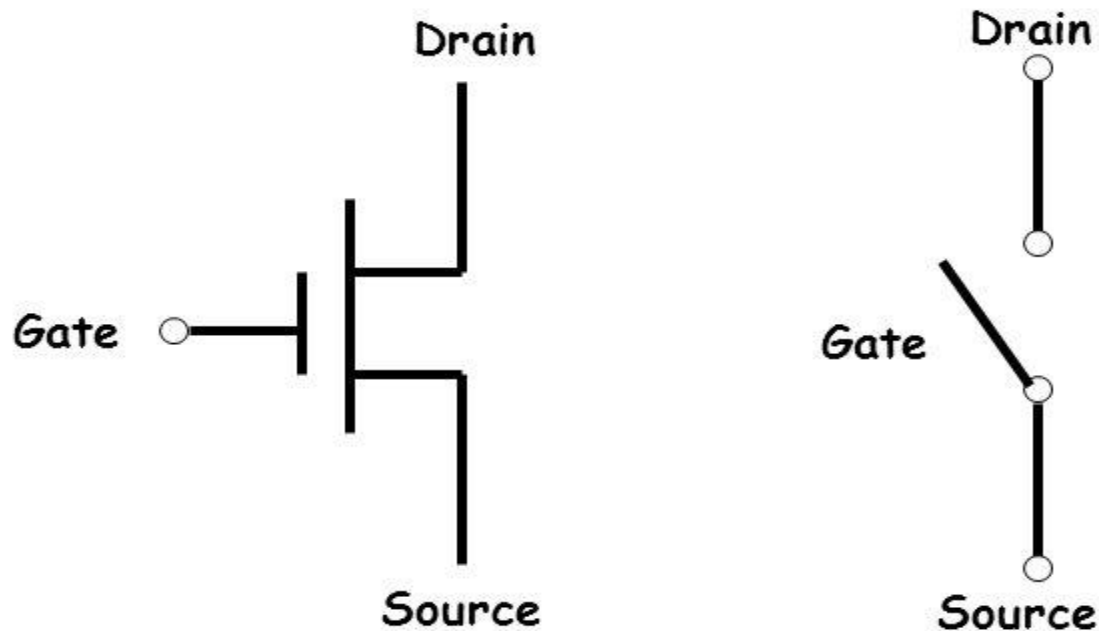




William
Shockley,
Walter
Brattain and
John Bardin
made the first
transistor in
1947



Transistor as a Switch



- The voltage on the gate decides if the switch will be open (*i.e.*, "OFF") or closed (*i.e.*, "ON")

AND



Inputs

Output

A	B	C
0	0	0
0	1	0
1	0	0
1	1	1

OR

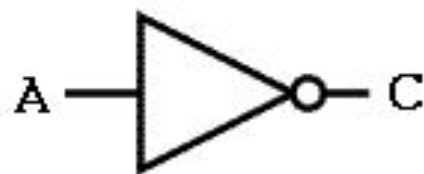


Inputs

Output

A	B	C
0	0	0
0	1	1
1	0	1
1	1	1

NOT



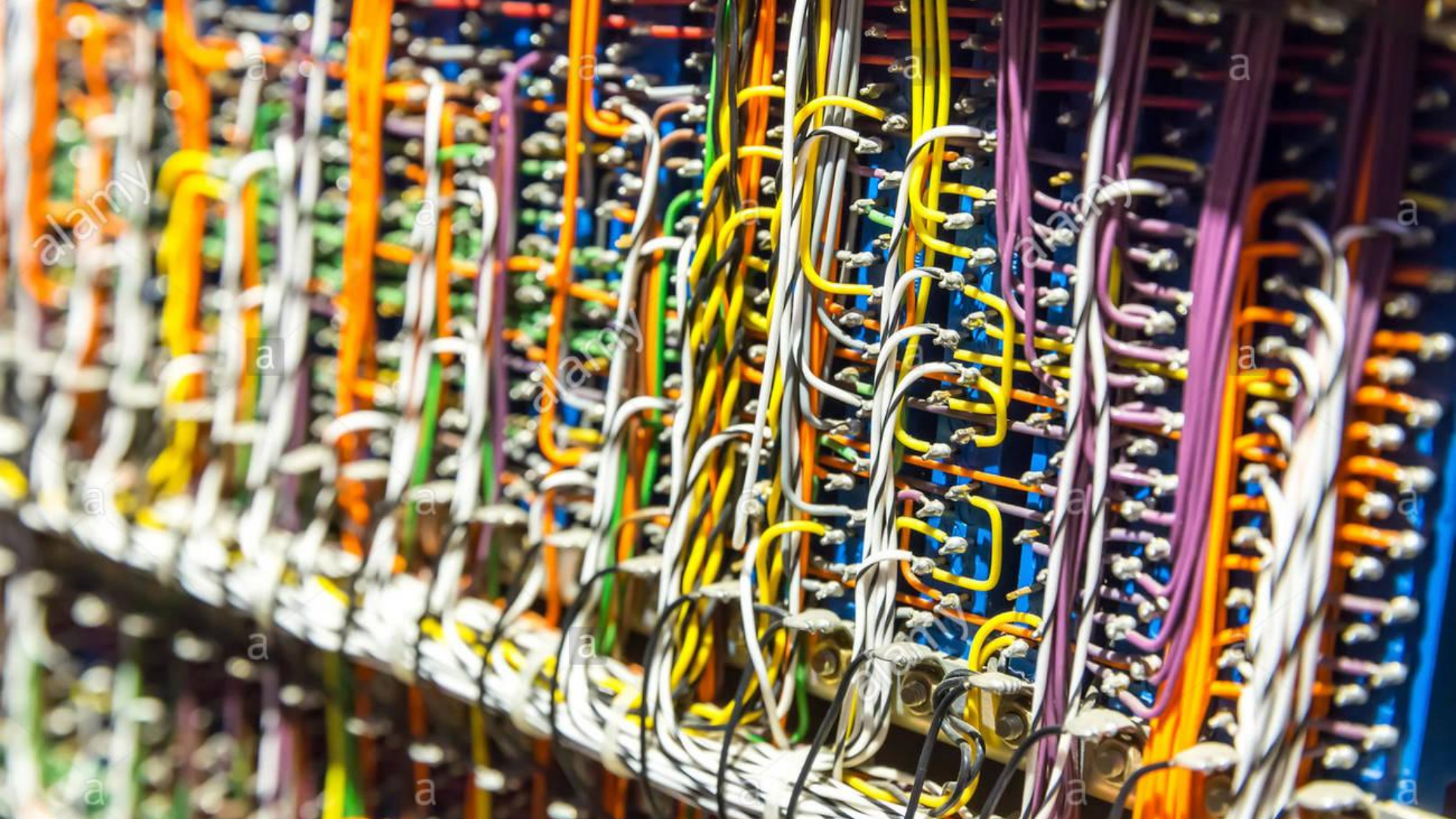
Input

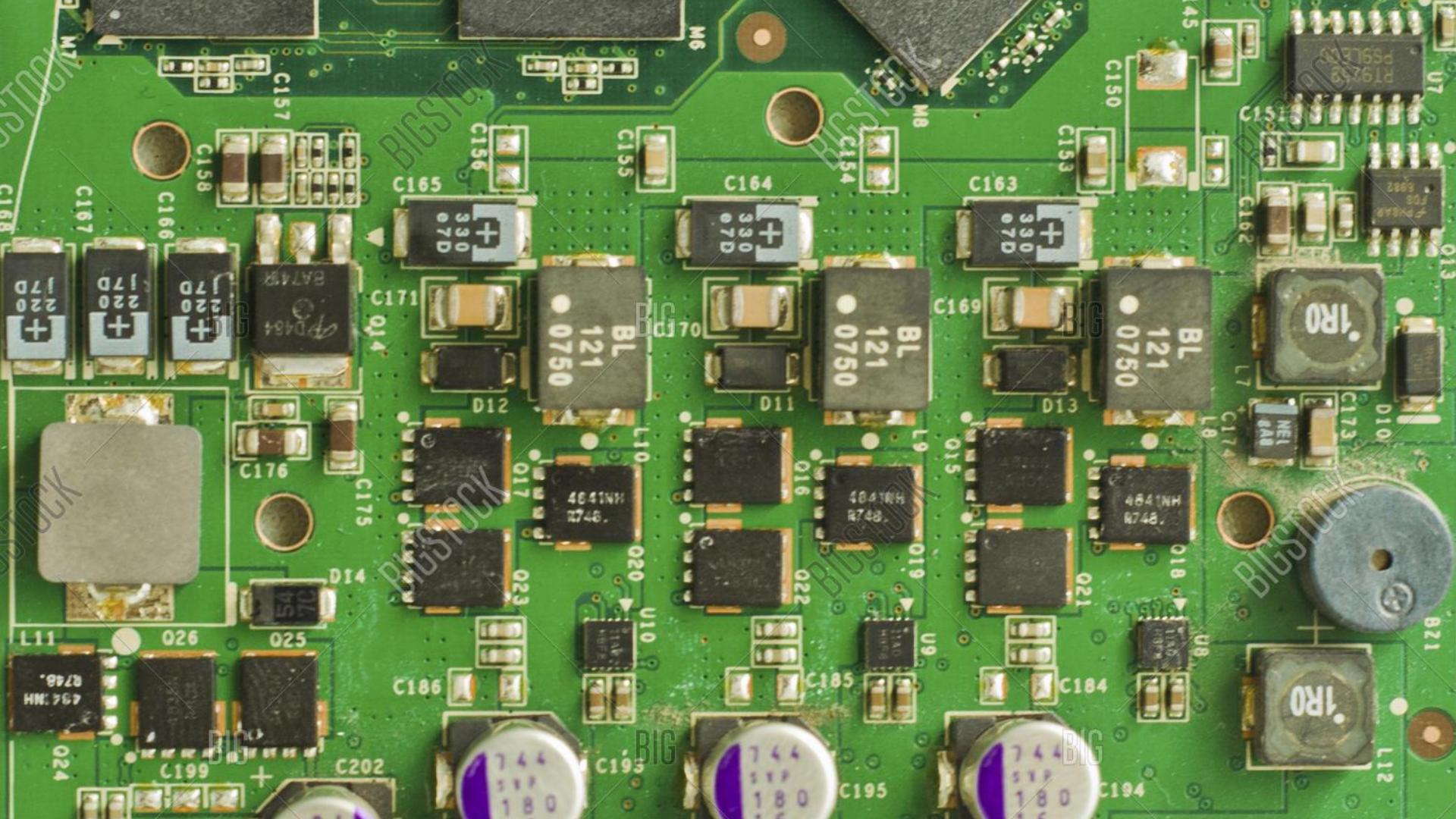
Output

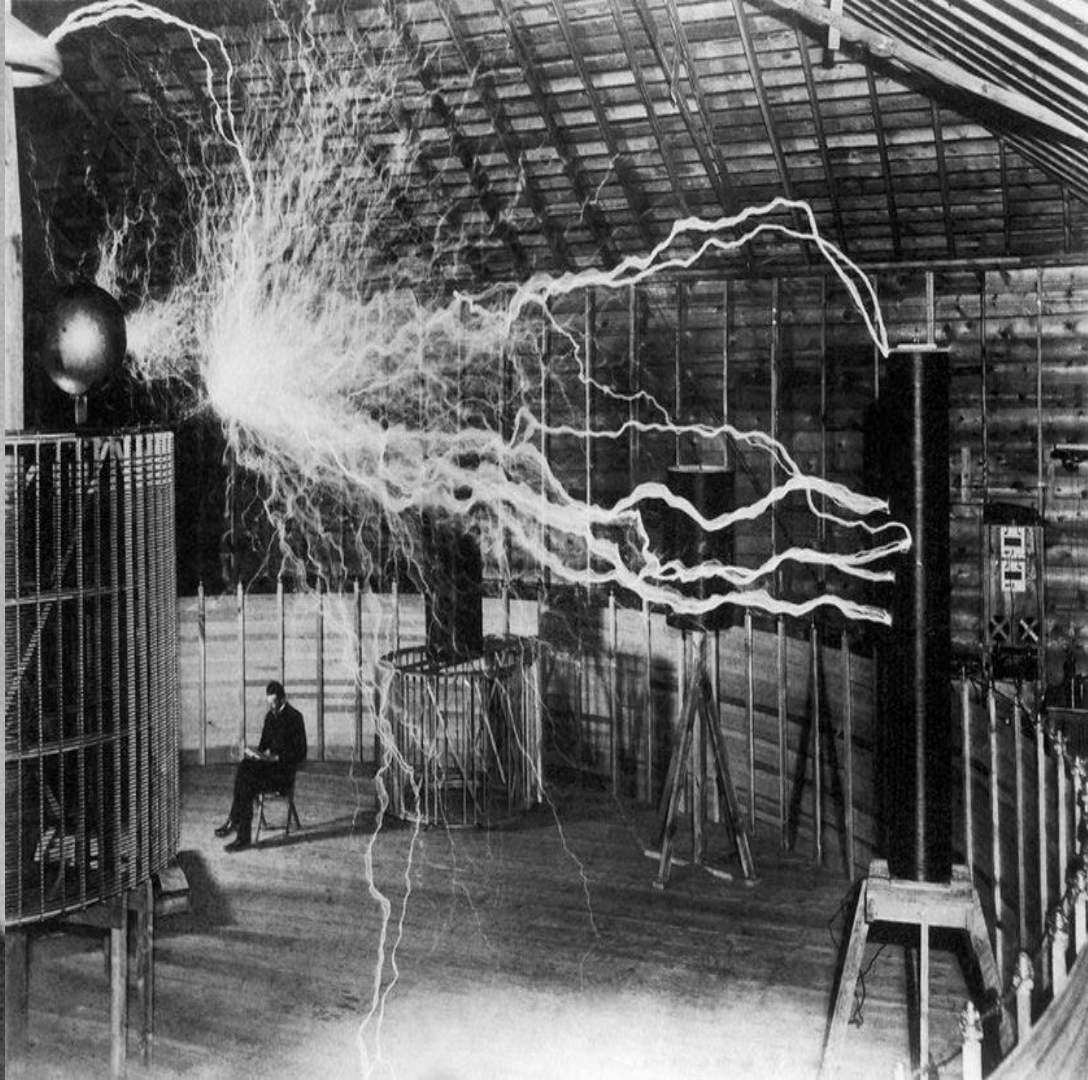
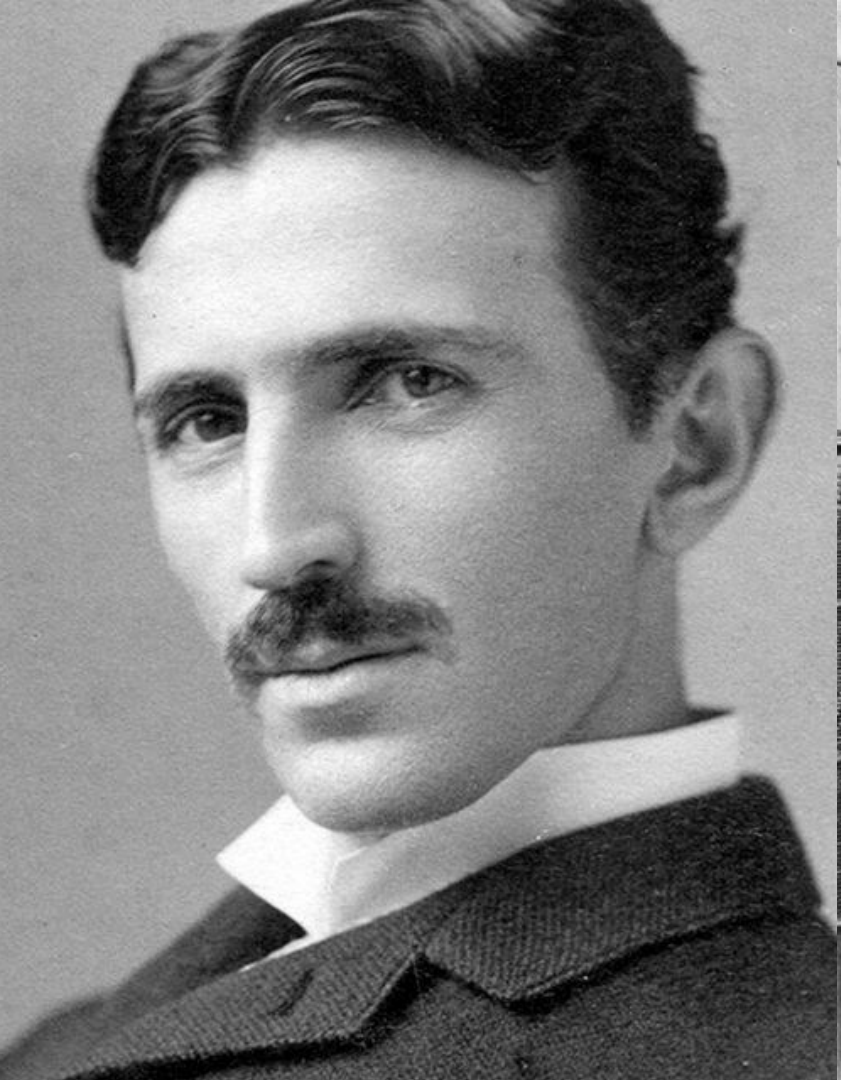
A	C
0	1
1	0



As computer technology evolved, the hardware became smaller. Highly efficient transistors eventually replaced vacuum tubes.

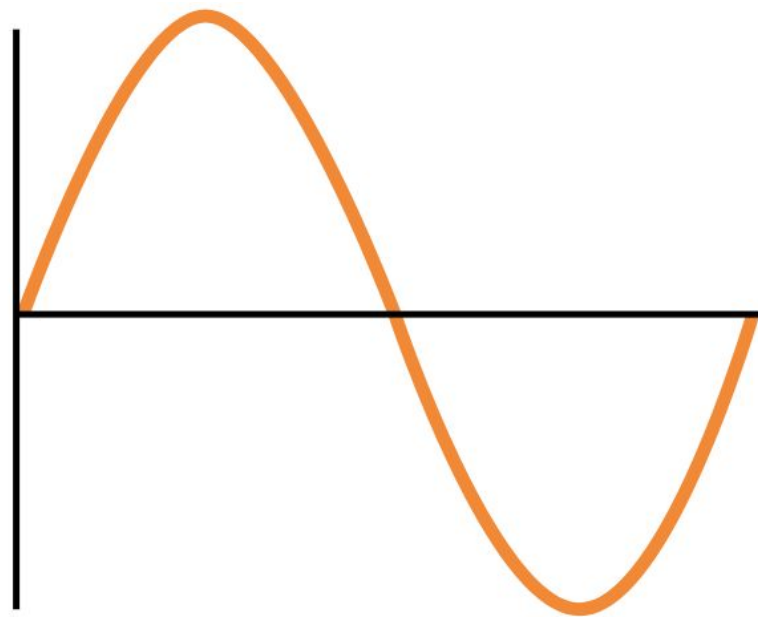








Direct Current



Alternating Current



