LAPARA PROJECT:
Robotic Articulating Laparoscopic Instrument

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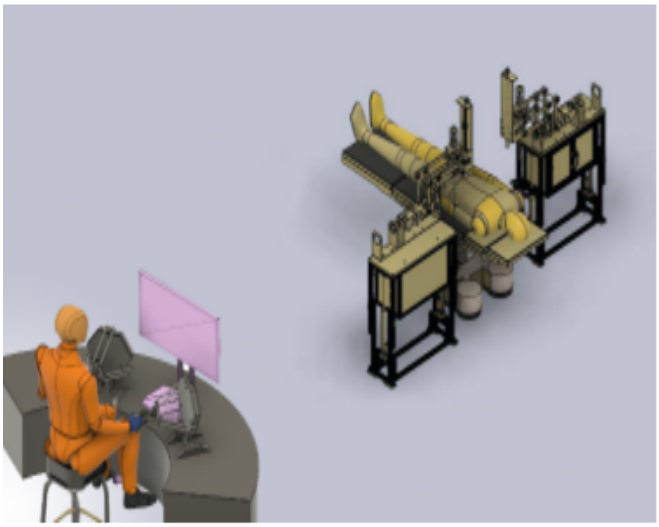
THE PROBLEM

Conventional laparoscopic tools can be quite stressful to use and lack the mobility needed for more precise procedures. These tools may also cause musculoskeletal problems to the surgeons due to awkward positions when performing laparoscopic surgeries.

Medical technology, specifically in the field of surgery, has since been adapting to newer and more advanced technologies. Less invasive and more accurate surgical robots were developed for faster recovery rates and less scarring. Although these surgical robots have proven to be more efficient, most surgical robots are costly and difficult to obtain for local hospitals in the Philippines.



TECHNOLOGY GENERATOR

De La Salle University
Project leader: Dr. Nilo T. Bugtai

THE SOLUTION

The Institute of Biomedical Engineering and Health Technologies, under De La Salle University, and in collaboration with the St. Luke's Medical Center, developed and designed **LAPARA**, a robotic articulating laparoscopic instrument. LAPARA would enable precise movements through the robotic arm that utilizes joint articulation to mimic hand and arm movement. Its modular design features interchangeable parts to eliminate the need for additional reconfiguration.

TECHNOLOGY DEVELOPMENT

The device is currently at Technology Readiness Level (TRL) 4. The system has passed through safety testing such as mechanical testing, electrical testing, and electro-magnetic compatibility (EMC) Testing. Pre-clinical testing with the surgeons using pig cadaver is to be done before the end of the current phase.

Interested technology adopters may send a letter of intent addressed to:

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