



Professional Development Service for Teachers | An tSeirbhís um Fhorbairt Ghairmiúil do Mhúinteoirí



An Roinn Oideachais agus Scileanna
Department of Education and Skills

Advanced Python Workshop



LEAVING CERTIFICATE
COMPUTER SCIENCE

Session 1 Part B

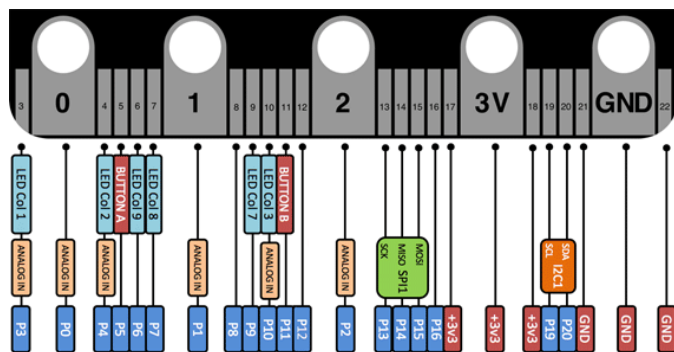
Motors and Circuits

Overview

- Overview of Motors
- Overview of Circuits
- Breakout Task

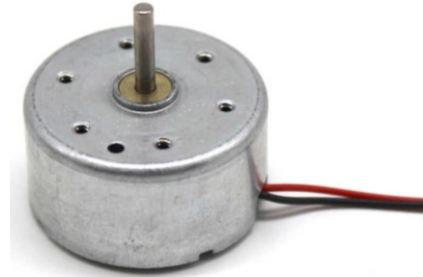
Capabilities of the Micro:Bit

- 3 volts
- 90 mA
- 22 pins



Basic Motors

- 3 to 6 Volt depending on the rating.
- Non polarized.



Servo Motors

- 3 volt Servo motors available.
- 360 degree and 180 degree available.



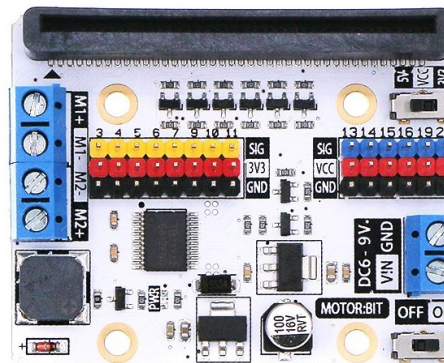
Geared Motor

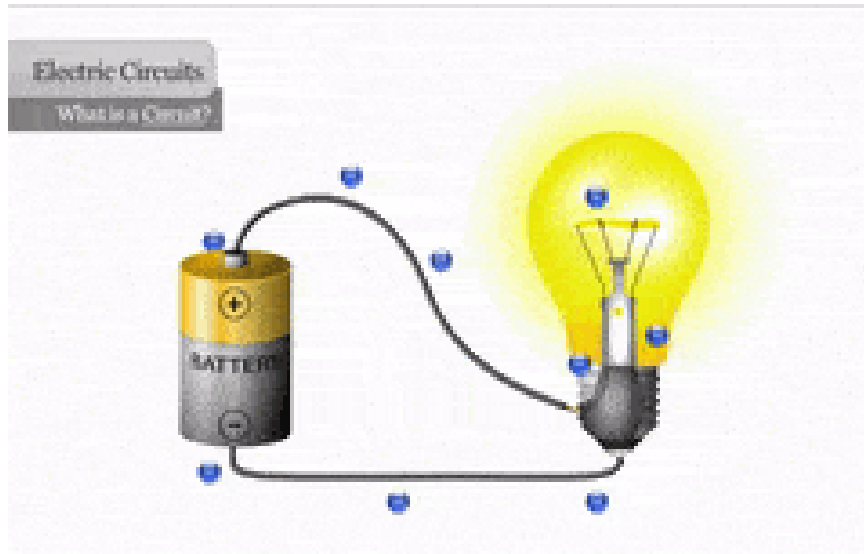
- Much more powerful and power hungry.
- Non-Polarized.



Motor Driver Boards

- Externally Powered (6 – 9volts).



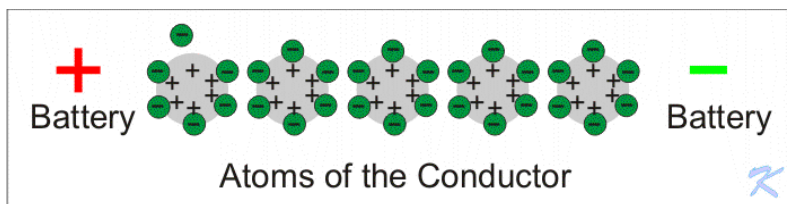


Circuits

- Electricity flows through the circuit.

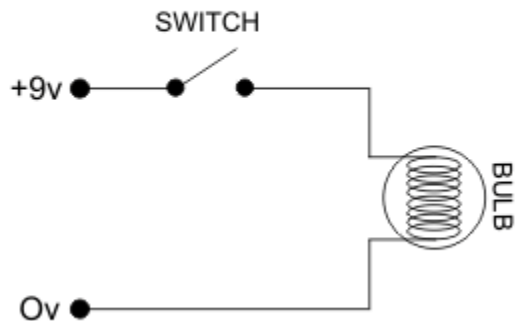
← **Electrons Move to the Left**

Positive Charge Moves with Missing Electron →

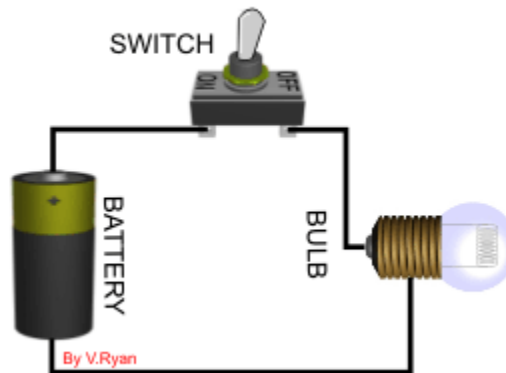


Circuit Diagrams

CIRCUIT DIAGRAM



PICTORIAL CIRCUIT DIAGRAM



TinkerCad and Circuits