

Rotational Load

The rotating dynamometer was set up in a Bridgeport milling machine with a agilent power supply to provide a 3.3VDC for excitation of the wheatstone bridge and a voltmeter set up to test the total output voltages from the wheatstone bridges and the individually at the strain gauges. The torque was applied through a torque wrench and one of our capable team members applied a large force to make the moment [see figure 1]. The torque wrench attaches to a hex piece at the bottom of the dynamometer [see figure 2 for example].

The readings recorded showed outputs differential on the scale of microvolts. The values were about 8 to 26 microvolts differential which is 1000 times less than what was expected.

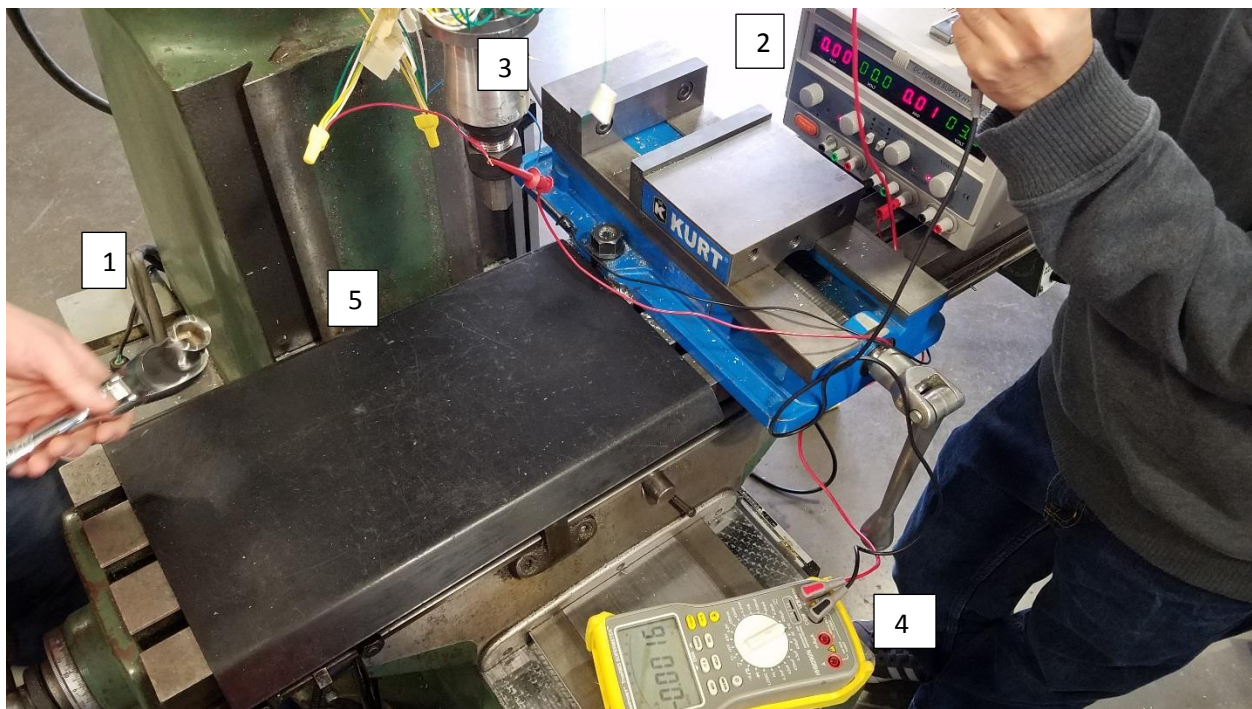


Figure 1

1. Torque wrench and capable team member
2. Agilent power supply
3. Rotating Dynamometer
4. Voltmeter
5. Bridgeport machine

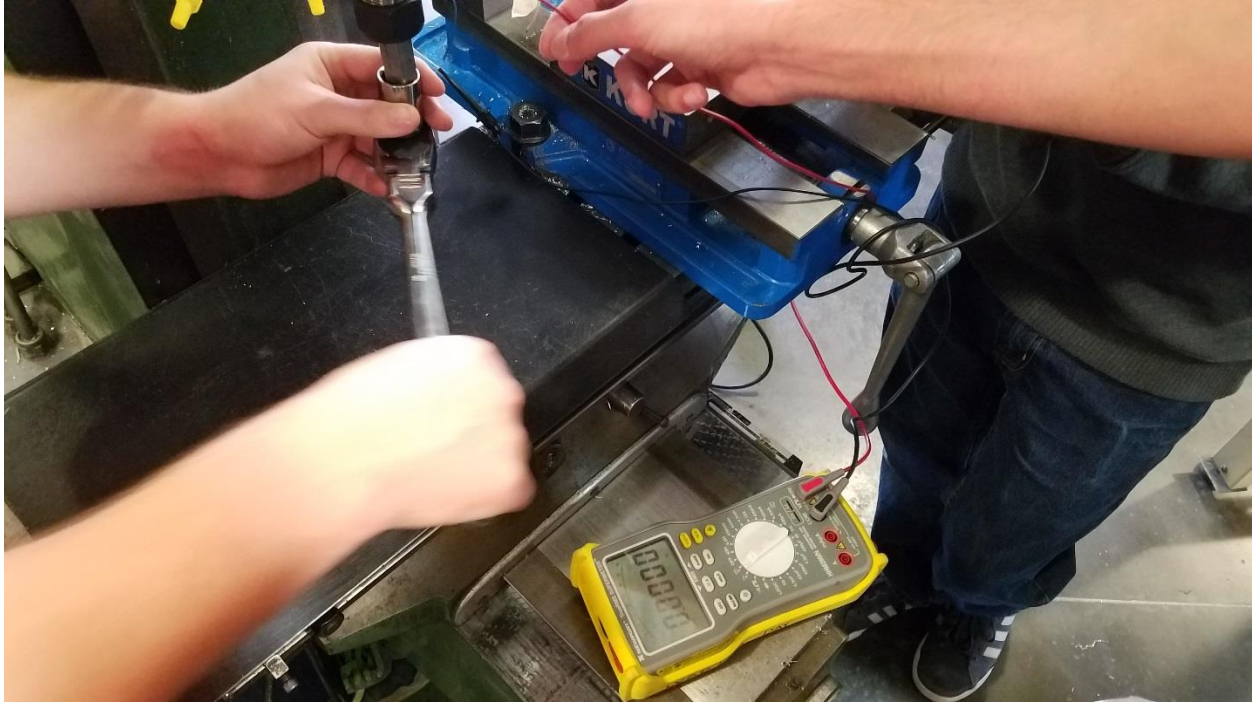


Figure 2