

Hermes

The Problem

- **44 million runners just in U.S.A**
- **Poor running form leads to injury**
- **Disconnect in knowing what to change and implementing changes**

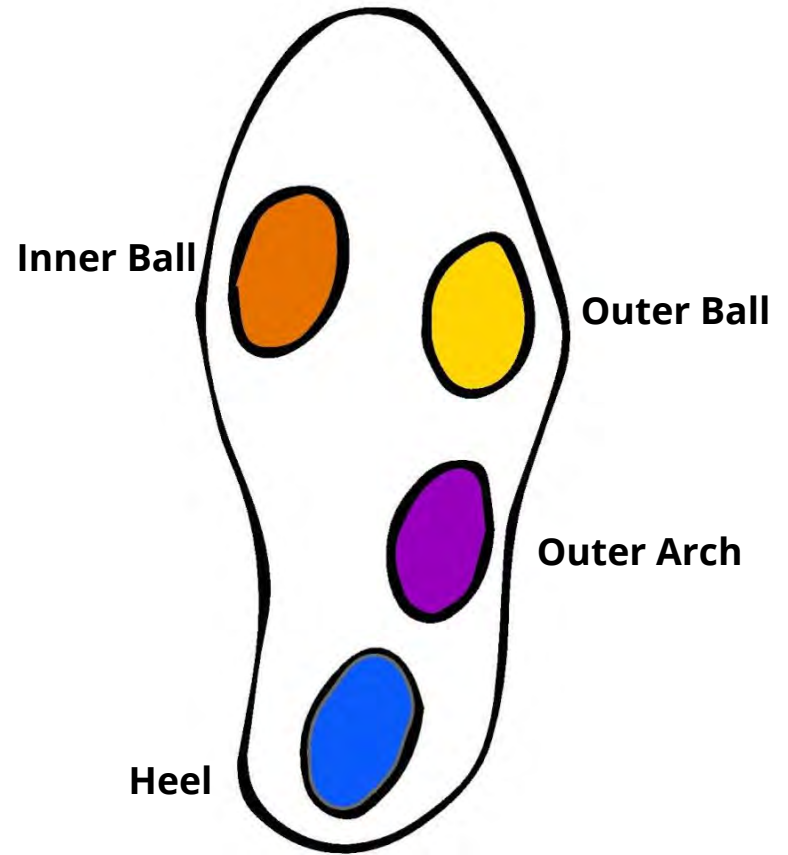
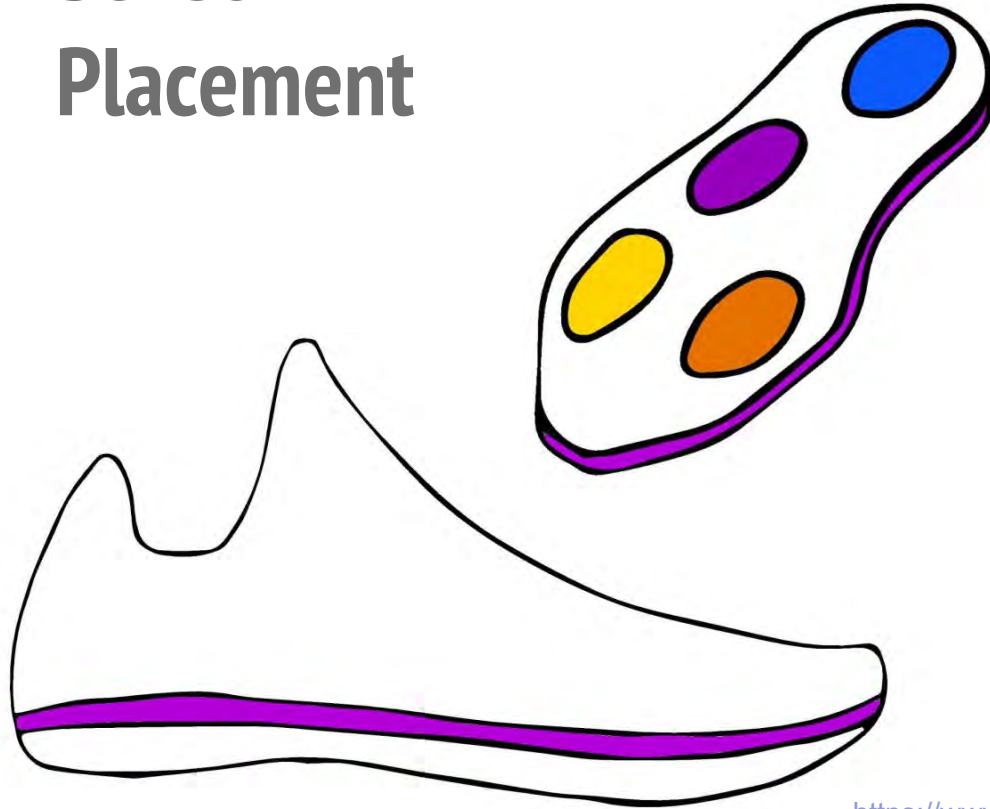


**Normal
Stride**



**Inner Knee
Collapse**

Sensor Placement

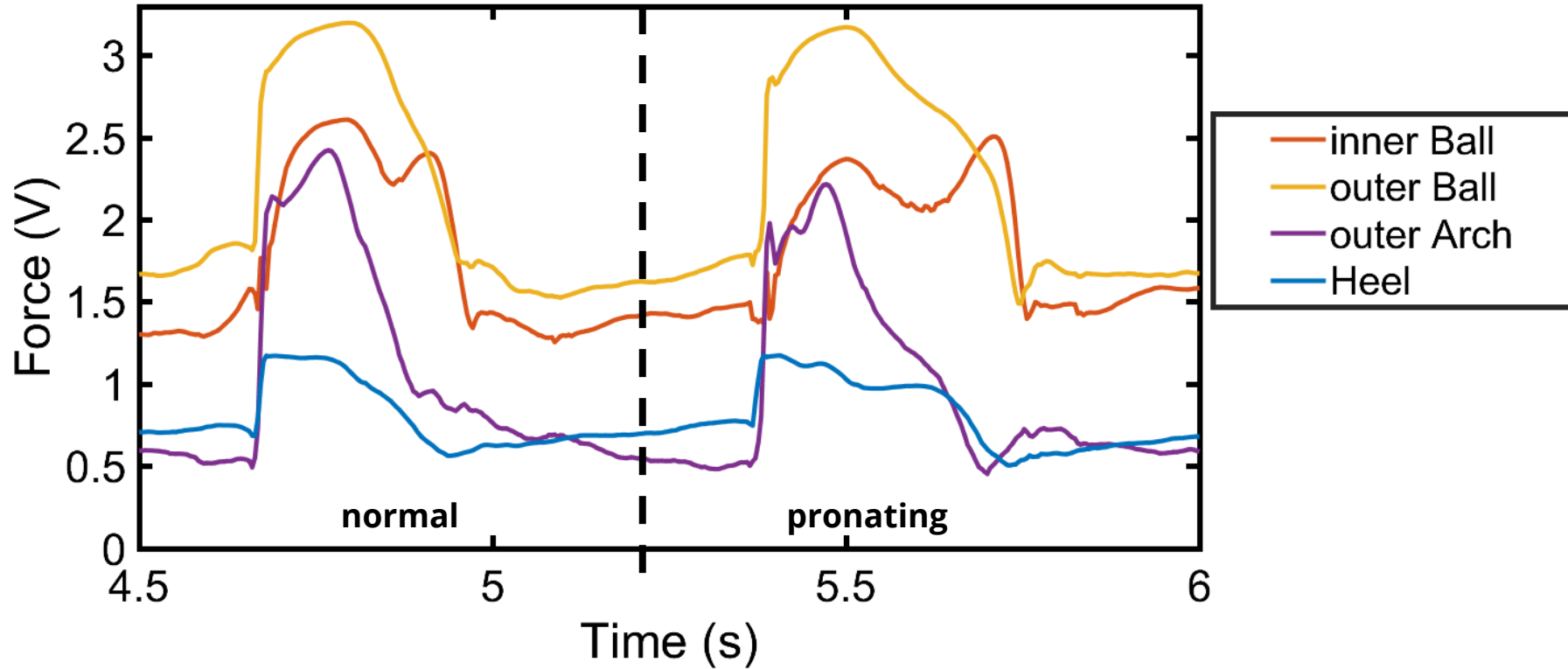


Can we detect changes in knee pronation using sensors?

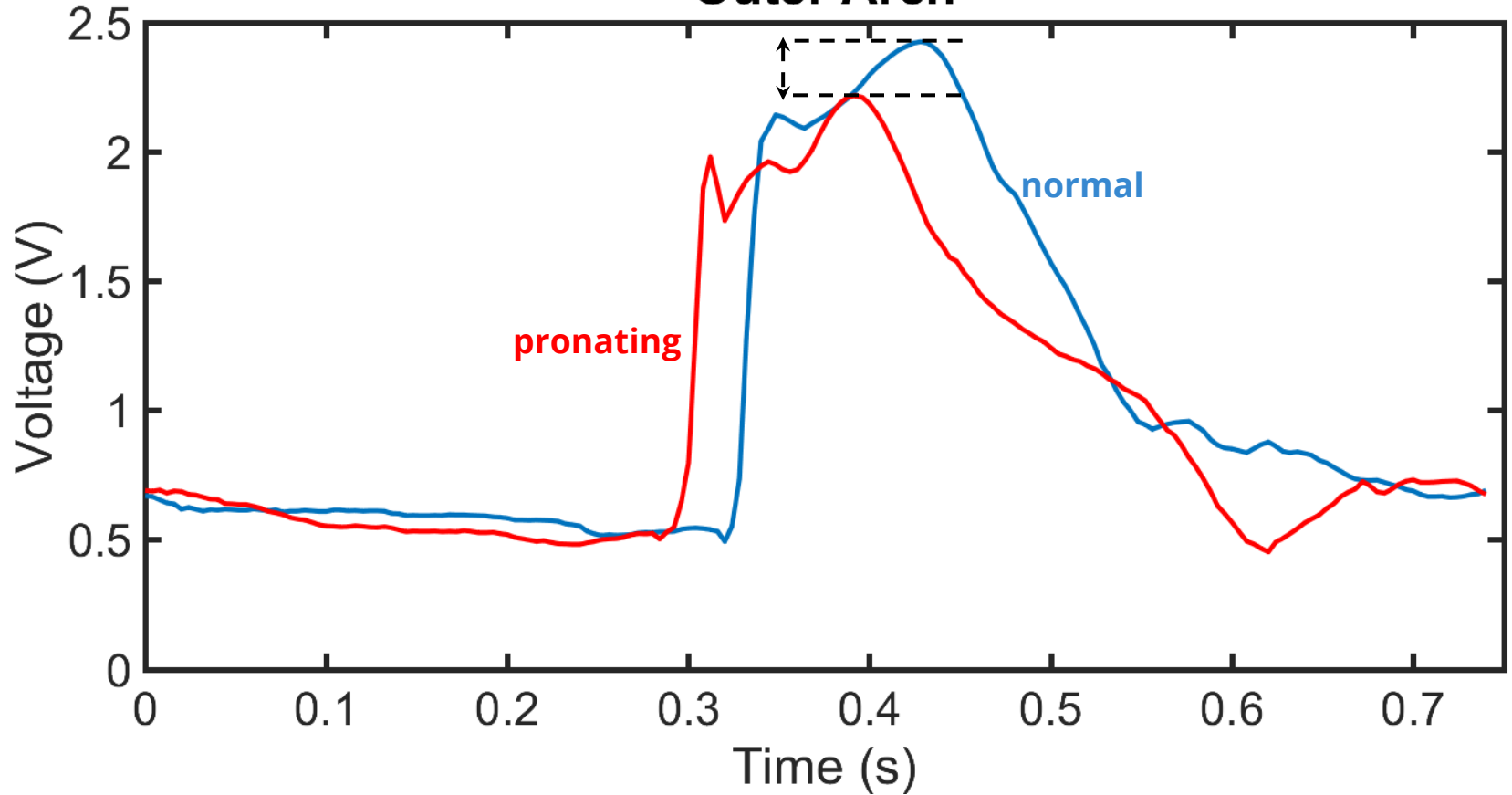
Methods tried: Knee position tracking, foot force distribution



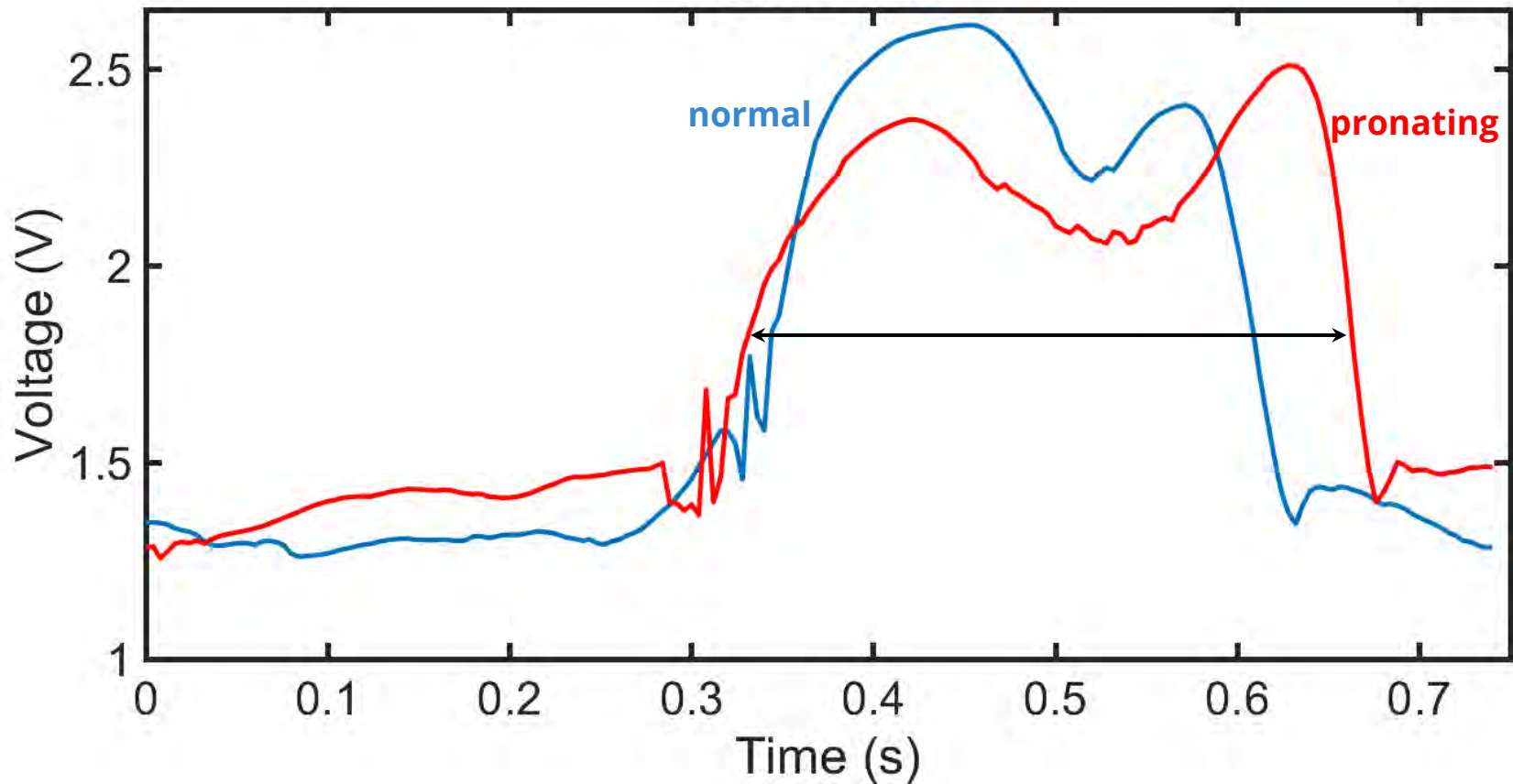
Force while Running



Normal vs Pronating Outer Arch



Normal vs Pronating Inner Ball



Benchmarking

Product	Altra Torin IQ	Ato-Gear Arion	Hermes
Real-Time Feedback			
Measures Cadence, Footstrike, Contact Time			
Usable in Multiple Shoes			
Measures Foot Pronation/Knee Collapse			

<https://www.altrafootwear.co.uk/torin-iq>

<https://www.arion.run/> <https://www.bccresearch.com/market-research/information-technology/wearable-computing-techs-applications-markets-report-ift107b.html>