



Principal Product Engineer (Hardware)

About Leuko - <http://leuko.io>

Leuko, an MIT Spin-out, is developing the world's first non-invasive white blood cell monitoring device. White blood cell assessment is a first-line indicator for various medically-relevant situations, ranging from chemotherapy management to the detection of life threatening infections worldwide. This test is currently invasive and not readily accessible - it requires patient travel, blood draws and laboratory infrastructure. This currently limits the frequency of monitoring, which puts patients' health, and even lives, at risk. Leuko is re-imagining the way to perform these tests without extracting blood and in a portable device. Leuko's vision is to empower patients and their loved ones, and make their lives better and safer by providing them with broad and immediate access to blood testing. In 2018, our work has been awarded 1st prize at the Startup Worldcup, 1st prize at MassChallenge HealthTech and 1st prize at the M2D2 Medical Device competition.

Responsibilities:

1. Lead the refinement of hardware prototype elements, with validation through human testing
2. Collaborate with software research team to refine hardware design of functional prototype
3. Coordinate human studies to validate performance of functional prototypes
4. Replication and maintenance of prototypes ad-hoc (in-house and outsourced machining of parts, assembly, testing, and maintenance)
5. Collaborate with team and product development advisors to develop product target specifications
6. Collaborate with team to identify and refine product development strategies and potential partners
7. Adhere to quality management systems during development process
8. Nurture a friendly and safe working environment

Requirements:

- BS or MS degree in Mechanical Engineering, Electrical Engineering, Biomedical Engineering, Materials Science or related field
- Experience in systems design and integration for scientific and medical devices
- Track record in hardware prototyping of human-interface devices
- Experience with product development quality management systems
- Experience with optics, especially miniaturization would be a strong plus
- Experience in design for mass production is a plus
- Broad and deep mechanical and materials engineering knowledge of manufacturing processes and materials
- Ability to evaluate a large set of tradeoffs and possibilities in interactions of various components and systems and select optimal solution
- Extremely detail oriented, with passion to perfect and document designs and processes
- Persuasive and organized technical communicator to team members and management
- Ability to self-manage and deliver according to a schedule