

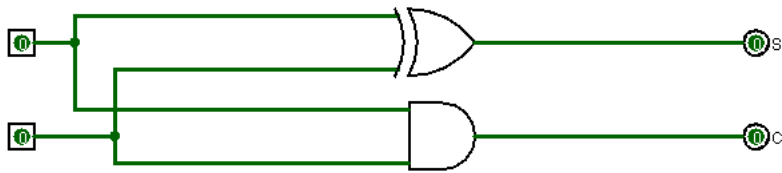
DD Lab 3 Assignment

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2020A3PS0435P

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1 Adder/Subtractor circuit

1.1 Half adder circuit



1.2 Full adder circuit

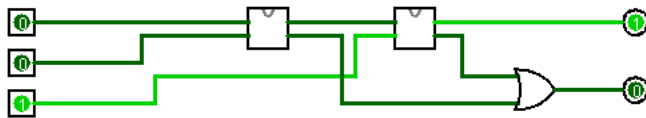


Figure 1: The boxes in this circuit are the half adders

1.3 4 bit adder

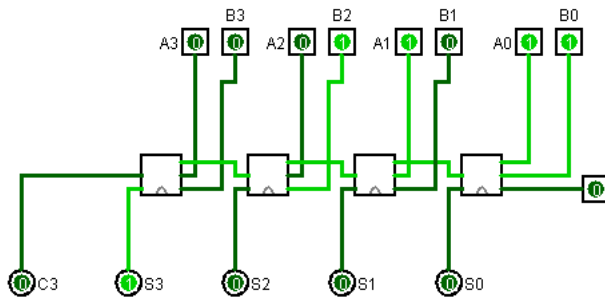


Figure 2: The boxes in this circuit are the full adders

1.4 Adder/subtractor circuit

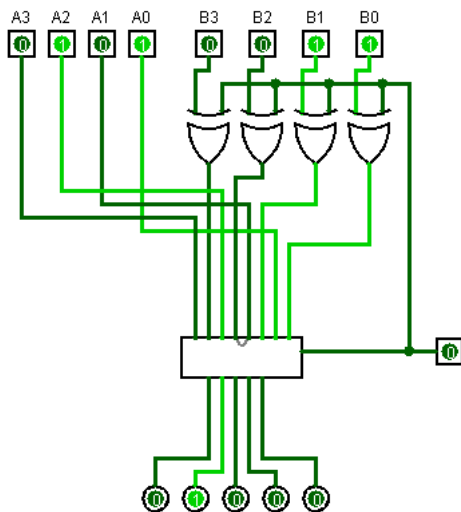
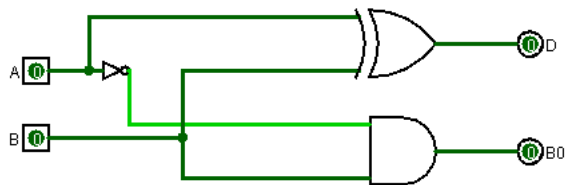


Figure 3: The box in this circuit is the 4 bit adder

2 Subtractor circuits

2.1 Half Subtractor



2.2 Full subtractor

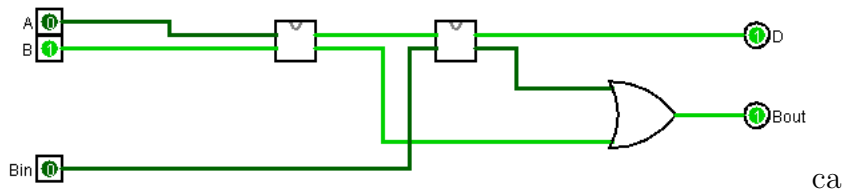


Figure 4: The box in the circuit is the half subtractor