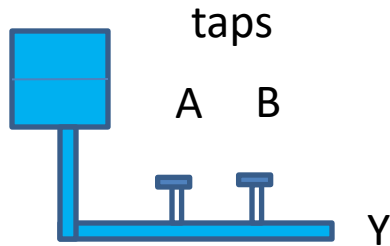


How to built a digital Gate?

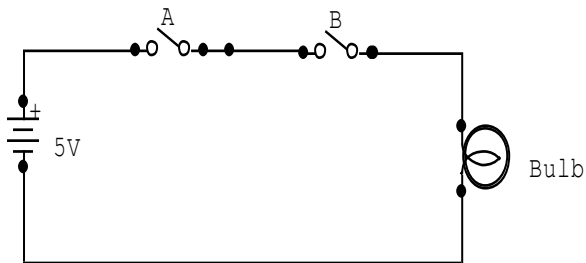
Analogy



AND GATE

If A= on , AND B=on , Y has liquid
Else Y has no liquid

Use this insight to build an AND gate
Electrical Analogy



A	B	Y= A*B
0	0	0
0	1	0
1	0	0
1	1	1

Taps A & B Like switches

Y= Bulb,
0= off
1= ON= Glow

Switches

A&B

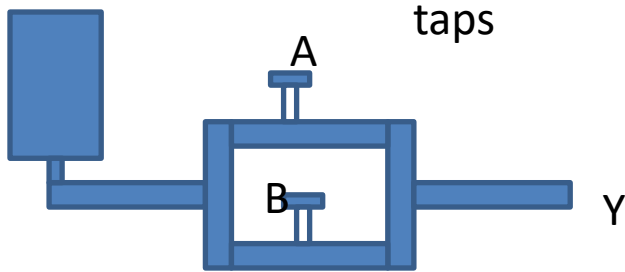
0= off= open

1= ON= close

Bulb Y is ON if A AND B are ON , else Y is off

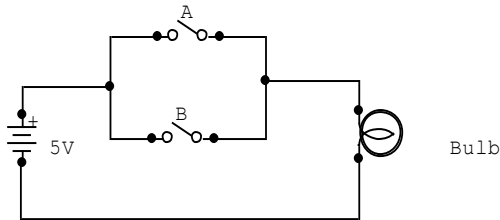
OR GATE

Analogy



If A= on , OR B=on , OR both on:
Y has liquid
Else Y has no liquid

Use this insight to build an OR gate
Electrical Analogy



Taps A & B Like switches

Y= Bulb
off= off=0
Glow = ON= 1

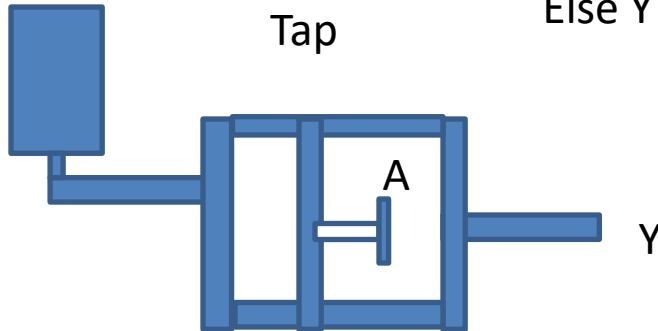
Switches A,B
0= open =off
1= close = On

A	B	Y= A+B
0	0	0
0	1	1
1	0	1
1	1	1

NOT GATE

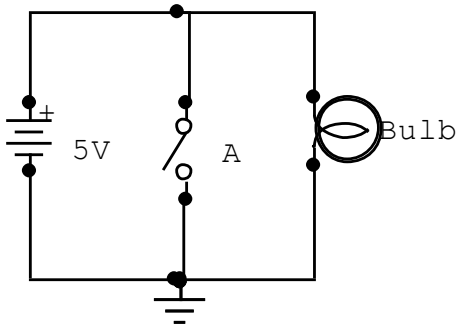
Analogy

If A = on = 1, no liquid, Y = 0
Else Y has no water



Use this insight to build an OR gate
Electrical Analogy

Tap A Like switch



A	Bulb/Y
0	1
1	0

Bulb Y is ON if A = 0 else Y is off