

Edema Grading with Camera

Robert Gold

Wireless Fitness Technologies LLC

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Company Background

Wireless Fitness Technologies develops products with universities.

The president of Wireless Fitness Technologies is Robert Gold RPH, MBA, BCACP a pharmacist and co-inventor of the Intelligent Basketball with Spalding and the wireless pill bottle and water bottle with UAH.

Description of the Work to be Done

Edema is the medical term for swelling caused by fluid trapped in the body's tissues. Edema happens when the small blood vessels leak fluid into nearby tissues. That extra fluid builds up, which makes the tissue swell. Edema happens most often in the feet, ankles and legs, but can affect other parts of the body, such as face, hands and abdomen. Edema can affect anyone, especially people who are pregnant and adults aged 65 and older. One study found that chronic peripheral edema affects about 19% of the population, and it disproportionately affects women, racial minorities, and people with lower incomes.

Project Goal

Design a device using a camera with a phone or a built-in camera with a phone using the motion microscope which is open-source software that can reveal details in video that are otherwise invisible. Kathleen Kelly evaluated the software and reports that the student could download it and compile it.

<https://search.app/RPrtwYPmgTZ6avgE7>

The software will be used on Edema trainers such as

www.gtsimulators.com

The camera, phone and simulators will be provided by Robert Gold

Preferred Team size 4

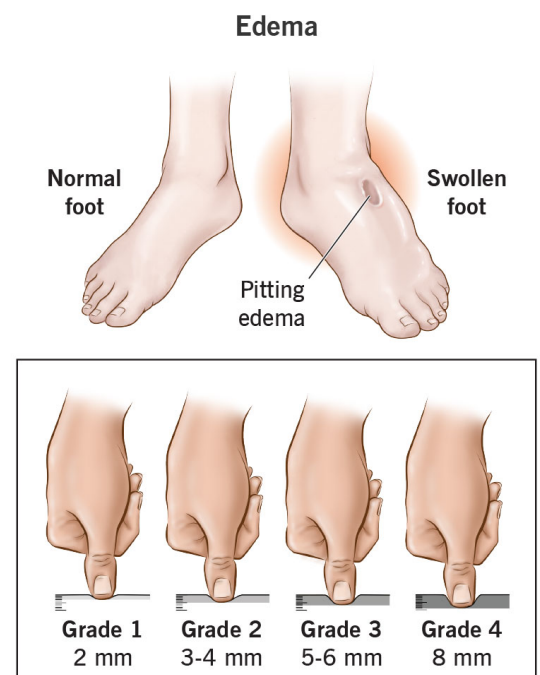
Potential for future work

A positive test of the software could lead to future potential opportunities.

Location of work

Colorado School of Mines or can be done at work from home.

NDA will be required.



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Requirements

- Research of the various classifications of edema
- Analysis of appropriate force
- Functional prototype

Client Expectations

- Communication: Initial virtual meeting with Robert Gold followed by email update summaries every two weeks thereafter.
- A project report with:
 - Construction Drawings
 - Construction Instructions
 - Bill of Material
 - Testing Results

Suggested Review:

Wireless Fitness Technologies: <https://www.f6s.com/wirelessfitnesstechnologiesllc>