

D-Lab Scale-Ups Fellows



The MIT D-Lab Scale-Ups Fellowship offers one year of support to social entrepreneurs bringing hardware-based, poverty-alleviating products and services to market at scale. Alumni of the [Massachusetts Institute of Technology \(MIT\)](#) and the [International Development Design Summit](#) are eligible to [apply](#). Scale-Ups Fellows receive a \$20,000 grant, tailored mentorship, skills-building, and networking opportunities.

Fellows enter the program with a compelling proof-of-concept, and a few to thousands of units tested or sold. During the 12-month fellowship, entrepreneurs work to retire risk in technical feasibility and market viability, thereby positioning their ventures for investment, partnership, and growth. Since the fellowship program's launch in 2012, Scale-Ups has sponsored 27 fellows working on four continents in sectors including agriculture, energy, water, healthcare, housing, mobility and recycling. [Applications](#) for 2016 are closed.

MEET THE 2016 SCALE-UPS FELLOWS



HEATHER BEEM

Practical Education Network - *Teacher training workshops that build the capacity of STEM teachers* - Ghana

Issue: There are 250 million children who are not learning basic skills, even though half of them have spent at least four years in school.

Solution: The Practical Education Network (PEN) offers a series of workshops in which STEM teachers learn, design, and share hands-on activities which complement the national curriculum. PEN's approach blends constructivist learning with locally-available materials, empowering Ghanaian STEM teachers to teach experientially.

Scale-Ups Fellow: Heather holds a PhD in Mechanical Engineering from the Massachusetts Institute of Technology. During her time in graduate school and at D-Lab, she developed a passion for STEM education and indigenous innovation. She co-founded and co-instructed D-Lab: Education in addition to mentoring students from various other D-Lab classes.



ARUN CHERIAN

Rise Legs - *A lightweight, cane-based, ecofriendly prosthetic leg* - India

Issue: Prosthetic legs currently on the Indian market are either free and inefficient, or efficient, but far too costly for many users.

Solution: Rise Legs prosthetics are up to four times lighter than similarly priced products, and are fabricated using cane from local forests, providing a sustainable stream of income to local cane artisans. Each leg is assembled by local technicians and distributed in partnership with established programs and organizations that focus their work on people living with disabilities.

Scale-Ups Fellow: Arun Cheria quit his PhD in Mechanical engineering at Purdue University, to develop Rise Legs. Previously, he had been a researcher at the University of California, Berkeley developing wearable exoskeletal suits to help the paralyzed people walk. He holds an MS in mechanical engineering from Columbia University and a BS in mechanical engineering from Anna University.



JACKIE STENSON

uLink - *An end-to-end platform to develop and manage low-cost modular microgrids in off-grid areas* - India

Issue: The adverse health, education, and economic impact of living without access to electricity.

Solution: Smaller than a shoebox, powered by their smart energy operating system and powerful cloud management software, uLink is the all-in-one, plug and play solution for Energy Service Providers (ESPs). uLink hardware is a smart Power Management Unit (PMU) that serves as the building block of a modular microgrid, where generating households can sell electricity to consuming households in the vicinity.

Scale-Ups Fellow: Wardah Inam has a PhD in Electrical Engineering and Computer Science from MIT with a research focus on system level design of uLink technology to best serve the off-grid market. For the past seven years, she has been working on developing energy efficient technologies for renewable energy deployment. She is passionate about building products that can improve peoples lives.



Essmart - *Building a rechargeable headlamp for rural Indian farmers* - India

Issue: Many south Indian farming tasks require the use of both hands in low-light settings, making those tasks unsafe, inconvenient or inefficient.

Solution: Essmart is developing an affordable, bright, rechargeable headlamp to be sold with a warranty. This will entail design and development of the Essmart headlamp prototype, user testing and adoption studies, and eventually, rollout of the product to the shops in Essmart's growing network.

Scale-Ups Fellow: Jackie has an SB in mechanical engineering from Harvard and an MPhil in Engineering for Sustainable Development from the University of Cambridge. She has been featured on the Forbes 30 Under 30 list, as an Echoing Green Fellow, and as a Cartier Women's Initiative Awards Laureate for her work with Essmart.

SCALE-UPS FELLOWSHIP PROJECTS

- AEST Agricultural Waste Charcoal - 2015
- Augmented Infant Resuscitator - 2013
- Essmart Global — 2016
- Ghonsla - 2014
- GreenPath Food - 2015
- JANMA: Clean Birth Kit in a Purse - 2013
- Leveraged Freedom Chair
- Mechanized Multicrop Thresher - 2015
- MoringaConnect - 2013
- Multicrop Thresher - 2013
- OttoClave - 2013
- PortaTherm - 2013
- PoupaCerto - 2015
- Pracial Education Network - 2016
- Protoprint - 2014
- Rise Legs — 2016
- SEED Jarna Pump - 2014
- STG Micro-Grid - 2014
- Saathipads - 2015
- Solar Water Purifier - 2012
- Solarclave - 2012
- Wecyclers - 2013
- Wound-Pump - 2014
- Zasaka - 2014
- Zimba - 2014
- tinyPipes - 2014
- uLink - 2016

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CONTACT

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