



Engineering Intern, Job Description 2021 – Power For Humanity, Inc.

<u>Time Frame</u>	Spring/Summer of 2021 (pending)
<u>Hours per week</u>	Up to 40 (flexible)
<u>Location</u>	Greentown Labs, Somerville, MA (and remote)
<u>Contact</u>	If interested, email Alex Smith, CTO: alex@powerforhumanity.com

Position description

We're looking for an energetic intern to work on various mechanical and electrical engineering projects. You should be passionate, motivated, and eager to learn about:

1. Energy harvesting from ambient humidity using novel thin-films
2. Design and testing of a new, patent pending propeller system

Tasks

Thin-film energy harvesting:

- ❖ Fabrication and optimization of prototypes (i.e. nanofabrication)
- ❖ Testing and analyzing prototypes for electrical characterization
- ❖ Integrating prototypes to power small electronic devices

Innovative propeller:

- ❖ SolidWorks/CAD design of prototypes
- ❖ CFD simulations of various designs
- ❖ 3-D printing prototypes for testing
- ❖ Building and using a small testbed

About Power For Humanity

Power For Humanity is a start-up developing a new clean energy technology that generates power using humidity in the ambient air (as published in *Nature*). This is possible using novel nanomaterials and biomaterials that we fabricate into thin films that resemble solar panels. Our goal is to provide safe, continuous, and renewable energy for low-power high-value electronics applications like sensors and mobile electronics. We are also starting work on a second project to design and test an innovative propeller that can improve propeller performance for a variety of applications including for aircraft, marine craft, and wind turbines.