



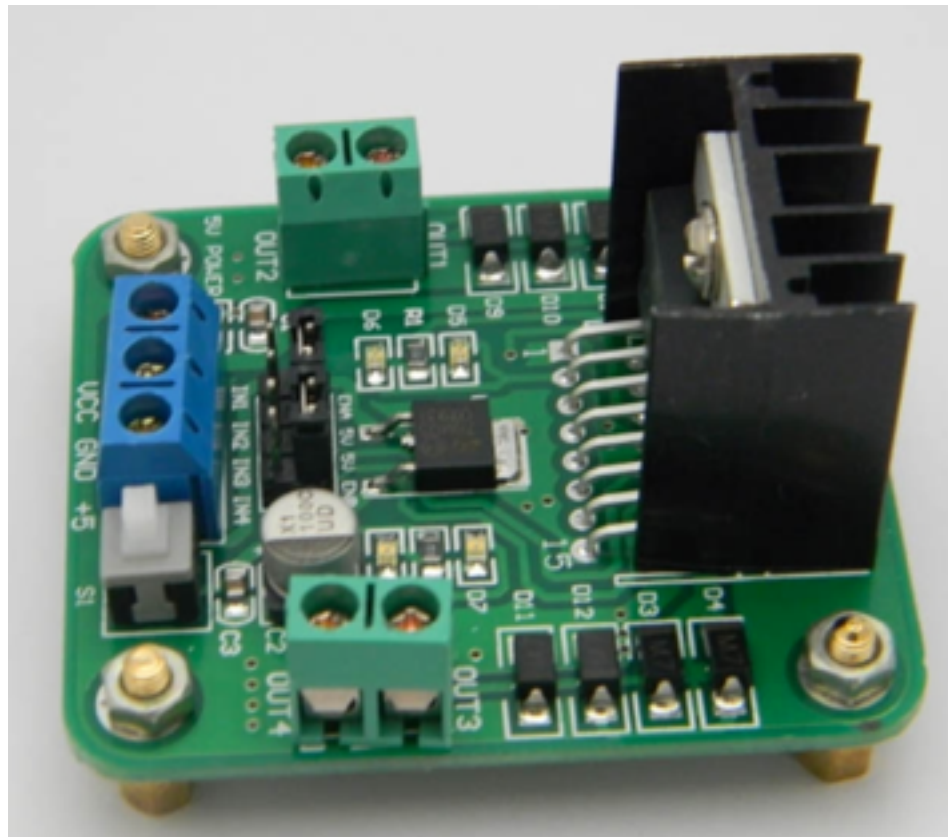
Arduino Bootcamp : Learning Through Projects

Remote Controlled Car - Using a Motor Driver - Part 2

Lecture Objectives

- In this lecture you will learn:
 - What are motor drivers
 - Why they are important
 - How they work
 - How they can be combined with the Arduino to control our DC motors

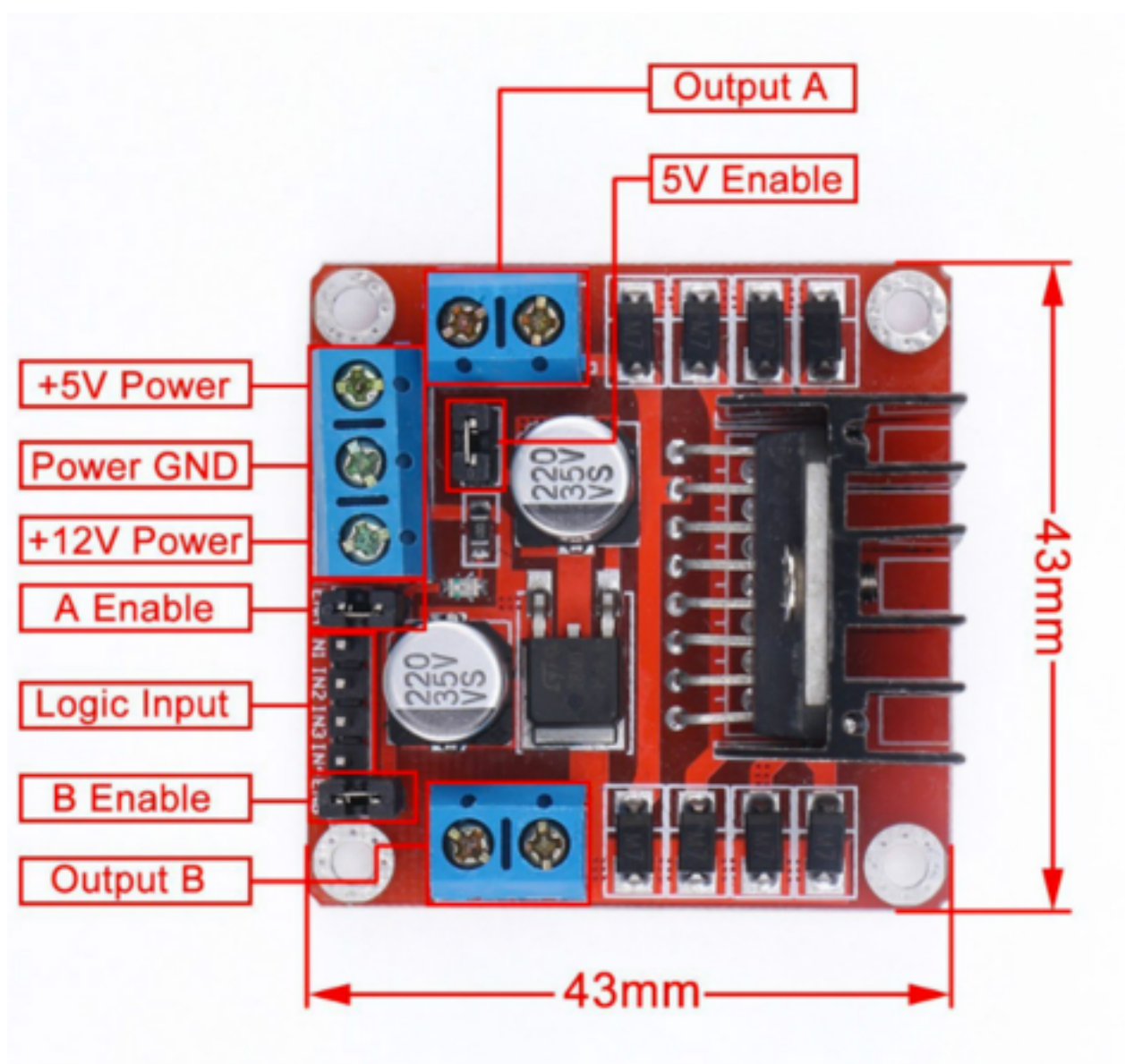
Motor Drivers



Why are they needed?

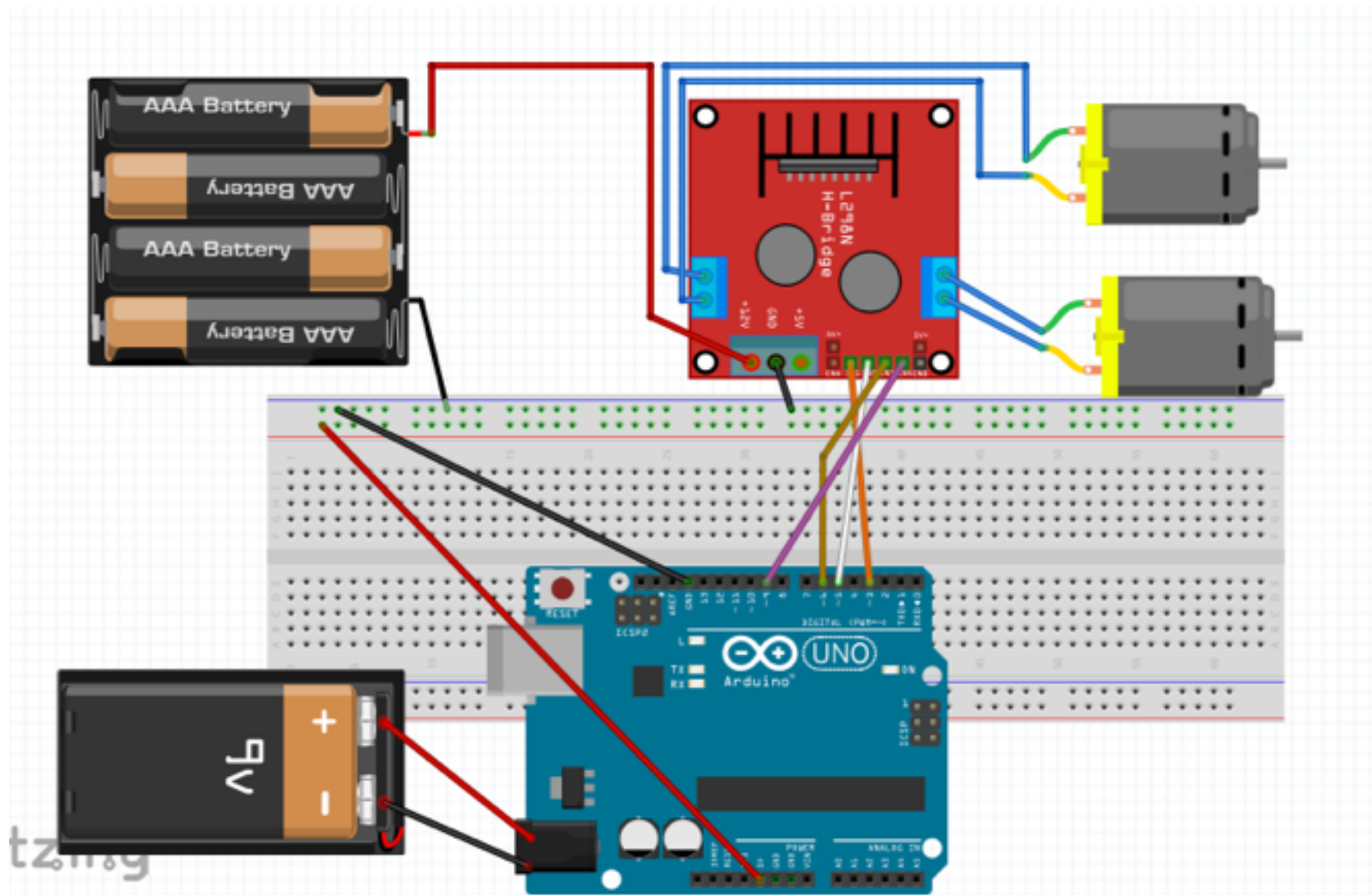
- The Arduino cannot provide enough power for motors
- We need to switch the polarity of the voltage we apply to motors to get them to reverse direction
- We also need the ability to adjust motor speed
- We need circuitry (capacitors etc) to reduce noise and back EMF on the circuit

Controlling a Motor Driver

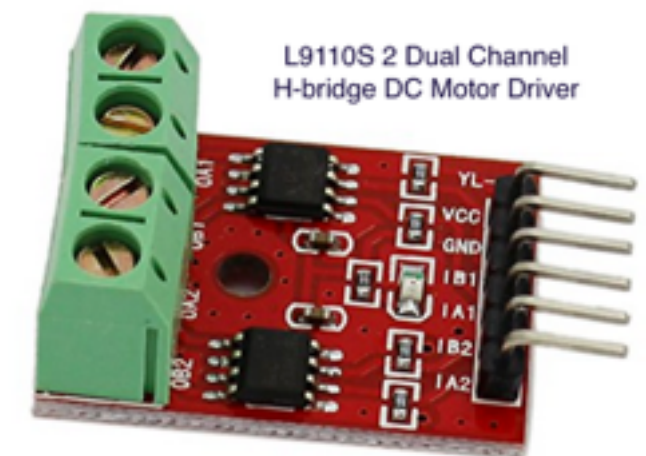


	Driver Pin	Arduino Pin
Motor A	A1	
	A2	
Motor B	B1	
	B2	
	GND	GND
	VCC	6V

Circuit Diagram



	Driver In Pin	Driver Out Pin	Arduino Pin
Motor A (Left)	IA1	OA1	3
	IB1	OB1	5
Motor B (Right)	IA2	OA2	6
	IB2	OB2	9
	GND	GND	GND
	VCC	VCC	6V



Summary

- In this project you learnt:
 - What are motor drivers and why they are important
 - How motor drivers operate
 - How we can control DC motors using the motor driver and an Arduino