Objective

Studies show that surgeons prefer working with experienced assistants, since they enhance safety and efficiency in controlling surgical instruments. However, provision of an expert surgical assistant workforce remains problematic in many cases. The outcome of this project addresses this issue by empowering surgeons to command more instruments on their own.

Project Details

In collaboration with a PhD student, the laparoscope movements will be analysed in surgical observations. Based on the obtained insights, a shared control strategy will be developed and tested in simulated surgical setups. The project delivers a hardware-software package for automatic commanding of certain degrees of freedom in a robotic laparoscope holder.

Prerequisites

Mechatronics students familiar with dynamical systems, robotics, programming and control are encouraged to apply.

Additional Information

Applicants may be required to attend an interview.