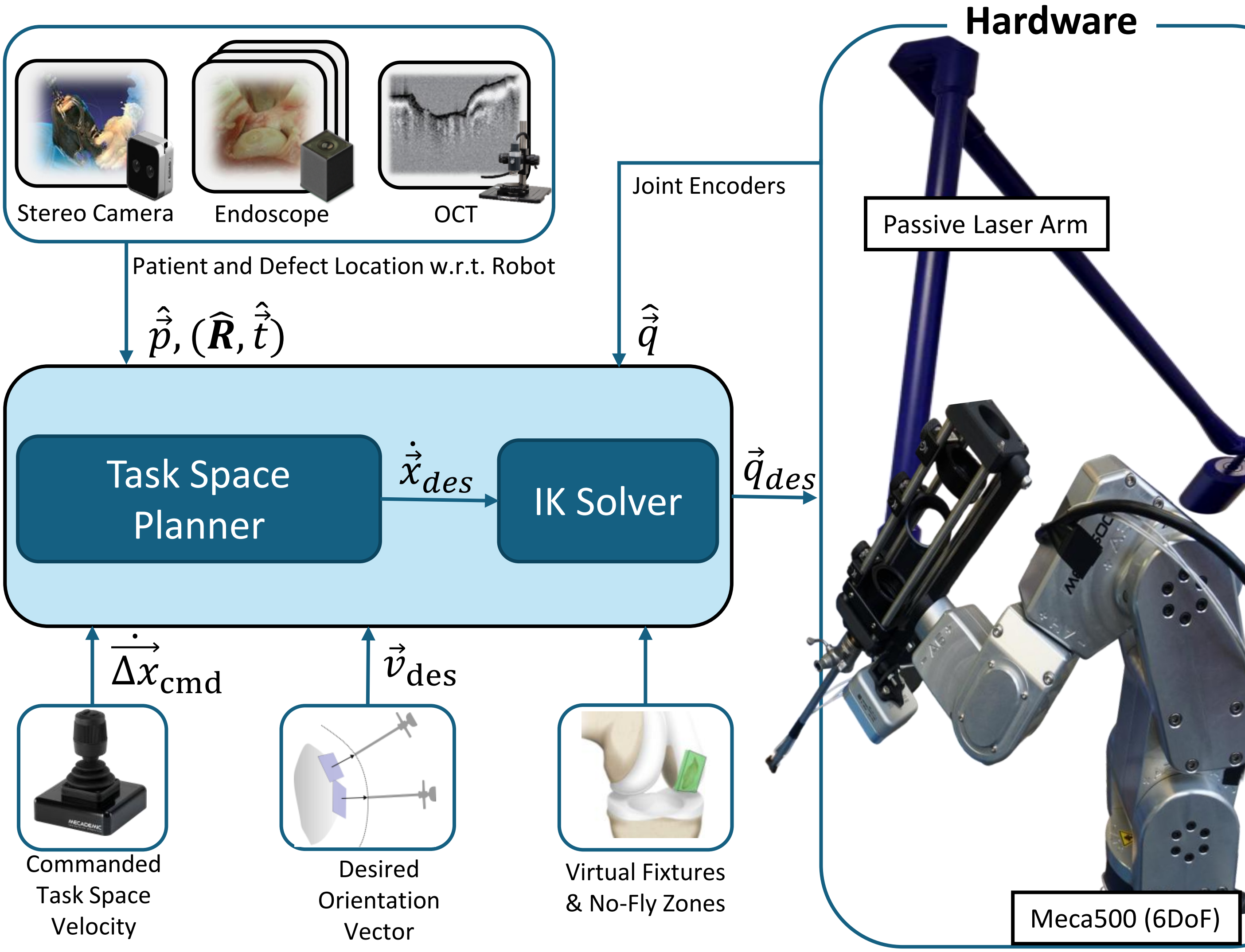
Constraint-Compliant Control for Laser Ablation

Master Thesis

Joint injuries and cartilage degeneration affect millions worldwide, causing pain and reduced mobility. The **LAROCARE (Laser-Assisted RObot-guided CArtilage REgeneration)** project uses a combination of robotics and laser technology to enable precise restoration of cartilage in the knee.

Develop a control framework that enforces both mechanical constraints from the passive linkage and task-space constraints for safe and precise laser ablation of tissue.

Remote Center of Motion, Hierarchical Control, Passive Coupling, Virtual Fixture, No-fly Zone



Apply to this project by email. Send us (jan.schimmelpfennig@unibas.ch) your **CV**, and **diplomas**, and **course transcripts**.

On-Site or Remote

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