

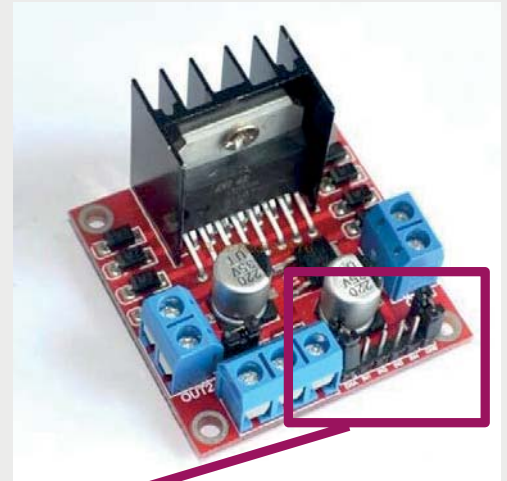
Using Manually coded sequences to control the car

The car can be manually coded to move about by writing sequences that run when you execute the program

The Motor Controller inside the car contains a chip called "L298N"

Different pins control direction & speed of the motors.

The pins (expanded below) on the motor controller, are wired up to the pins on either the Raspberry Pi or BBC micro:bit via our breakout board



ENA IN1 IN2 IN3 IN4 ENB



ENA, IN1 and IN2 control the motors on the left side of the car ENB, IN3 and IN4 control the motors on the right side of the car

To set a pin "Low" you set it to = 0 (Off)

To set a pin "High" you set it to = 1 (On)

Pins can't be set to any other number

If IN1 = 0 then IN2 can only be 1 or vice versa – this is handy to remember !

On the Raspberry Pi, when you change the state of one of the GPIO pins from "low to High" it does the same to the pins of the L298N.

On the BBC micro:bit in PXT you can "Digital write" a pin to 1 or 0

Via the Raspberry Pi you can use ENA or ENB to control motors using PWM (Pulse width modulation)