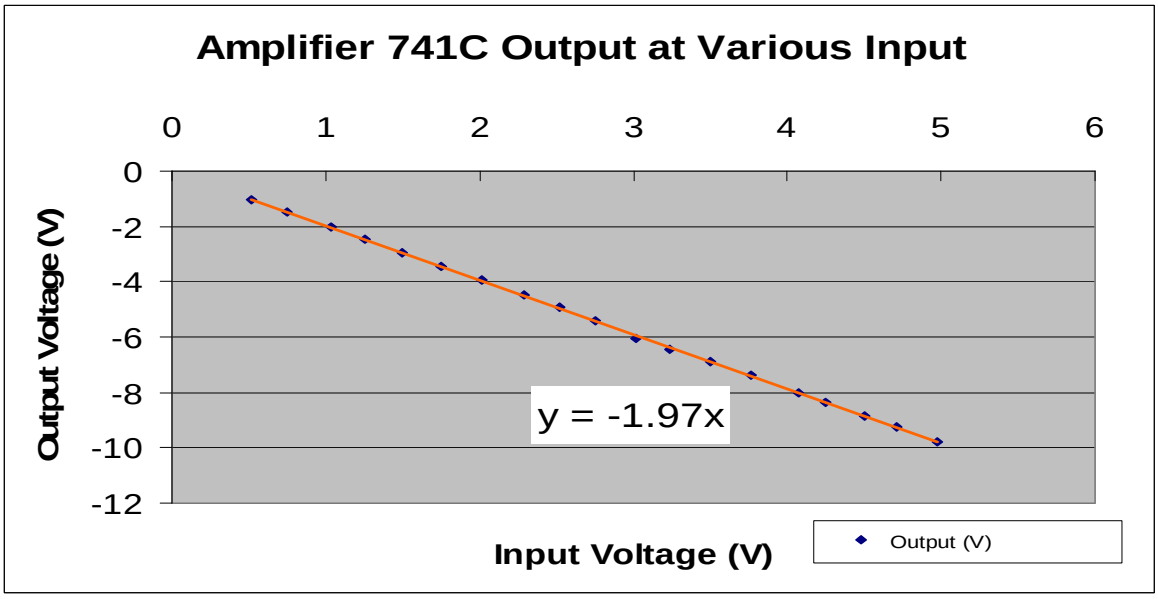

Figure 1- Inverting amplifier used with R1 being 56 kΩ and R2 being 110 kΩ. Uncertainty for the input and output voltage was ± 0.01V for measurements greater than 1 V and ±0.001 V for measurements less than 1 V. Expected gain is 1.96.

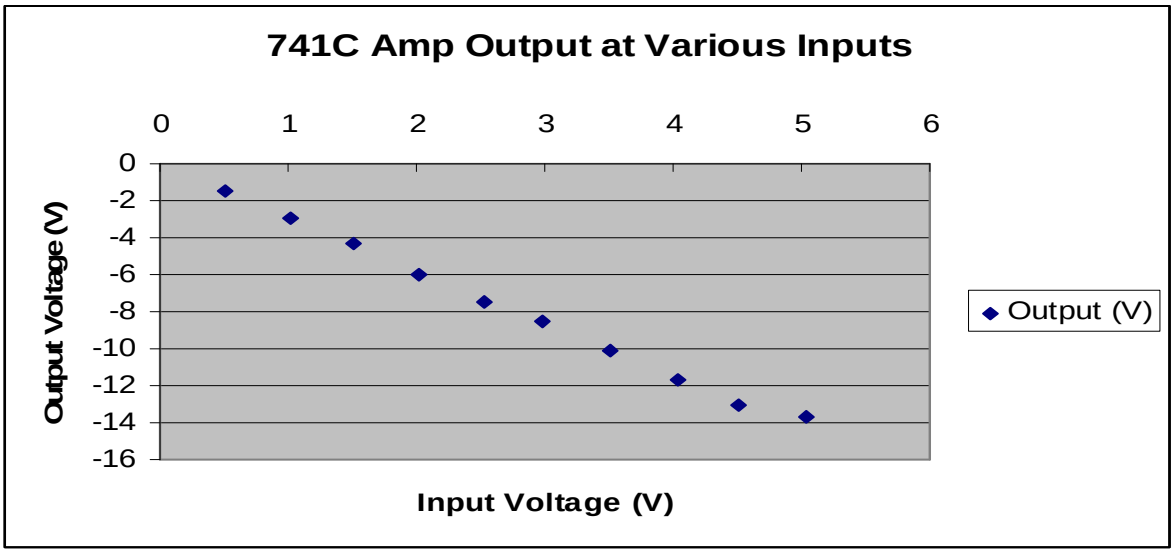

Figure 2 - Inverting amplifier used with R1 being 56 kΩ and R2 being 160 kΩ. Uncertainty for the input and output voltage was ± 0.01V for measurements greater than 1 V and ±0.001 V for measurements less than 1 V. Expected gain is 2.86.

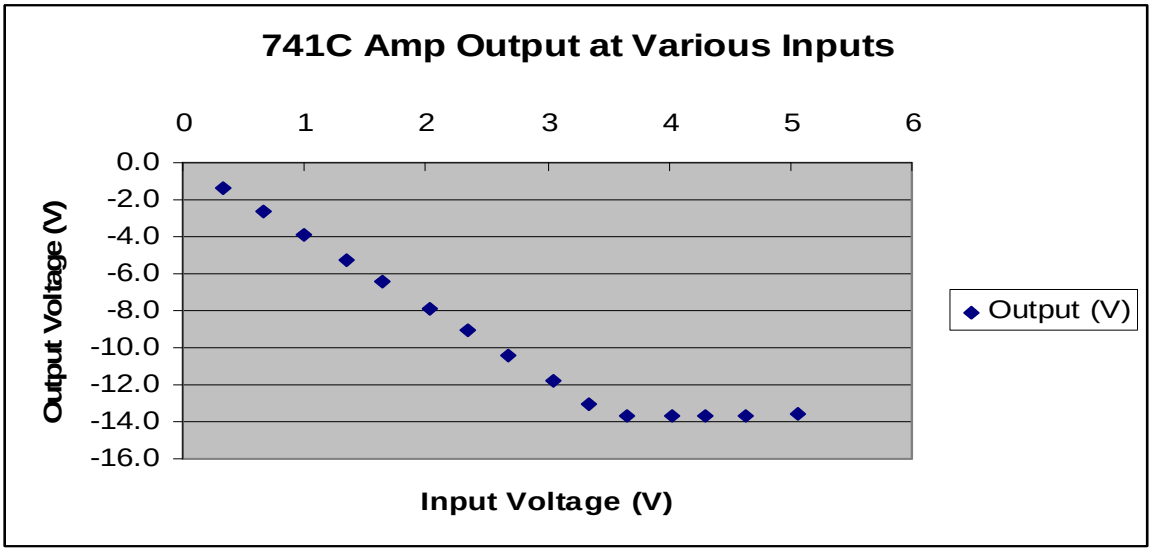

Figure 3 - Inverting amplifier used with R1 being 56 kΩ and R2 being 220 kΩ. Uncertainty for the input and output voltage was ± 0.01V for measurements greater than 1 V and ±0.001 V for measurements less than 1 V. Expected gain is 3.93.

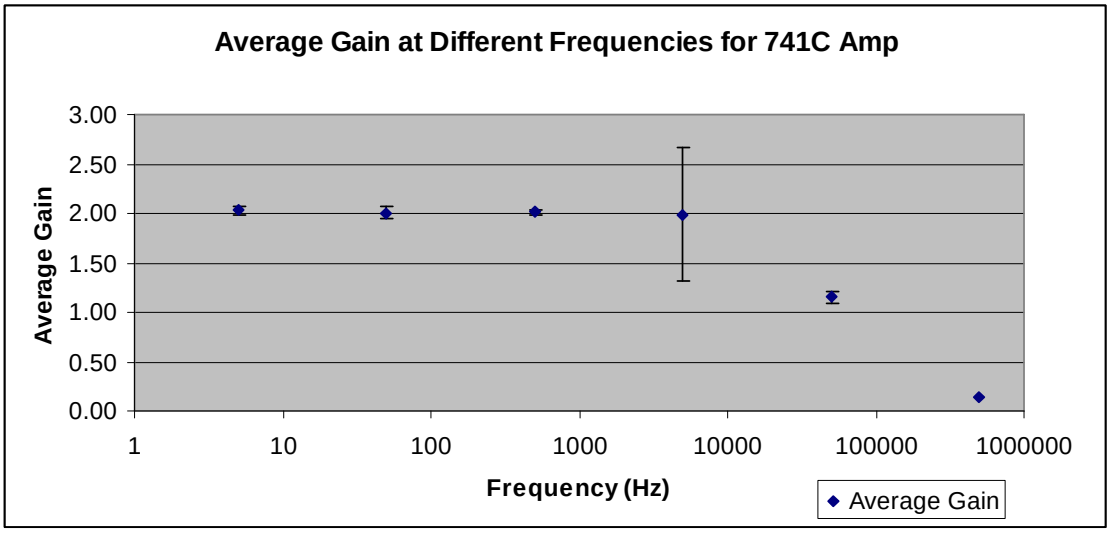

Figure 4 – Non-inverting amplifier used with R1=R2=56 kΩ. Uncertainty for the average gain was the standard deviation of the different gain values for different input voltages. The uncertainty in the frequency was around 1% of the value. Expected gain is 2.00. BK Precision 4011A Function Generator used to create pulse.

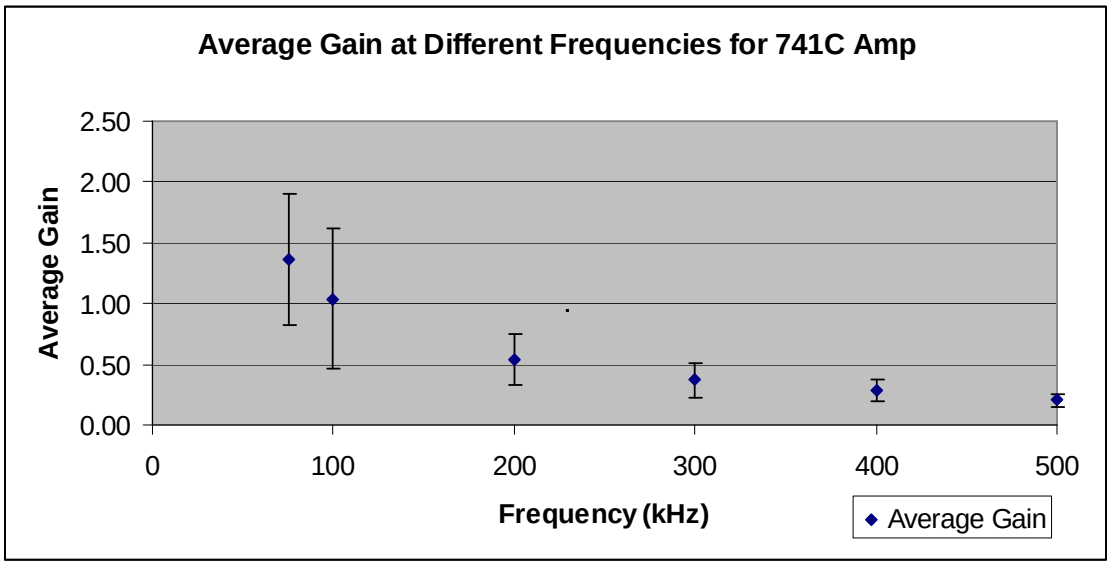

Figure 5 - Non-inverting amplifier used with R1=R2=56 kΩ. Uncertainty for the average gain was the standard deviation of the different gain values for different input voltages. The uncertainty in the frequency was around 1% of the value. Expected gain is 2.00. BK Precision 4011A Function Generator used to create pulse.