

# FreeHand robotic surgery system



Prosurgics

**Rapid development of a user friendly, low cost  
robotic device.**

## Expertise and domain knowledge

- System architecture
- Mechanical design
- Stereoscopic imaging
- Image processing
- Enhanced illumination
- Rapid design and development
- Medical device regulation
- Surgical environment
- Cost reduction



## Our client asked:

ProSurgics needed a partner to rapidly develop FreeHand: a more compact, user-friendly and lower cost robotic surgery system than the existing EndoAssist product. The timescales to upgrade their EndoAssist product were ambitious.

## The project story:

FreeHand Assisted Surgery uses the Robotic Camera Controller to provide a clear and steady image, where the surgeon has full and precise control enabling optimal efficiency in the operating field.

- Sagentia Innovation was responsible for the management and coordination of all partners and work commenced immediately
- Sagentia Innovation carried out the full mechanical, electronics and software development for the system
- We worked with the client to optimise the BoM for both disposable and capital elements
- We managed the supply chain and manufacturing transfer
- The development was extremely rapid – 7 months to prototypes deployed
- Software was developed and validated to prevailing ISO standards in only 12 months
- We provided full design history records for regulatory filings

## Results: deliverables and outcomes

- FreeHand was awarded 'Innovation of the Year' by the Society of Laparoendoscopic Surgeons in 2008
- FreeHand was winner of the ERBI Medtech Innovation award in 2008
- FDA clearance and CE Mark approval in 2009

## Contact us

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