

Imaging Photoplethysmography to Determine Pressure-induced Changes in Cutaneous Vascularization

Alexander Steele

Poster B15

SUNFEST REU Program

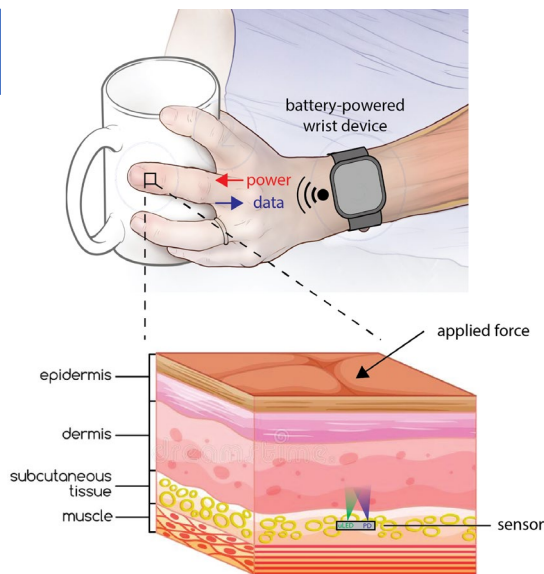
PI: Andrew Richardson

Mentors: Andrew Gabros and Avin Khera

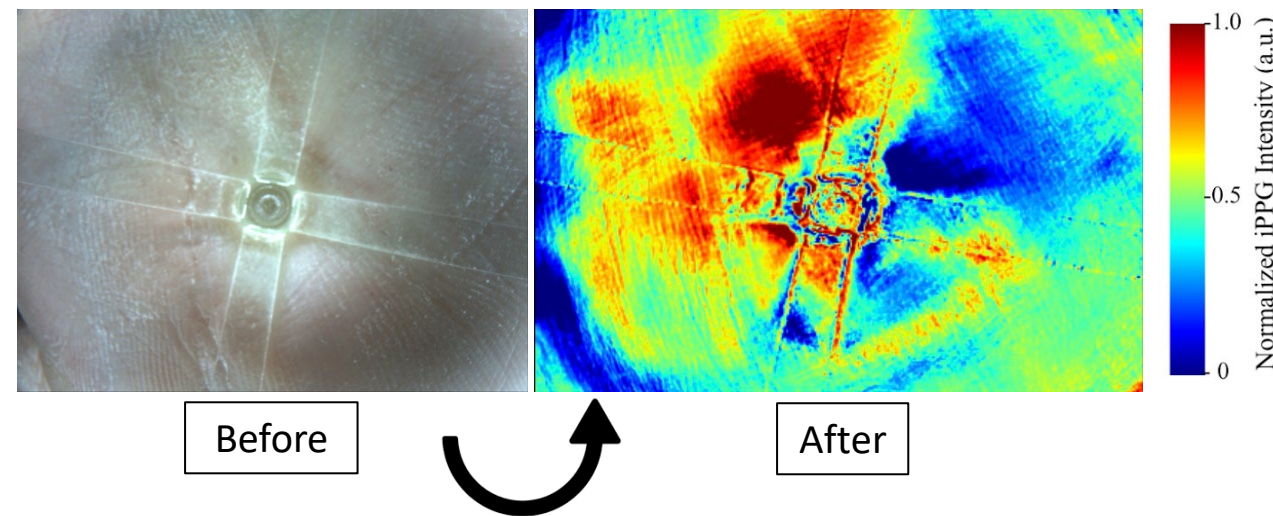
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Background

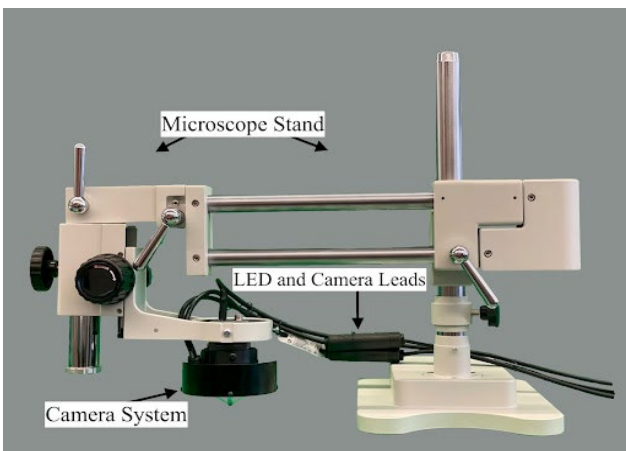
- **Sensor:**
 - Help paralysis patients regain sense of touch
- **iPPG for Circulation Imaging:**
 - Use imaging photoplethysmography (iPPG) to obtain images of the underlying circulation in the hand



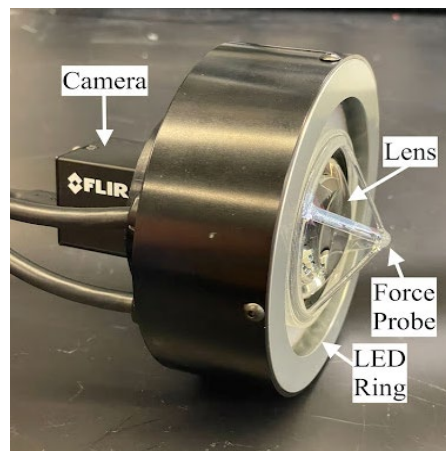
Mapping Cutaneous Blood Volume



Camera Setup



Camera System



Blood Flow Dynamics

