

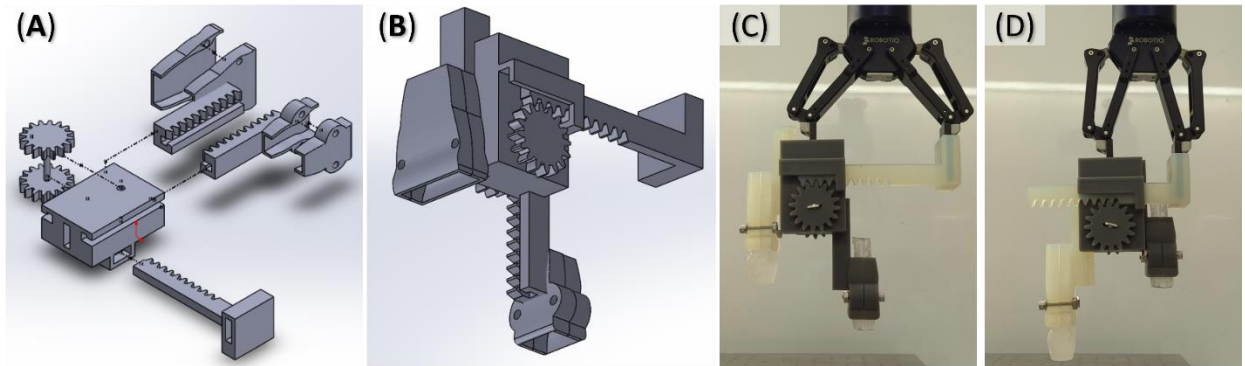
# **Design and Testing of Ultrasound Probe Adapters for a Robotic Imaging Platform**

Krysta-Lynn Amezcua<sup>1</sup>, James Collier<sup>1</sup>, Michael Lopez<sup>1</sup>, Sofia I. Hernandez-Torres<sup>1</sup>, Austin Ruiz<sup>1</sup>, Rachel Gathright<sup>1</sup>, Eric J. Snider<sup>1\*</sup>

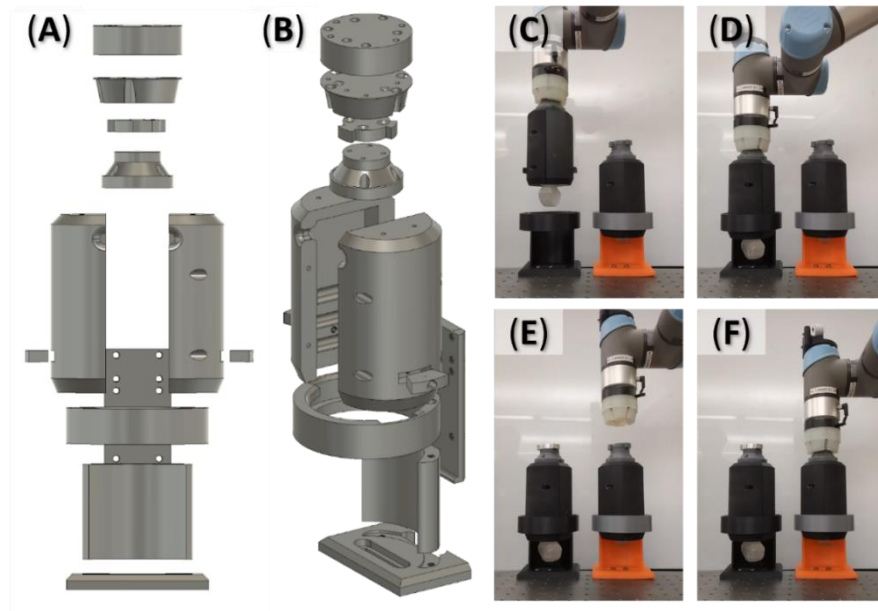
<sup>1</sup> Organ Support and Automation Technologies Group, U.S. Army Institute of Surgical Research, JBSA Fort Sam Houston, San Antonio, TX 78234, USA

\* Corresponding Author: [eric.j.snider3.civ@health.mil](mailto:eric.j.snider3.civ@health.mil) (E.J.S.)

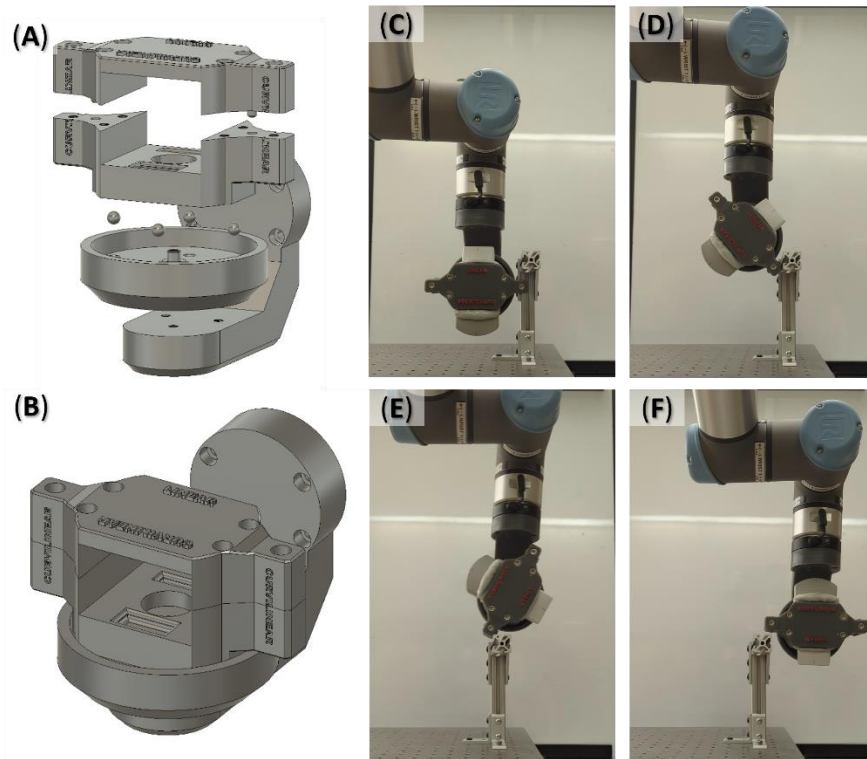
## Supplementary Information



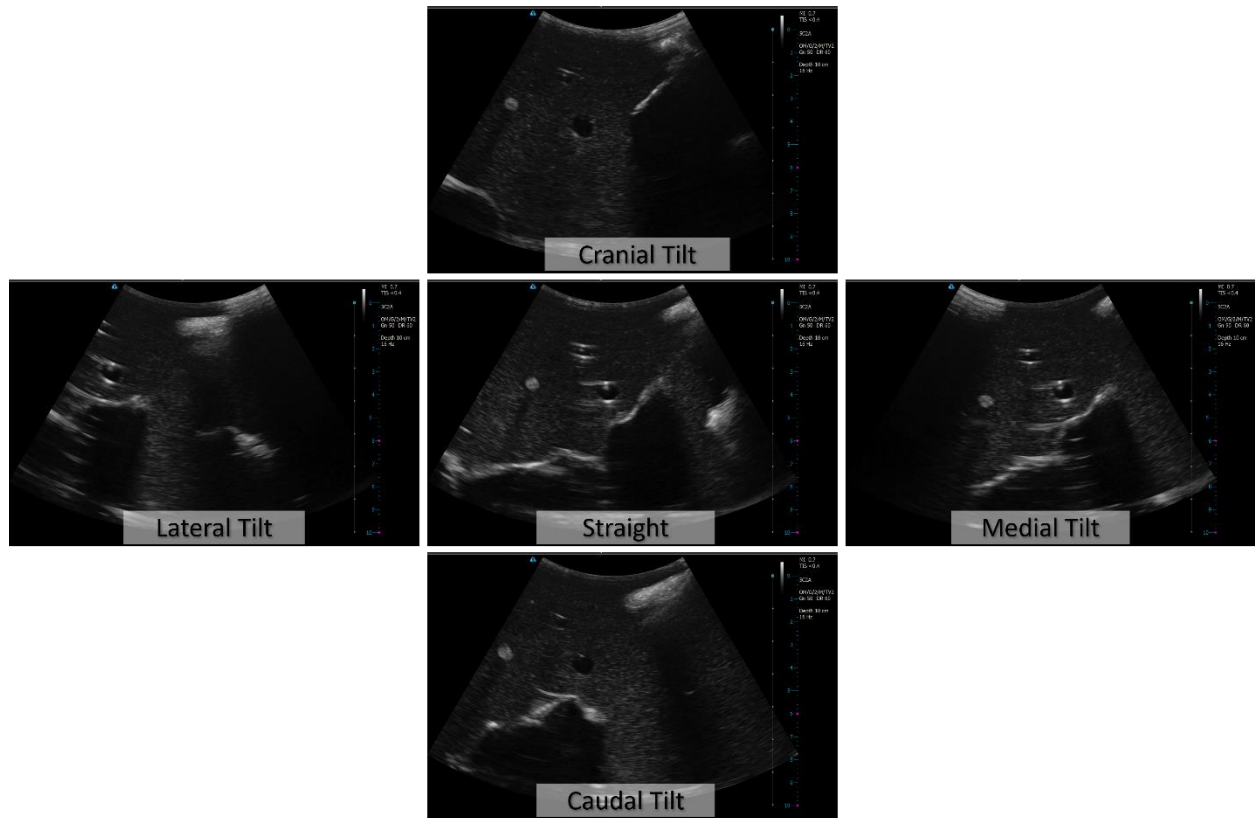
**Figure S1. Overview of The Gear Design ultrasound probe holder.** Engineering diagram of The Gear Design in (A) exploded view and (B) assembled view. The design can switch between (C) linear and (D) curvilinear transducer configurations.



**Figure S2. Overview of the Modular Design ultrasound probe holder.** Engineering diagram of the Modular Design in (A) front and (B) oblique exploded view. (C-F) The design can swap between linear and curvilinear transducer housed in docking stations.



**Figure S3. Overview of The Dual-End Design ultrasound probe holder.** Engineering diagram of The Dual-End Design in (A) exploded view and (B) assembled view. (C-F) The design can swap between linear and curvilinear transducer by rotation around a horizontal bar.



**Figure S4. Representative ultrasound images from repeatability testing with tissue phantom.** US images of the phantom leg were captured to evaluate scanning repeatability of each probe adapter design at different angles (identified in figure).