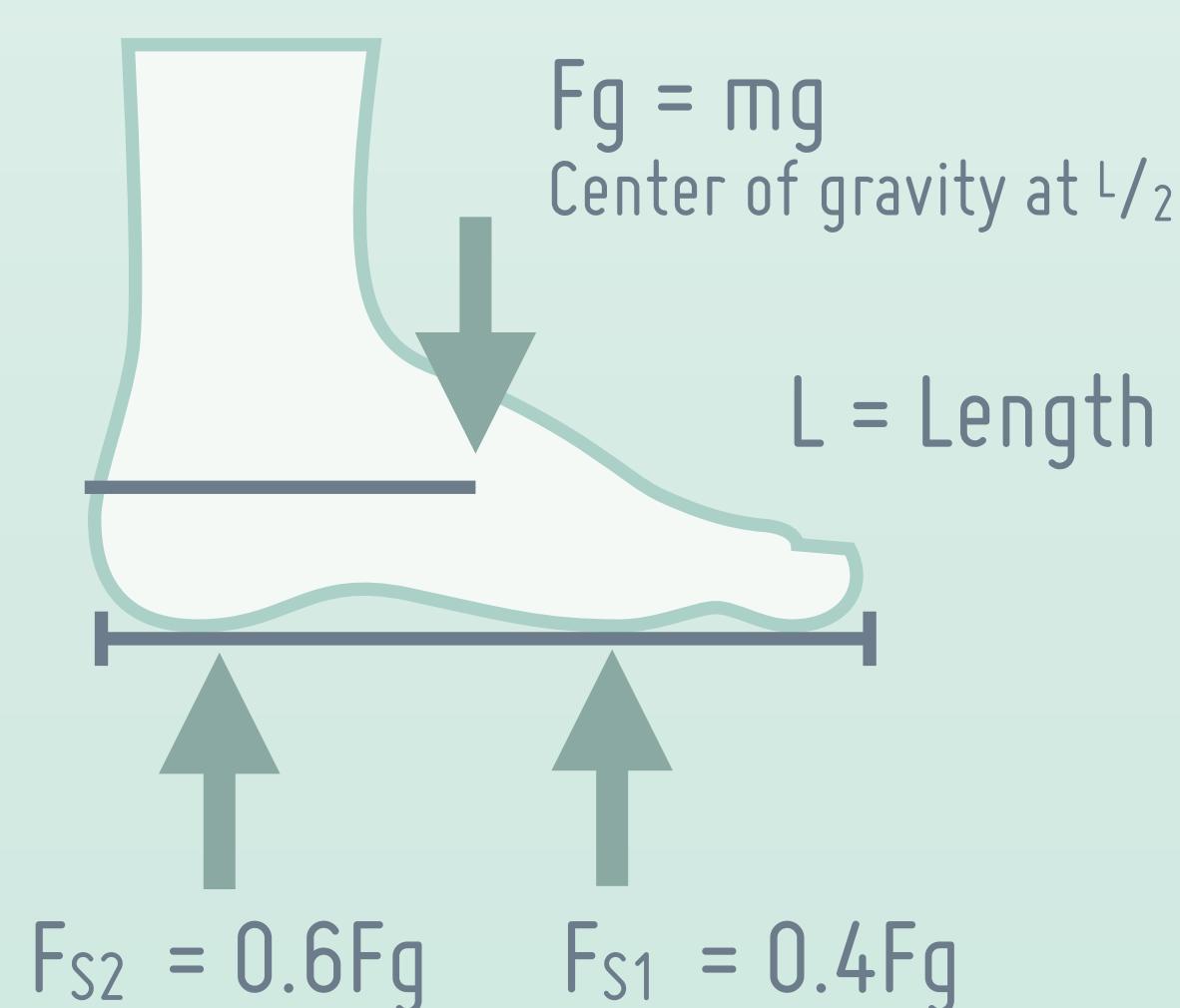
## 3 READ

FootSens sends data in real time via Bluetooth. See it on numeric graphs or a map!

## THE DESIGN PROCESS



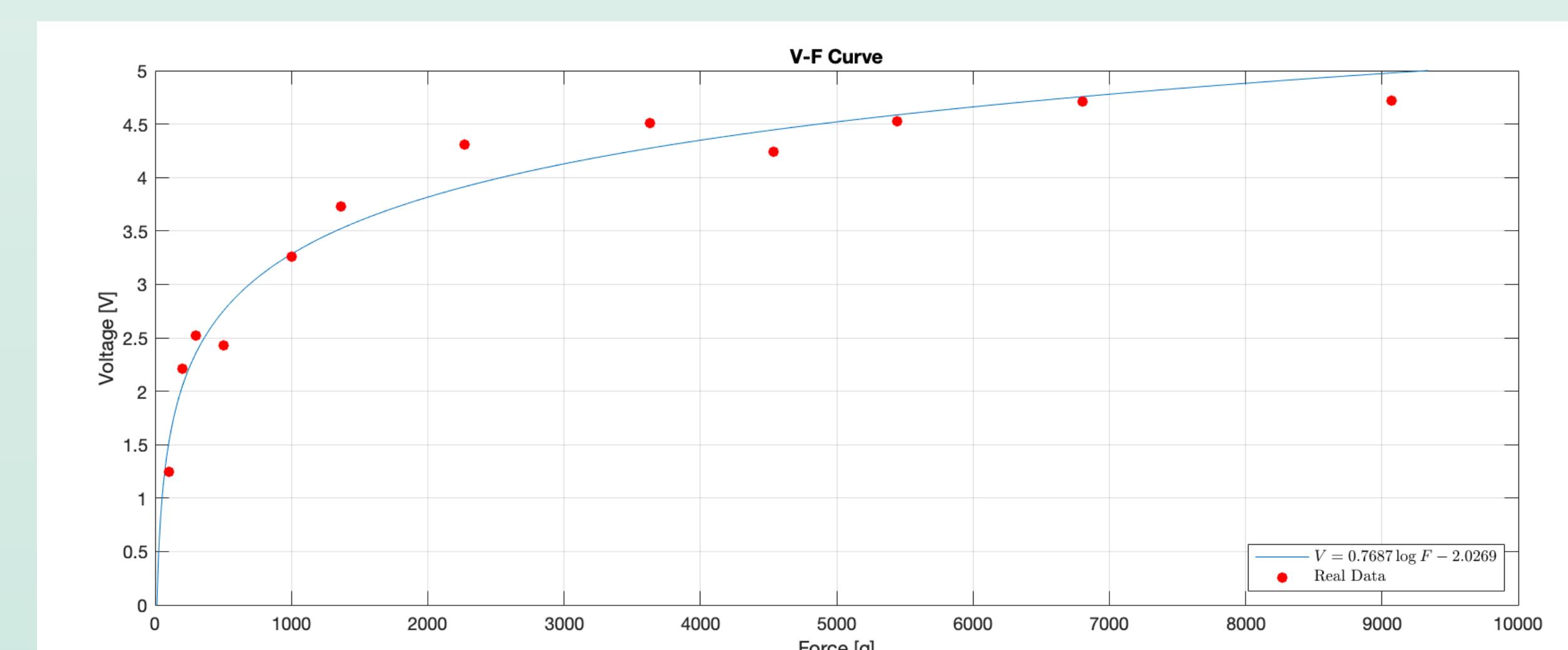
## FREE BODY DIAGRAM



Assumptions: Two major points of stability at the ball and heel of the foot.  
Approximately 60% of weight is carried at the heel.  
Here,  $m$  is taken to be  $1/2$  body weight.

## CALIBRATION CURVE

The Force Sensitive Resistors (FSRs) used in this prototype convert resistance to force readings. To do this, it requires a calibration curve, acquired through weight testing and fitting a curve to the collected data.



Design for the Human Body

