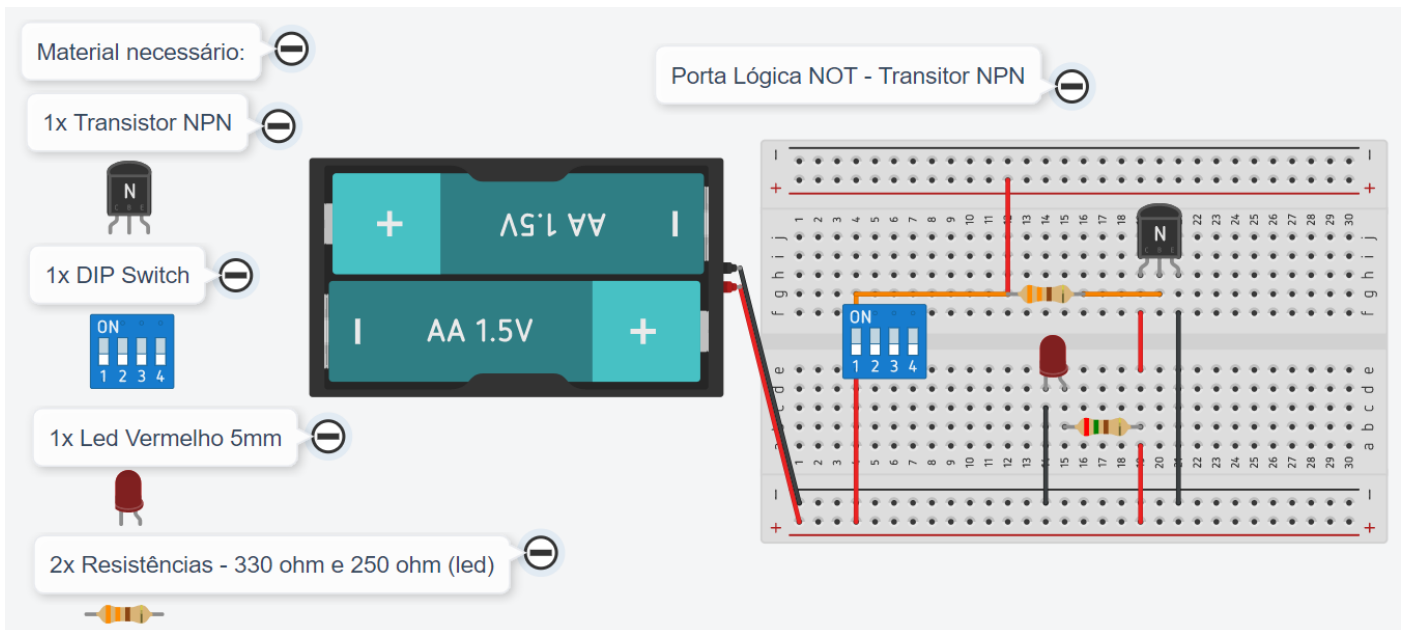


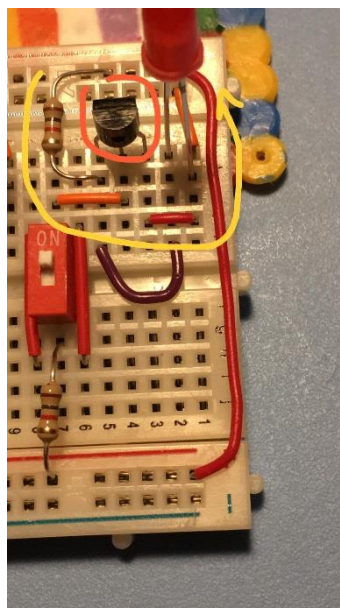
2.1. PORTAS LÓGICAS

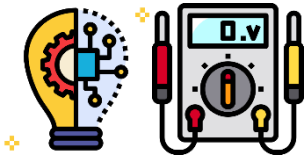
COM CIRCUITOS ELETRÓNICOS COM TRANSÍSTORES NPN

NOT :



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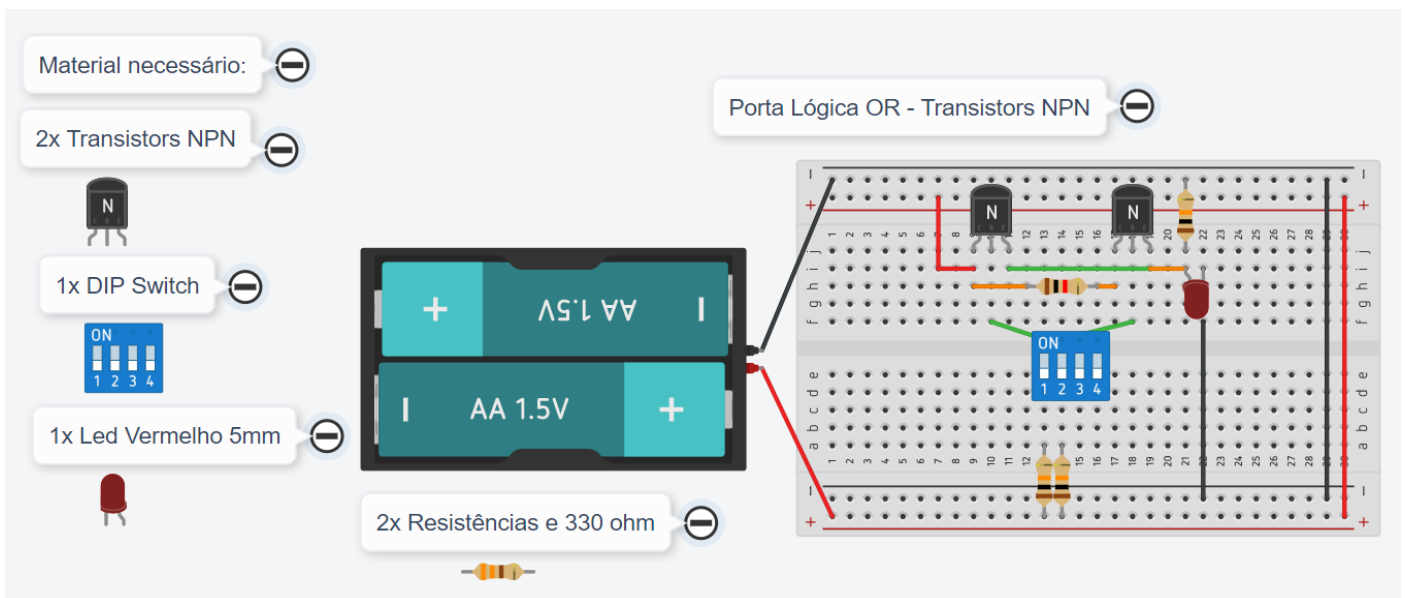




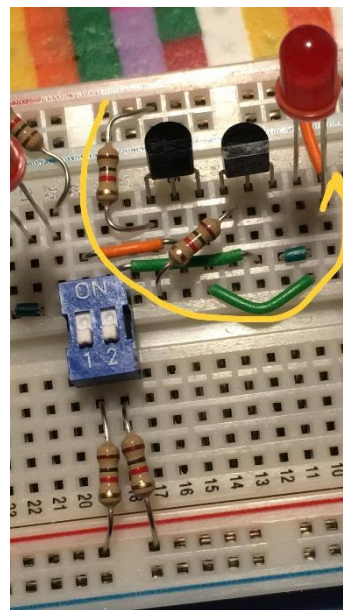
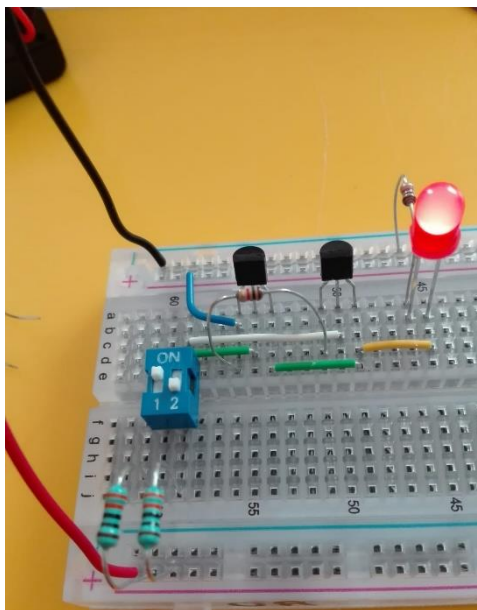
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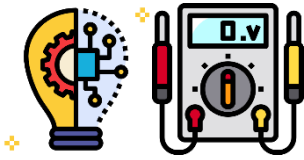
COM CIRCUITOS ELETRÓNICOS COM TRANSÍSTORES NPN

OR:



Tinkercad: <https://www.tinkercad.com/things/bmbloDyiaE9>

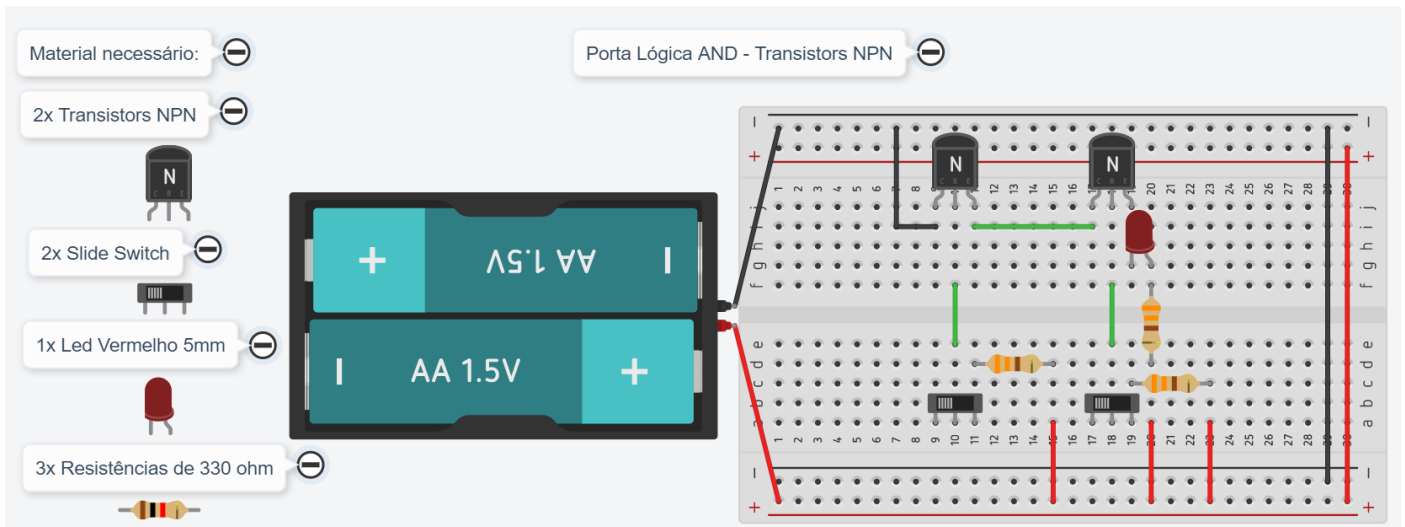




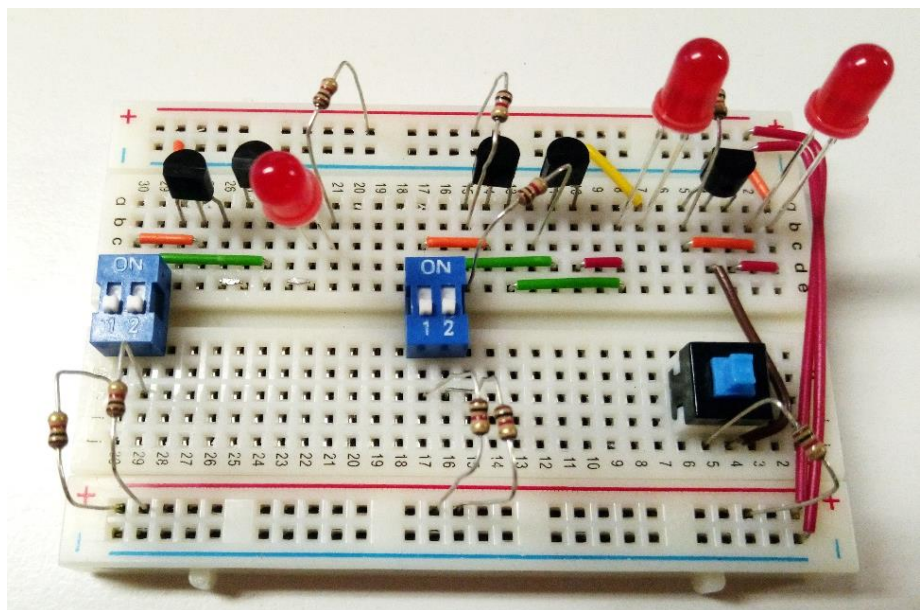
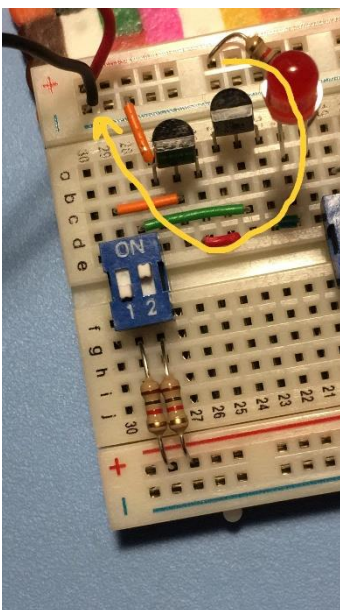
2.3. PORTAS LÓGICAS

COM CIRCUITOS ELETRÓNICOS COM TRANSÍSTORES NPN

AND:



Tinkercad: <https://www.tinkercad.com/things/e7Dj8wwkMQK>



AND, OR, NOT – com transístores NPN