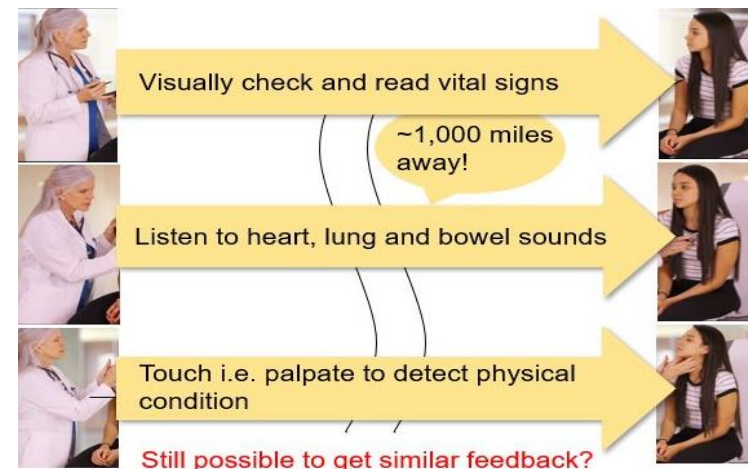




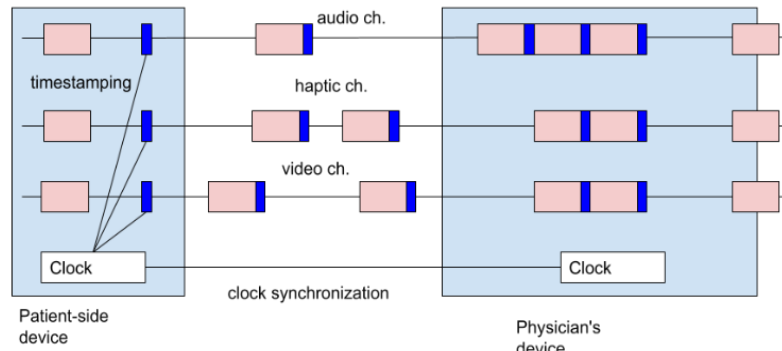
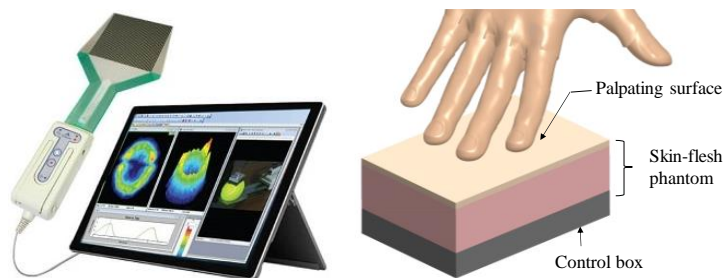
2026516 FW-HTF-P: Future Telemedicine Technologies and Multidisciplinary Workforce Readiness

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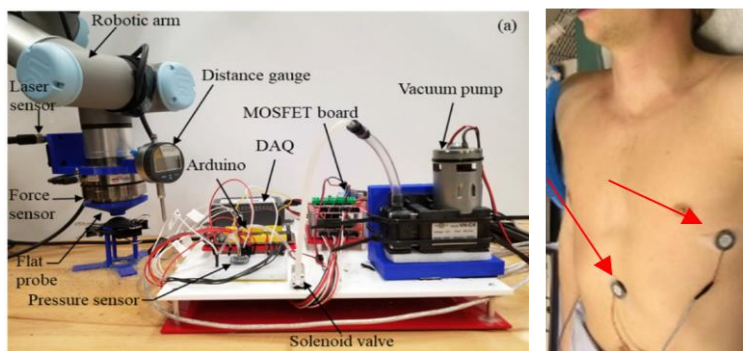
Idea: tele-palpation and digital auscultation enabled synchronized multimodal telemedicine. Objectives (planning project): 1) identify and establish core telemedicine technologies and 2) plan educational integration for future workforce



Technologies established



Pressure sensor and tactile display



Tactile display palpation test rig and patch-type body sound sensors

Multimodality data synchronization enabling big data approaches



Bidirectional Portable Patient Unit and Provider Station via cellular network

Discipline	Planning activity	Outcomes
Soft robotics	Design and initiate tactile display development	System development plan, class integration plan
Bioacoustics	Design and initiate tele auscultation development	Sensor customization and filtering plan, class integration plan
Network	Identify network protocol, plan system development	Communication protocol, development plan, class integration plan
Cybersecurity	Identify and design data security research	Data security development plan, class integration plan
Nursing	Identify and plan user evaluation and training	User evaluation and training plan
Learning	Plan and test educational integration evaluation	Educational evaluation method and plan
Workforce training	Identify and design work experience programs	Curricular and internship integration plan
Outreach	Identify local outreach activities	Outreach and evaluation plan

Planning stage activity and outcome metrics