

3-D Ultrasound Tomographic Imaging Scanner

Project Goals

- Construct automated 3-D ultrasound imaging device by collecting 2-D ultrasound images and reconstructing the images to produce a 3-D rendering
- Create user friendly interface for control inputs
- Track and control transducer position with sub millimeter precision linearly and within ± 0.25 degree radially
- Perform real time image reconstruction

Project Deliverables

- Transducer mount and gantry
- Source code for controls and user interface
- Controller for controlling motors and receiving position signals
- Rectifier for controller and motor power
- Position sensor network

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