Attaining the Critical View of Safety in Laparoscopic Cholecystectomy Using Adaptive Visual Feedback in Virtual Reality Training System

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SimCVS

Simulator for the Critical View of Safety (CVS) Training

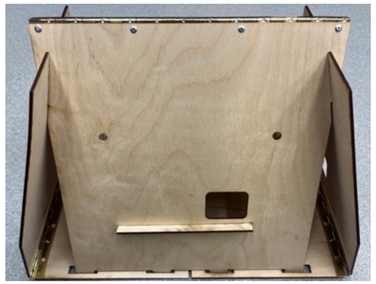
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Objective

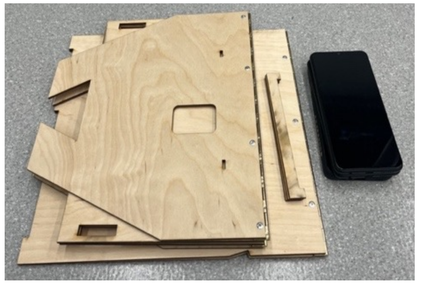
Portable **C**amera **A**ided **S**imulator (**PortCAS**)

- **Development** of portable instrument-tracking hardware coupled with VR module enables **LOW-COST/ANYTIME/ANYWHERE** training for **CVS**
- **PortCAS** is designed to **fold flat** for **easy transportation**

Prototype

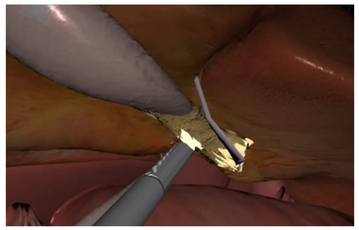


(A) Assembled Configuration

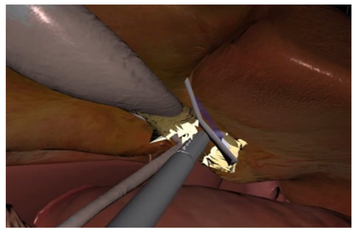


(B) Collapsed Configuration

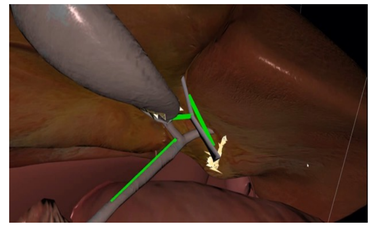
- Gallbladder neck and cystic duct covered under fatty layers



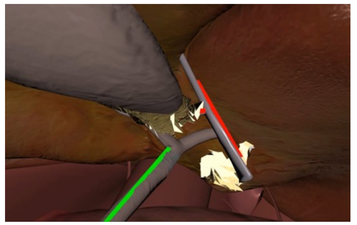
- Visual Feedback gradually appears to guide to attain **CVS**



- Visual Feedback to guide to attain **CVS**



- Visual Feedback to achieve the **CVS** to prevent bile duct injuries



Take a picture to **sign up.**

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