# Experiment 2.2
# Wheatstone Bridge

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October 23, 2019

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# 1 Objectives

# 2 Experimental Results

As labeled in Figure 12 [1], the following values were chosen:

$$\begin{aligned} E &= 12.0V \\ R_1 &= 100\Omega \\ R_2 &= 910\Omega \\ R_3 &= 0-200\Omega \\ R_x &= 960.7\Omega \end{aligned}$$

The $200\Omega$ potentiometer was chosen because the bridge is balanced when it has a resistance of $106\Omega$, allowing for maximal variation.

| Force ($N$) | Voltage ($V$) |
|---|---|
| 1.226 | 0.167 |
| 1.275 | 0.176 |
| 1.271 | 0.182 |
| 1.238 | 0.180 |
| 1.245 | 0.176 |

Table 1: Force versus Voltage across bridge

# 3 Discussion

# 4 Conclusion

# References

[1] N. Dimopoulos, F. Gebali, *Laboratory Manual: ECE 250, Linear Circuits I (Edition 4)*, University of Victoria, Victoria, B.C, 2018.