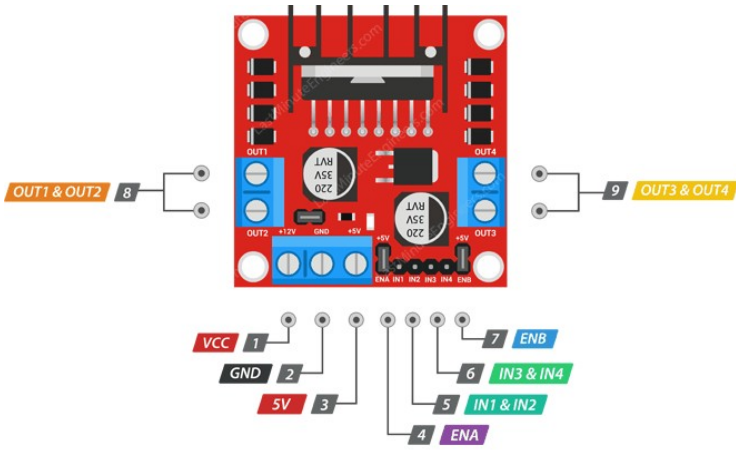
Interfacing Bipolar Stepper motor with Arduino Uno		
Sl. No	**Component Name**	**Description**
1	Arduino Uno	Microcontroller unit used to control the Stepper Motor Driver
2	Stepper Motor PM42S-048-ZZV9	It is a universal stepper motor comes with 6 wires, can be used as both unipolar & bipolar configurations.
3	L298N Module	It will comes with 2 H – Bridges which is used to change the direction of the flow of current which is essential in Bipolar Stepper Motor.
4	12V DC Power Supply	To drive the stepper motor.

L298N Module (HW-095)



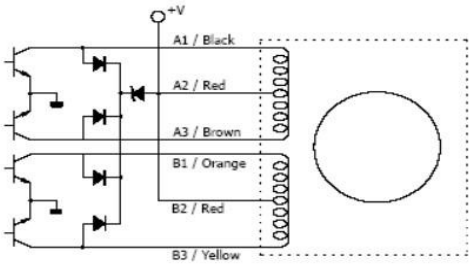
Stepper Motor – PM42S-048-ZZV9

■ Drive Circuitry and Wiring Diagram

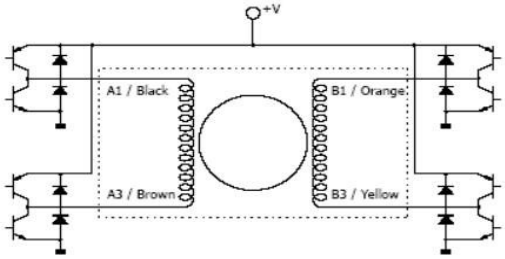
Show the drive circuitry and stndard color of lead wire.

1) Drive Circuitry

UNI-POLAR DRIVE



BI-POLAR DRIVE



2) Switching Sequence (Using the Drive Circuit Indicated Above)

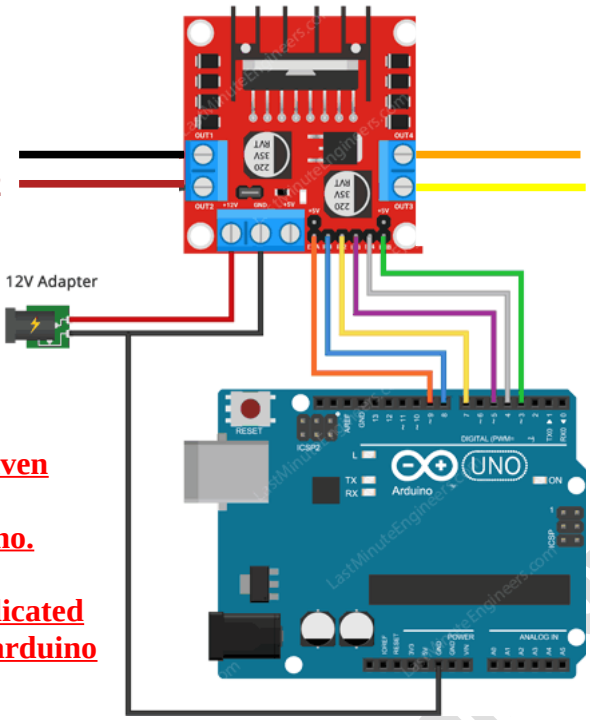
UNI-POLAR DRIVE

		A1 Black	A3 Brown	B1 Orange	B3 Yellow	A2/B2 Red/Red
CCW Rotation / CW Rotation	1	–			–	+
	2	–		–		+
	3		–	–		+
	4		–		–	+

BI-POLAR DRIVE

		A1 Black	A3 Brown	B1 Orange	B3 Yellow
CCW Rotation / CW Rotation	1	–	+	+	–
	2	–	+	–	+
	3	+	–	–	+
	4	+	–	+	–

Wiring Diagram:



Note:
Short ENA & ENB pins With the respective pin given above of it to avoid controlling it from Arduino.

Green & Orange wire indicated in the above image from arduino to driver module.

Leave the two RED wires of stepper Motor as it is. It will be used only when we run the motor in UNIPOLAR configuration.

Created By Keerthana Varma

Note: This is only for Educational purpose. Any one can use or edit this code with out any prior notice.

Open for all suggestions if any.