Orthodontic Wire Mechanical System Tester

Week 4 Progress Report
Group 7
Scott Michonski, Bethany Lepine, Max Feldman
Work Completed

- National Instruments Hardware
- Program Modifications
- Machining Instructions
After meeting with Michael Holbert we all agreed on using NI technology.

Research was done and the USB-6211 was selected for use.
Work Completed: NI Technology

- USB-6211 multiple input and output module
- Allows for digital output for our motors and analog inputs for our sensors
- 16 analog inputs
- Cost: $650
- Sampling rate of 250kHz
Work Completed: NI Technology

- We will need a power source to allow the use of the USB-6211
- BK Precision DC Power supply
- Allows 0-18V and 0-5A
Work Completed: Program Modifications

- Met with our client and discussed user interface modifications
- User inputs: distance and speed
- Program converts to indices per second
- Measuring data in increments
Work Completed: Machining Instructions

- Started detailing all specifications on how the device will be manufactured
- Grid option on the base will allow the user to change position of linear slides.
- Vertical Linear slide will need to be wall mounted onto the base.
Work Completed: Machining Instructions
Work Completed: Machining Instructions

- Started putting instructions into CADKey
Future Work

- Purchase orders for NI hardware
- User Interface changes need to be incorporated and the motor control must be modified
- Machining Instructions must be finalized and complete drawings in CADKey finished.