Physical Anatomical Trainer Instrumented for Education and Non-subjective Testing (PATIENT)

Award Information
- Agency: Department of Defense
- Branch: Defense Health Program
- Contract: W81XWH-13-C-0058
- Agency Tracking Number: H122-002-0175
- Amount: $149,908.00
- Phase: Phase I
- Program: SBIR
- Awards Year: 2013
- Solicitation Year: 2012
- Solicitation Topic Code: DHP12-002
- Solicitation Number: 2012.2

Small Business Information
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HUBZone Owned: N
Woman Owned: N
Socially and Economically Disadvantaged: N
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Abstract
Mannequins are often used to develop skills and train medical personnel. Existing models fall short of ideal functionality, however. Mannequins that can provide simulated systemic responses are generally not equipped for simulating surgical intervention. Mannequins that can simulate surgical intervention are not able to record exact student actions for quantifying their performance. In careful consideration of the needs of the system, and the best way to economically and realistically meet the needs, Infoscitex Corporation is developing the Physical Anatomical Trainer Instrumented for Education and Non-subjective Testing (PATIENT). PATIENT uses complementary technologies to present the most realistic model for modern training requirements for organs, vasculature, instrumentation, and controls. With the right components, the physical configuration of a proper tissue trainer is relatively straightforward. Under previous funding, we have developed inexpensive polymeric organ models that bleed realistically under traumatic or surgical events. We have also developed a blood analogue that clots in the presence of bandage and pressure. In this Phase 1 effort, we will address the instrumentation for the organs, the method for relaying force data and controlling the response of each organ, and develop the control algorithms that govern PATIENT.

* Information listed above is at the time of submission. *