

# ELC 2137 Lab #3: Adders

Sebastian Lopez and Megan Gordon

February 6, 2020

## Summary

In this lab we developed circuits that implement a given logic function, described the operation of half, full, and ripple adders, and we developed a moderately complex circuit on a breadboard using standard electrical parts. We also tested and verified the operation of each circuit.

## Q&A

Table 1: Half Adder Truth Table

A	B	C	S	Decimal
0	0	0	0	0
0	1	0	1	1
1	0	0	1	1
1	1	1	0	2

1. Which gates could we use for combining the carry bits?
2. Which one should we use and why?

## Results

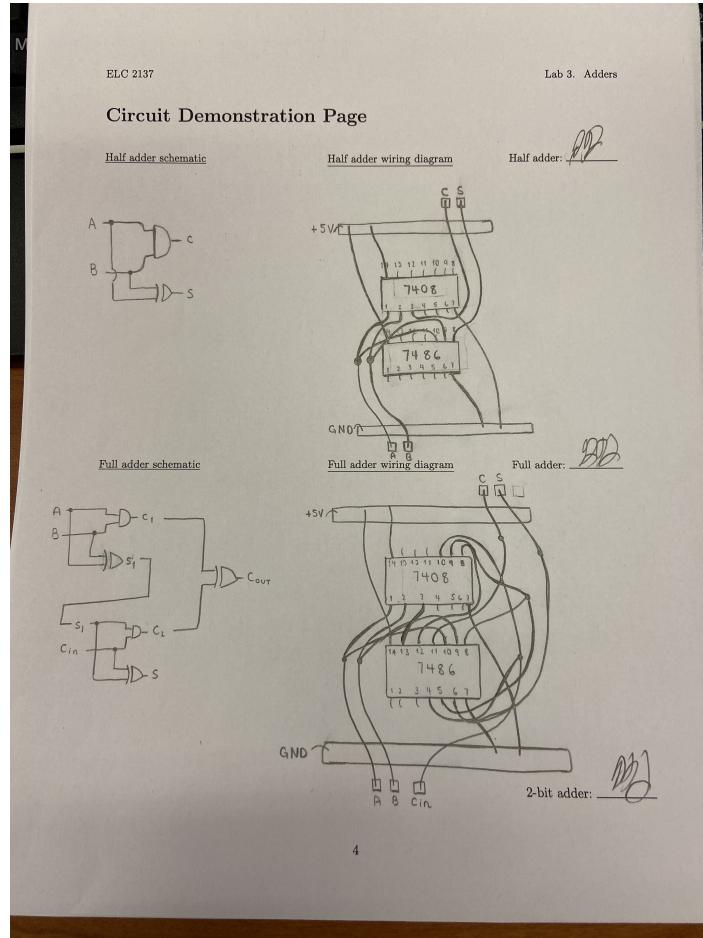


Figure 1: This is the Circuit Demonstration Page.

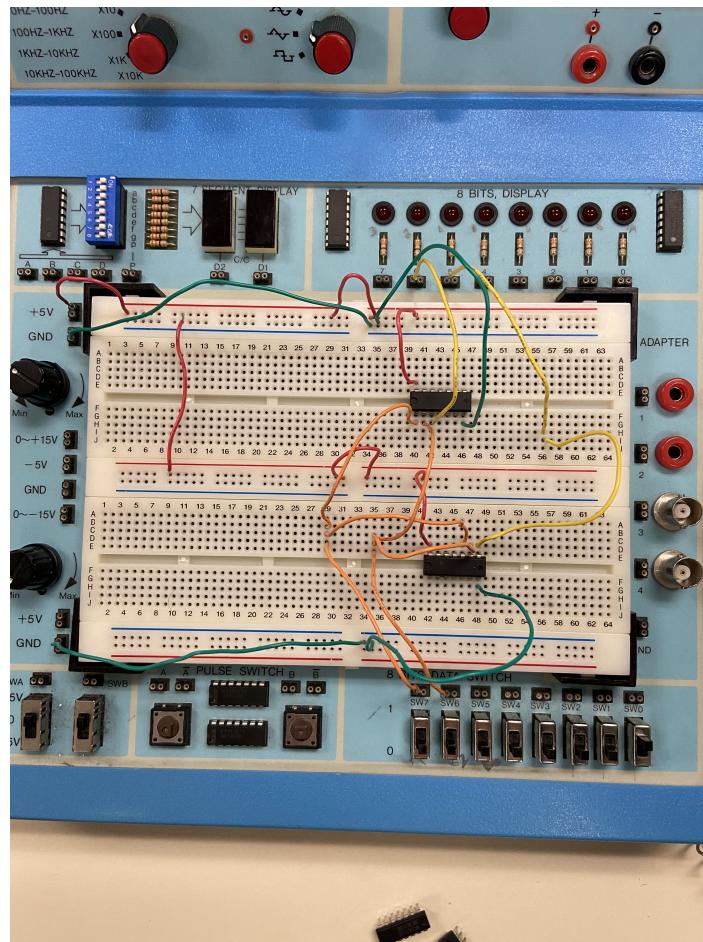


Figure 2: This is the Half Adder.

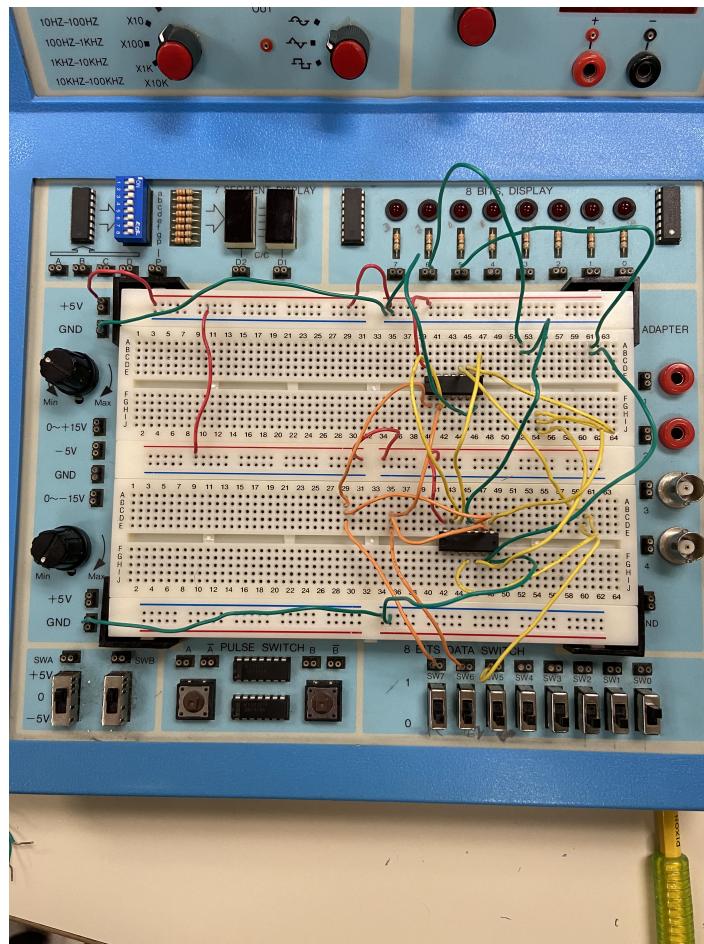


Figure 3: This is the Full Adder.

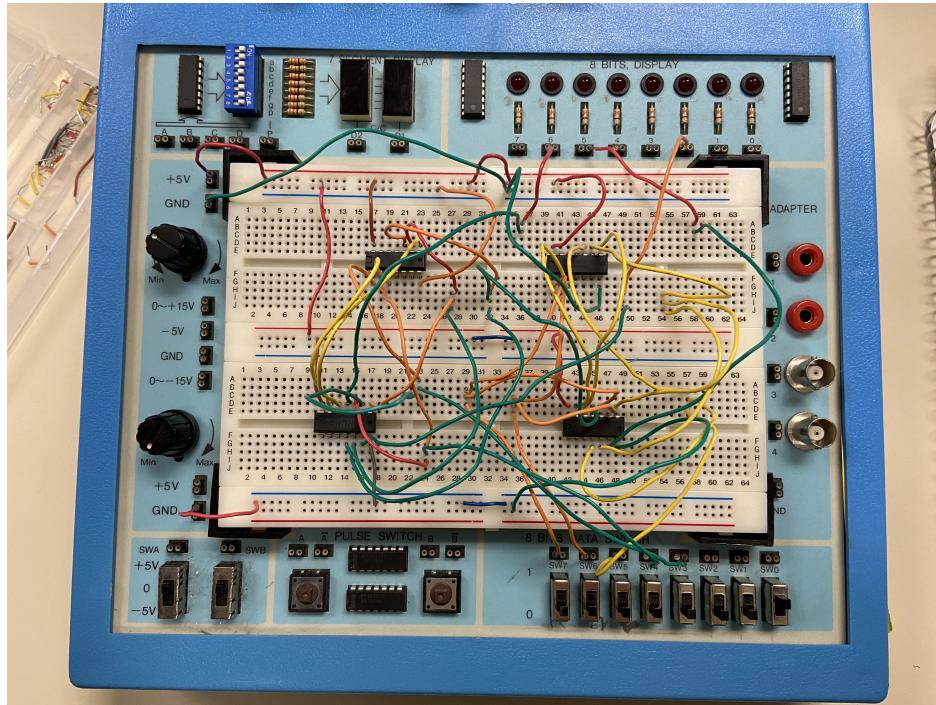


Figure 4: This is the 2-bit Adder.