

# ELEMENTOS DE SISTEMA

# PROJETO B

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## PARTICIPANTES

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## PROPOSTA

O projeto B consiste na montagem de uma porta lógica NOT com circuitos integrados, mais precisamente *XOR* :CD4070 e *OR* :HC4075 , a fim de montar a seguinte expressão lógica:

$$Q = \bar{A} + B + C$$

### Materiais:

1x Protoboard

1x baterias 9V

1x LED colorido

Circuito integrado CD4070

Circuito integrado HC4075

**Tabela Verdade:**

| A | B | C | Q |
|---|---|---|---|
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

Diagrama de Blocos Lógicos :

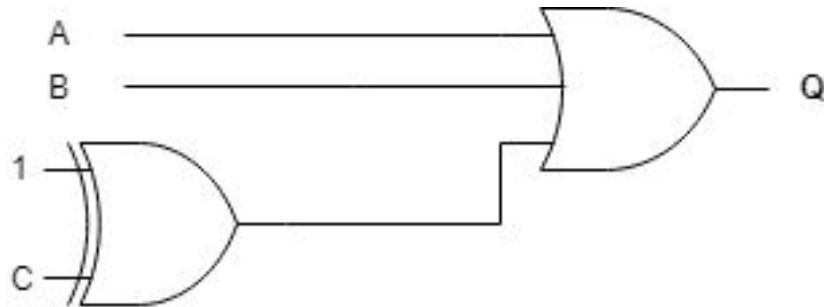
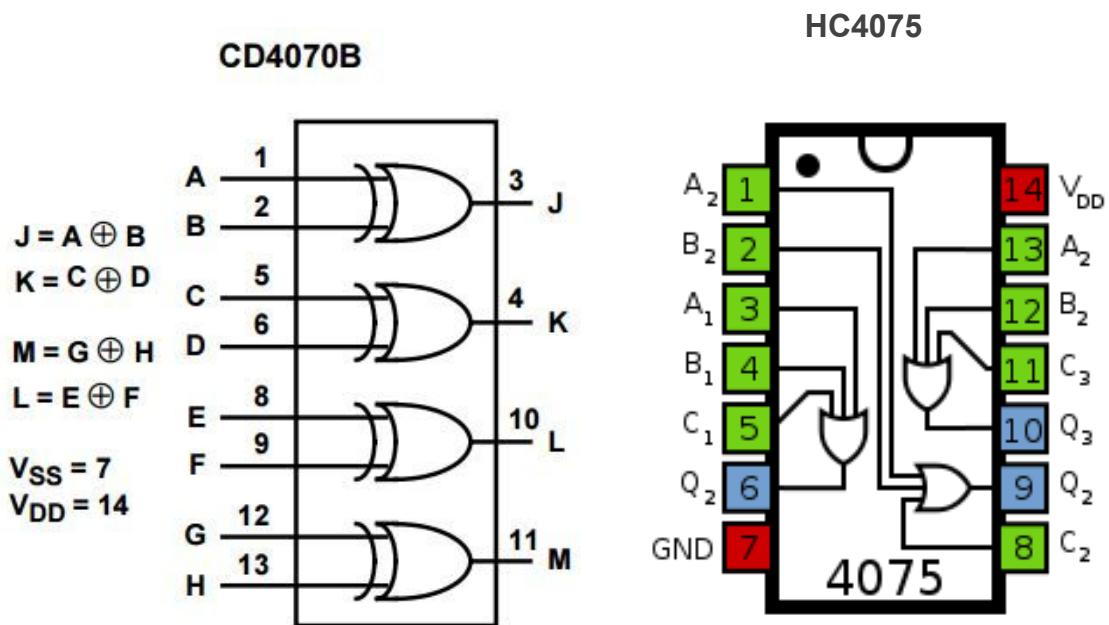
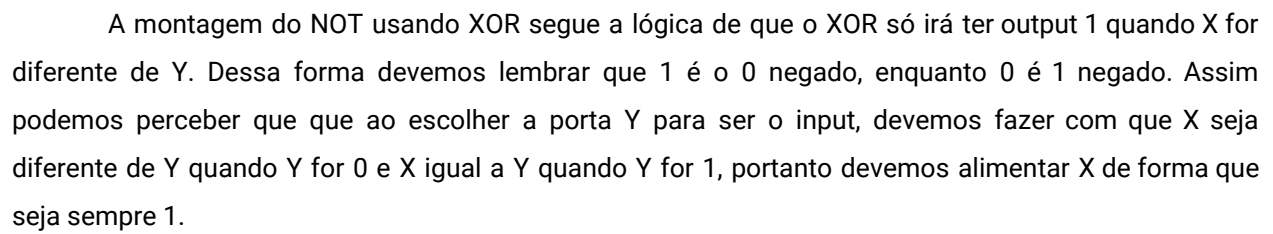


Diagrama Elétrico/Montagem



Montagem de NOT utilizando XOR:



A breadboard circuit featuring a 555 timer IC, an LED, and various resistors. The circuit is powered by a 9V battery connected to the positive and ground rails. The 555 timer is configured with its VCC pin to the positive rail, GND pin to the ground rail, and its output pin (pin 14) connected to the anode of an LED. The LED's cathode is connected to the ground rail. A 10k resistor is connected between the output pin and the ground rail. The breadboard is populated with several resistors of different values, including a 10k resistor, a 1k resistor, and a 100k resistor. The circuit is built on a standard white breadboard with red and blue power rails.

## **Divisão do trabalho:**

### **Montagem:**

-Guilherme Schoueri, Lucas Vaz, Henrique Guazzelli

### **Circuito RTL(Desenho):**

-Arthur Olga, Juan Garcia

### **Relatório:**

Todos