

# Innovations in Education

## Force Sensing Table Technology™

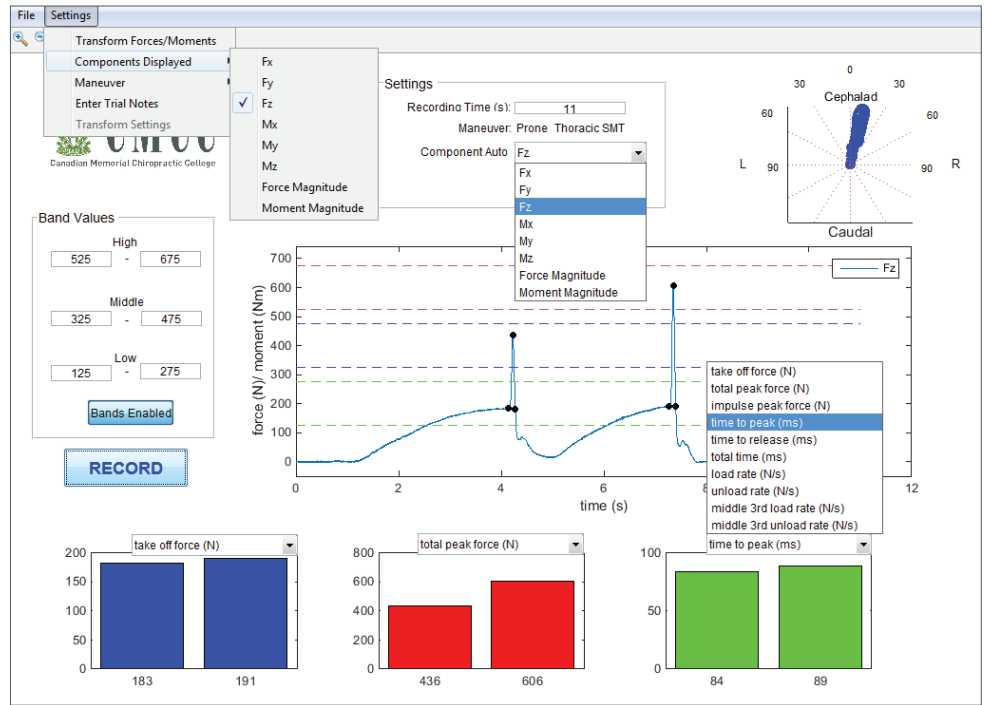


# Force Sensing Table Technology™ (FSTT)\* as a Learning Assessment Tool

## †Patent Pending

To enhance the development of motor skills used to deliver spinal manipulation, the Canadian Memorial Chiropractic College integrated force plate technology into therapeutic tables. These force sensing tables provide instantaneous data on loads transmitted by the manual therapist and offer both students with immediate object feedback of results of their performance through a display of their force-time profile.

The skills of students can be directly quantified and compared to expert force-time profiles and students can then use this objective feedback to model the desired behavior rather than rely on observational and intrinsic feedback alone.



The FSTT™ system is intended to be used for teaching and learning, assessment and research purposes.





# Standard all-in-one FSTT™ Package



## FSTT Equipment

- **Treatment table with embedded force plate system**
  - Motorized flexion/distraction continuous passive motion tail piece
- **Desktop computer with monitor, pre-loaded software and user manual**
- **Human Analogue Mannequin (HAM™) for manipulation training**
  - Flexible neck for cervical procedures
  - Compliant superficial tissue simulation
  - Compliant thoracic compression simulation
  - Anatomically correct body landmarks

## FSTT Features

- **Continuous recording for repeated measure rehearsals with automated digitizing function to display visual knowledge of results output**
  - Baseline pre-load values (*take off force*)
  - Force amplitude (*total peak force & impulse peak force*)
  - Rate-of-rise in force (*average or middle third*)
  - Duration of Impulse (*time to peak, to release & total time*)
  - Transformed loads  
(*may require user input of patient configuration and location of load application site*)
  - Direction of Impulse
- **Saves results for reflective practice and contrasting with new efforts**
- **Functionality**
  - Relative performance comparison (*force and moment*)
  - Accurate force measures
  - Operational for some extremity manipulation
  - User-definable gold standards vs literature-based gold standards

## FSTT Benefits

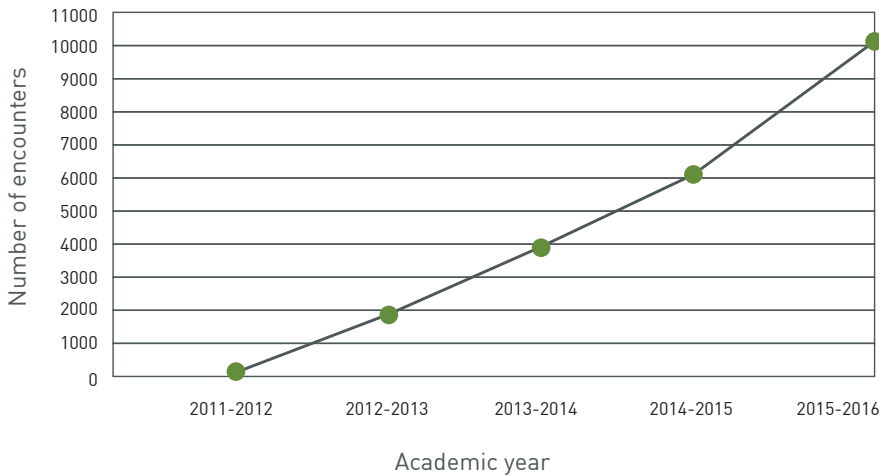
- **Turn Key Operation**
  - Baseline pre load values (*take off force*)
  - Force amplitude (*total peak force & impulse peak force*)
  - Rate of rise in force (*load rate & unload rate*)
  - Duration of Impulse (*time to peak, to release & total time*)
- **Documents student progress in the learning of adjusting and other manual treatment methods**
- **Enhances tutor coaching methods**
  - Objective knowledge of results
  - Enables standards for performance defined by faculty or based on the literature
- **Allows evaluation of procedures to all spinal regions and evaluation of many extremity procedures**

## Optional Functionality available by quote

- Customized screen capture with user institutional logo
- Cervical drop mechanism
- Lumbar drop mechanism
- Research Precision Lumbar Accessories
- Delayed Video Replay System
- Accessories for accurate lumbar load estimations

# Learning Engagements with FSTT™

## Voluntary Learner Education, Outside of Class time (Institutional Enrolment Approx. 740)



Enthusiastic learner engagement with FSTT™ is demonstrated by the sharp increase in voluntary student time committed to practicing of treatment techniques.

Students having difficulty developing skills who use reflection time with FSTT™ have been shown to raise their skill levels with less than one hour of dedicated time in our simulation lab (HEQCO report).



### Warranty and Pricing

Information available upon request.

### †Patent Information

Manipulative treatment training system and mannequin: international patent pending, FSTT™ system, No.2869517

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