Adder

Praktikum Rangkaian Digital

Ilmu Komputer IPB

2019

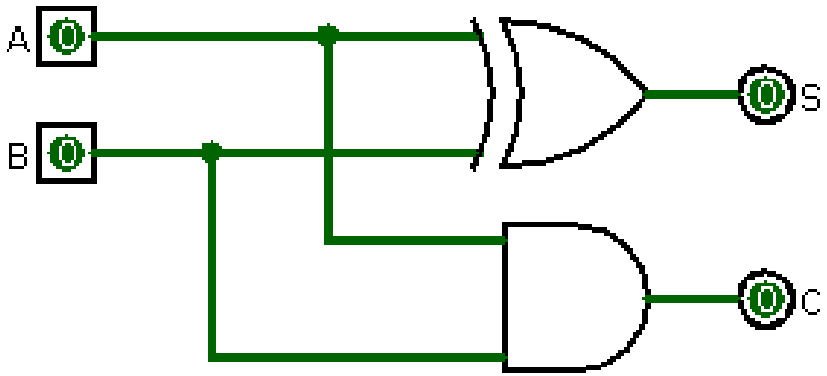
Half Adder

Half Adder

- $[C_o, S] = A + B$
  - masukan: A, B
  - keluaran: *carry out*, *sum*

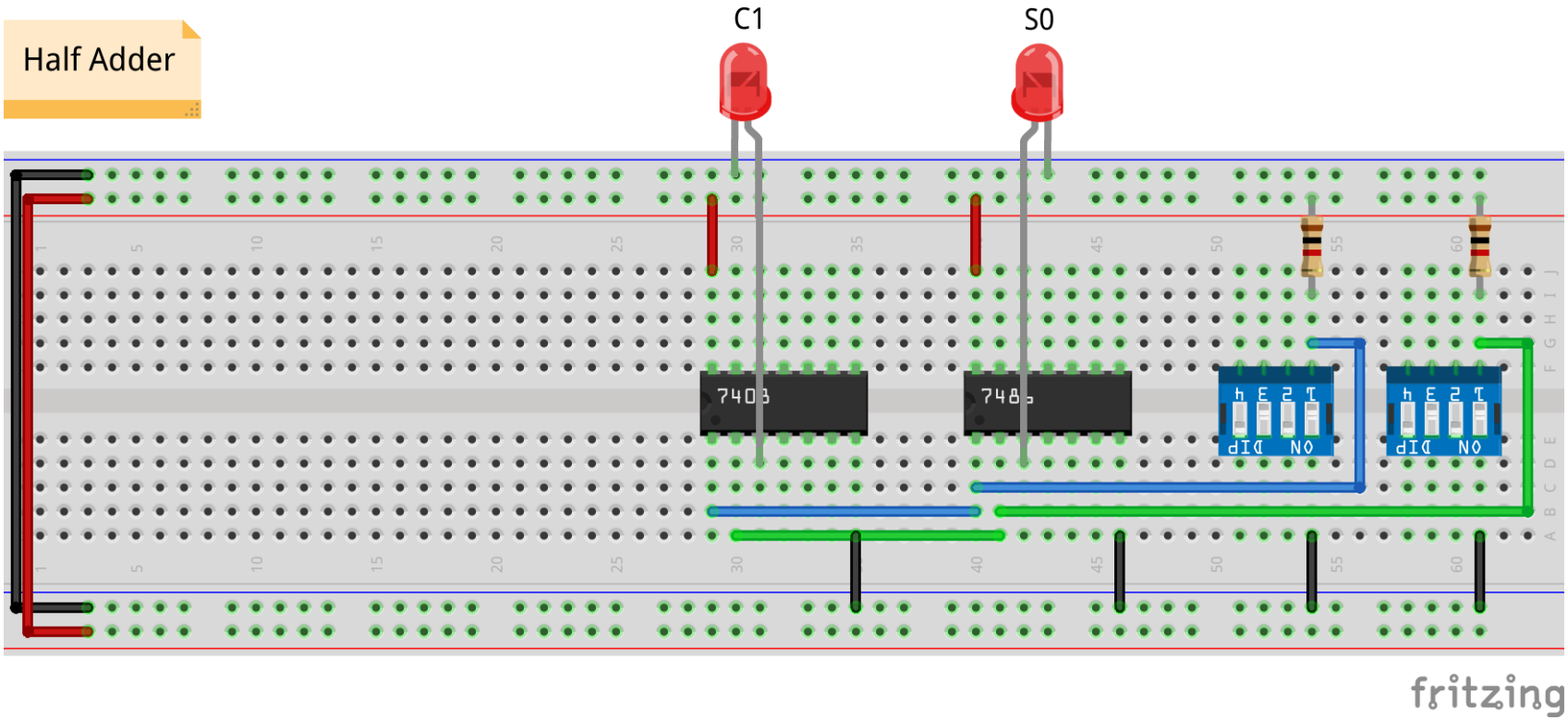
A	B	C_o	S
0	0	0	0
0	1	0	1
1	0	0	1
1	1	1	0

Simulasi



Gambar 1: Half adder

Implementasi



Gambar 2: Half adder breadboard

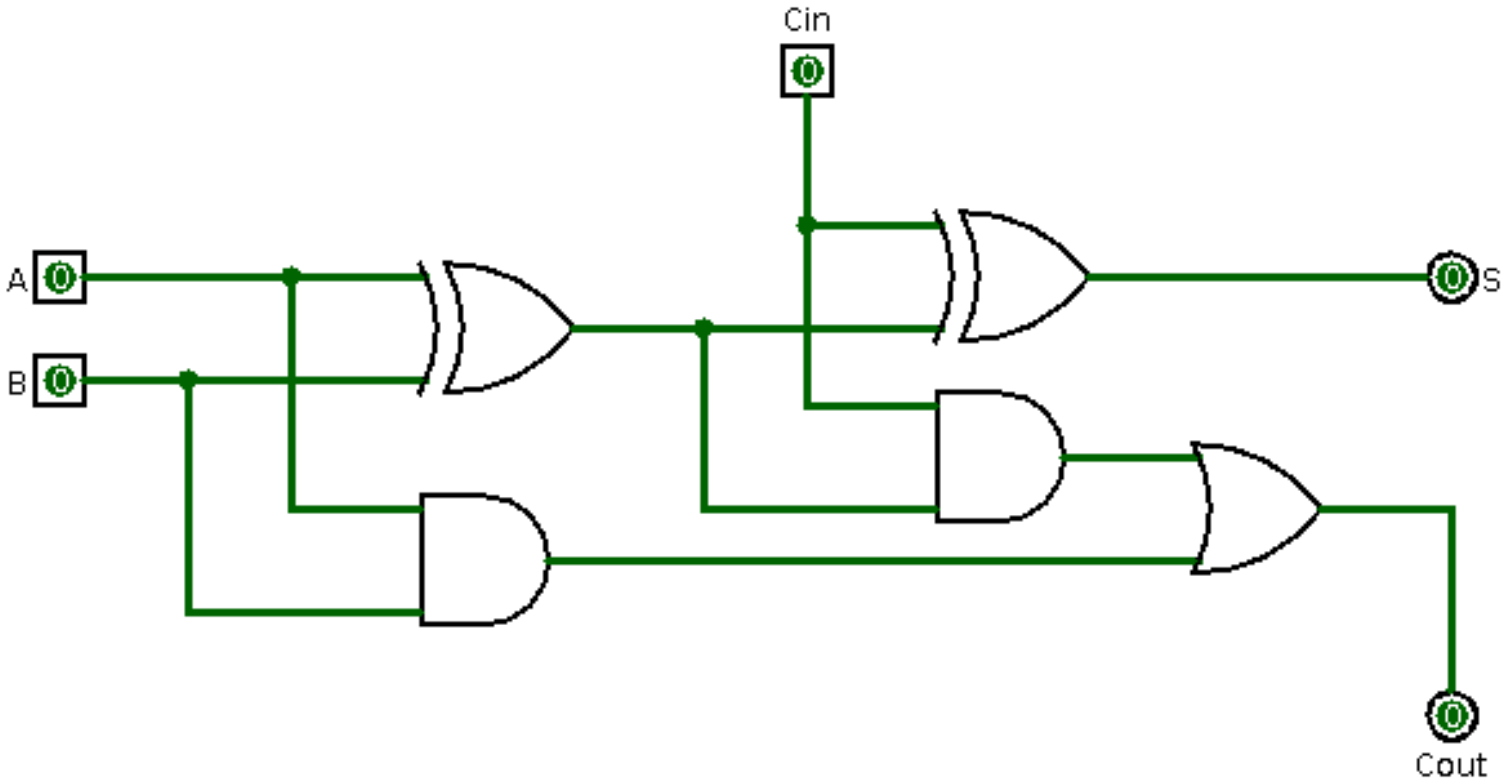
Full Adder

Full Adder

- $[C_o, S] = C_i + A + B$
  - masukan: *carry in*, A, B
  - keluaran: *carry out*, *sum*

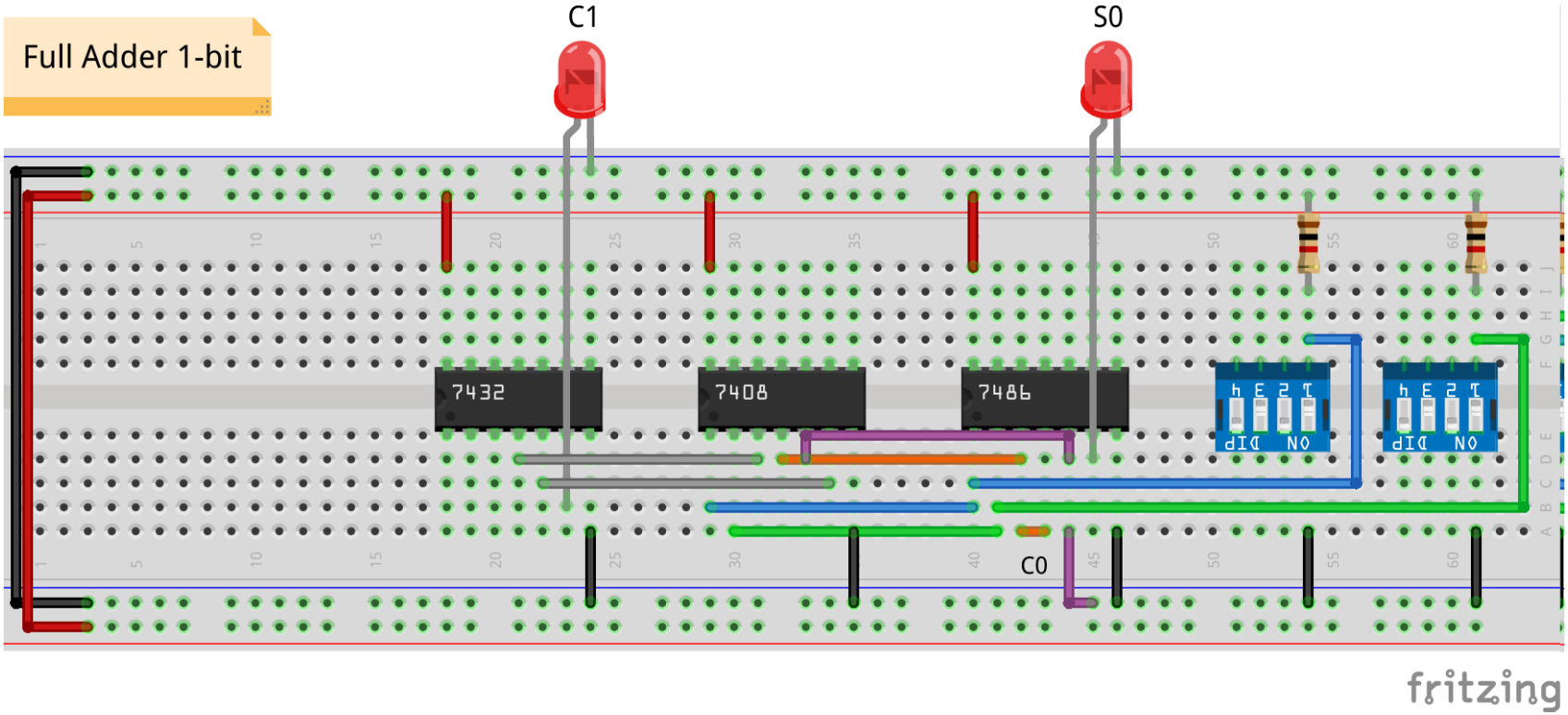
C_i	A	B	C_o	S
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	1	0
1	0	0	0	1
1	0	1	1	0
1	1	0	1	0
1	1	1	1	1

Simulasi



Gambar 3: Full adder

Implementasi



Gambar 4: Full adder breadboard

Tugas

Full Adder 2-bit

- Rancang rangkaian *full adder* 2-bit pada Logisim
  - dinilai langsung oleh asprak pada saat praktikum