# **Electronics Foundations: Semiconductor Devices**

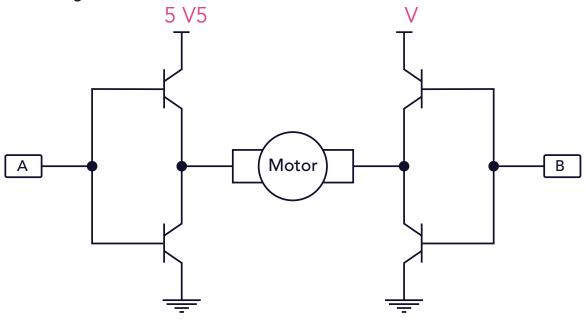




## Challenge: Control A Motor

Challenge: Create an H-bridge circuit that can control a DC motor to make it spin in either direction.

### Circuit Diagram:



#### Goals:

- Determine which transistors should be NPN.
- Determine which transistors should be PNP.
- Determine how should they each one be oriented.

#### **Bonus:**

• Determine where to place current limiting resistors in the H-bridge.

Item	Manufacturer	Model	Online Store URL
Basic Digital Multimeter (DMM)	Sparkfun	TOL-12966	
Autoranging Digital Multimeter (DMM)	ExTech	MN36	
Oscilloscope	Rigol		
Wire Strippers (22 AWG)			
Needle Nose Pliers			