Friedrich-Alexander-Universität
Department Artificial Intelligence in Biomedical Engineering

SPARC

Uniklinikum Erlangen

Design and Development of a Mechanical Suturing Help

Master's Thesis at the SPARC Lab (sparc.tf.fau.de)

Problem:

Training (and perfoming) a continuous suture requires two surgeons.
One performs the suture, the other keeps the thread under slight tension.

Thesis Goal:

Design of an automated system to keep a suture thread under tension.

Required skills:

- Fluent in English or German
- Basic knowledge in mechatronics
- Experience in designing of mechanical prototype
- Experience in realizing said prototype
- Working independent and self-supervised
- [optional] Basic coding skills and electrical engineering (if an automated system is used)

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Thesis description and video