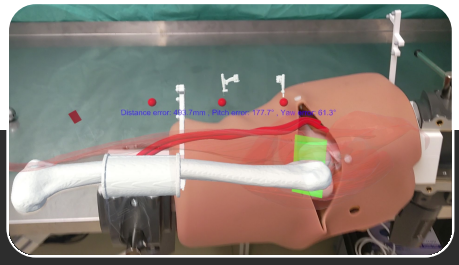
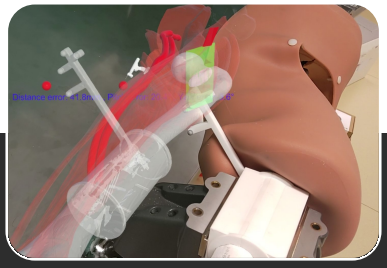
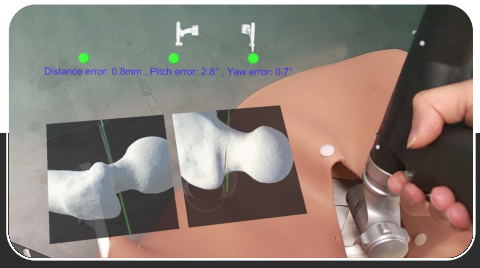
AR Open Surgery Training For Total Hip Arthroplasty

Roni Lekar[1], Luohong Wu[2], Tatiana Gerth[1], Pascal Bühler[1], Matthias Seibold[2], Philipp Fürnstahl[2], Helmut Grabner[1]
[1] ZHAW, [2] Balgrist University Hospital

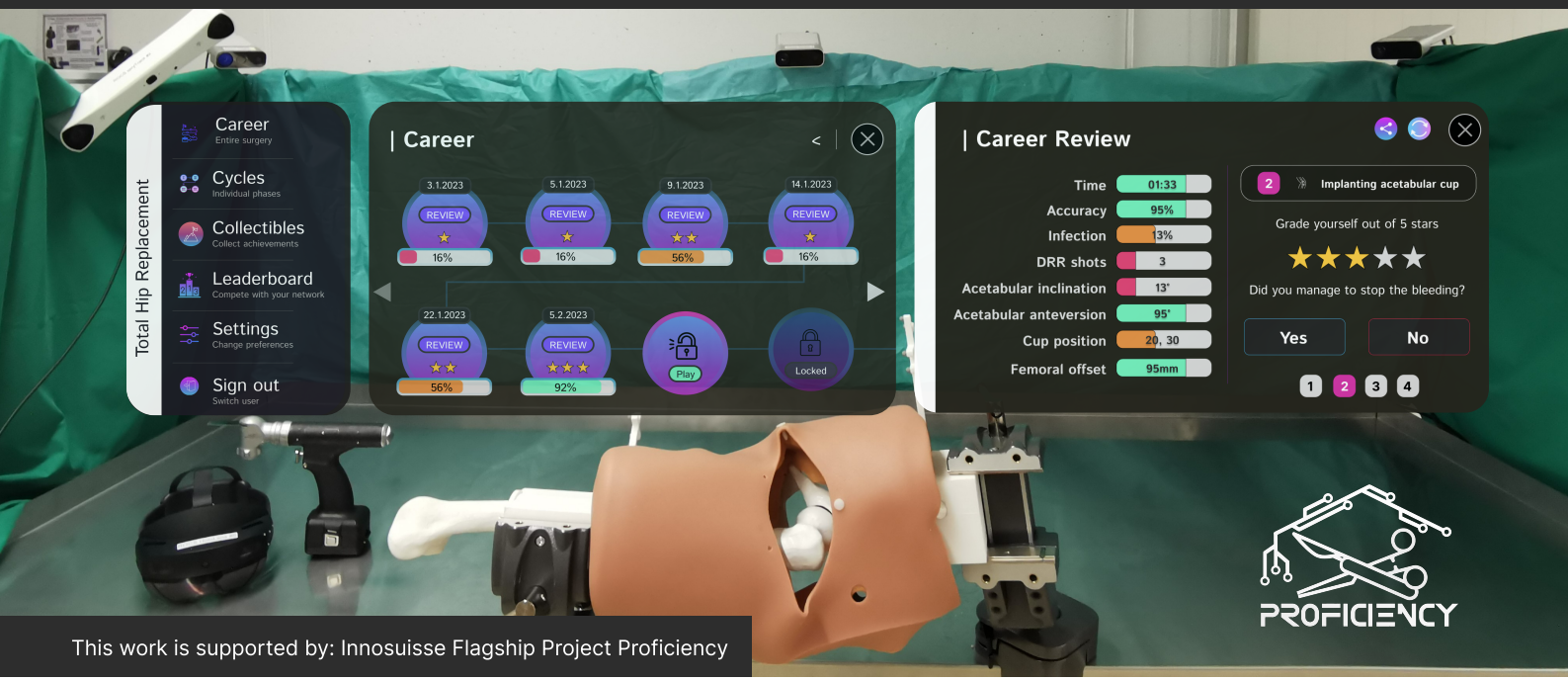
Background | The competency and skill development of aspiring surgeons heavily depend on surgical training. Traditionally, open surgery training has relied on cadavers, enabling trainees to actively participate in tutor-guided and evaluated interventions, which are crucial aspects of their education. Nonetheless, this approach places additional burdens and risks on patients, along with considerable time and financial constraints.







AR Based Training | Our main objective is to create an AR-based simulator for open orthopedic surgery training, specifically focusing on Total Hip Arthroplasty. This simulator represents a significant advancement over conventional cadaver-based training as it integrates adaptive AR guidance and AI techniques. By harnessing the power of intuitive AR instructions and leveraging AI-driven analysis of human activity and behavior, our aim is to optimize the usability of surgical training simulators. Ultimately, this will reduce the strain on patients and minimize the requirement for constant instructor and technical support during surgical education.



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