

Bilateral Science and Technology Collaboration with Asia 2017-2020

Mand.ro Co. Ltd.

Workload: 100%

Workplace: Mand.ro Co. Ltd, 202-1211 Chun-Ui Technopark 2, Bucheonro-198gil 18, Bucheon-si, South Korea

[Mand.ro](#) Co. Ltd. develops and provides functioning prosthetic limbs for upper-limb amputees with its own mission statement: "There shouldn't be anyone who cannot afford prosthetic hands because of money." With this vision, Mand.ro has developed 20-30x times less expensive, but also very lightweight prosthetic devices (2/3 of weight) compared with existing prostheses.

Responsibilities of intern:

Prosthetics

- Assembly and Customized Manufacturing of Prosthetic Hands (Terminal Devices and Sockets)
- Testing, evaluation for incremental improvement/development
- 3D modeling and 3D printing

Robotics

- Robotic arm (prosthetic arm) – user interaction (interface between an amputee and a robotic arm) - which may include sensor programming, and/or developing sensor itself (electronics and mechanical designs)
- Mechanical design and evaluation (testing) of robotic joints (wrist, elbow, finger joints)

Requirements:

- Currently enrolled Bachelor or Master Student in mechanical engineering, electrical engineering or computer engineering currently at a Swiss university or university of applied sciences; **or** who graduated as BSc or MSc within less than 12 months before the starting date of the internship.
 - mechanical engineer(s) will be asked to evaluate and improve robotic movement units,
 - electrical engineer(s) will be asked to evaluate and improve sensor and electronics,
 - computer engineer(s) will be asked to develop new features on top of existing code implementations
- Swiss national or resident in Switzerland
- 3D modeling (mechanical engineering)
- Basic circuit design and development (electrical engineering)
- C Programming for controlling low-level primitives of robots (computer science)
- Fluent in English, Korean is an asset but not required
- Open minded, proactive and independent person

Employment conditions:

- 2-3 months full time internship with start date based on mutual agreement
- Basic furnished accommodation offered by company
- Work day lunch coupons offered by company
- Monthly tickets for subway transportation offered by company
- One Mand.ro hand – mark 5 version (for further research purpose, worth USD 999)
- Scholarship through the bilateral science and technology programme with Asia covering flight and additional living costs