The Perfect Gift: Burnt Wood

Introduction
The Laser Engraving System (LES) is a CNC-based laser engraving system. LES is able to:
- Import an image from a user
- Obtain user inputs such as image width and height
- Convert the image to grayscale
- Engrave the image on a piece of wood

User Interface
- Provides maximum control for user
- Uploads image easily
- Allows user to position laser and wood
- Allows user to fire the laser for positioning
- Allows user to pick picture height and width
- Allows user to increase contrast by an adjustable amount
- Displays
  a) image for easy viewing
  b) approximate aspect ratio
  c) estimated time until completion
  d) percentage completed
  e) pixel height and width

Mechanics
Most components in our design are commercially available with only a few pieces that were custom machined. The frame is made from aluminum, which is very sturdy and lightweight.

Results

Jaden Miller and Blaine Cook
jadendmiller@gmail.com
blainewcook@gmail.com

Special Thanks: Donald Cripps, Jolynne Berrett