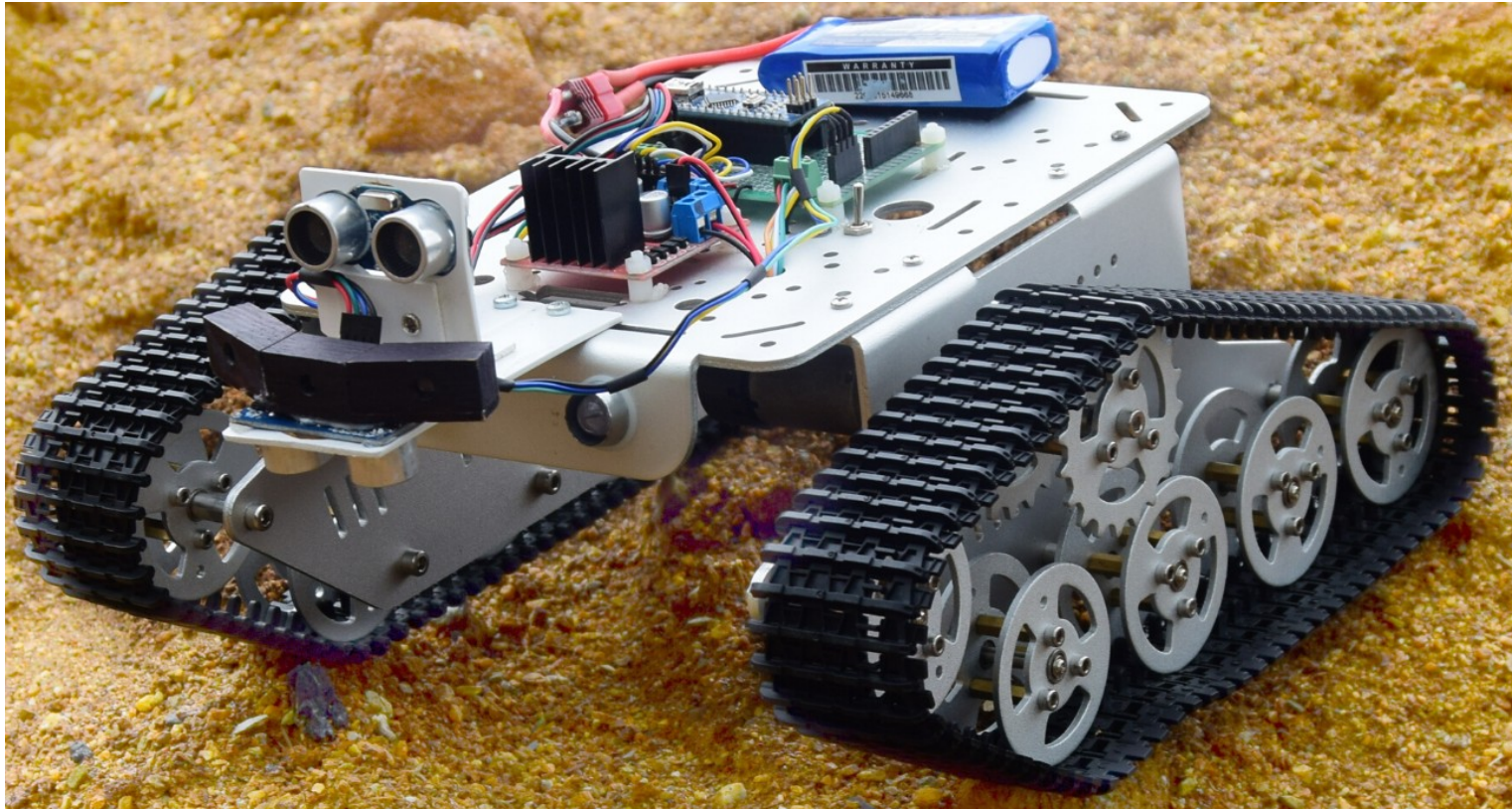


Mission to Mars Rover Details

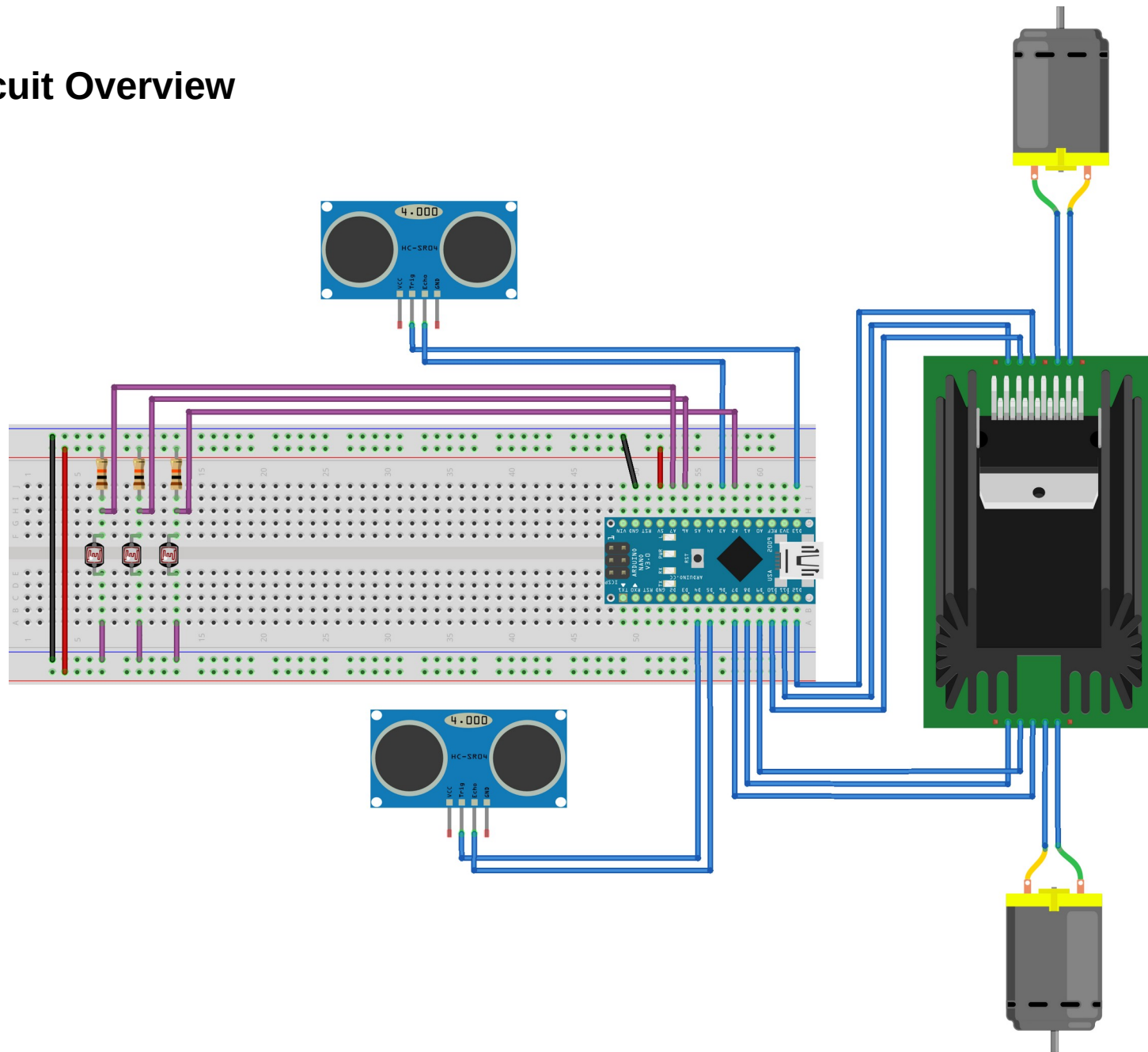


software
cornwall

Contents

Rover Circuit Overview.....	3
Chassis Information.....	4
L298N Dual H Bridge Truth Table.....	4
Pins.....	5
Story 2.....	6
Story 3.....	7
Story 5.....	8
Story 9.....	9
Story 10.....	10
Story 11.....	11

Rover Circuit Overview



Chassis Information

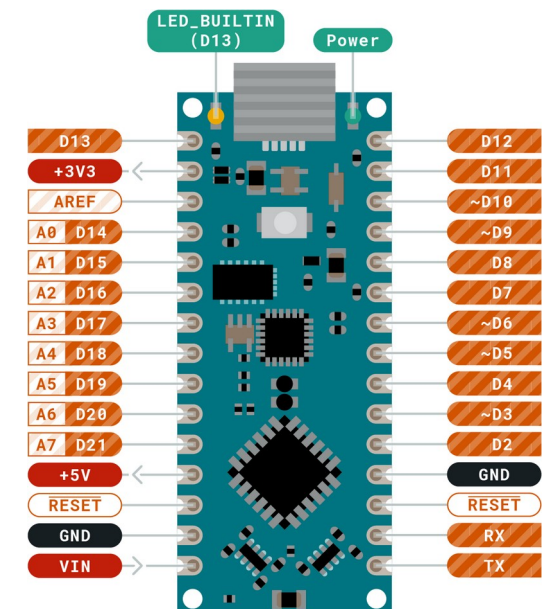
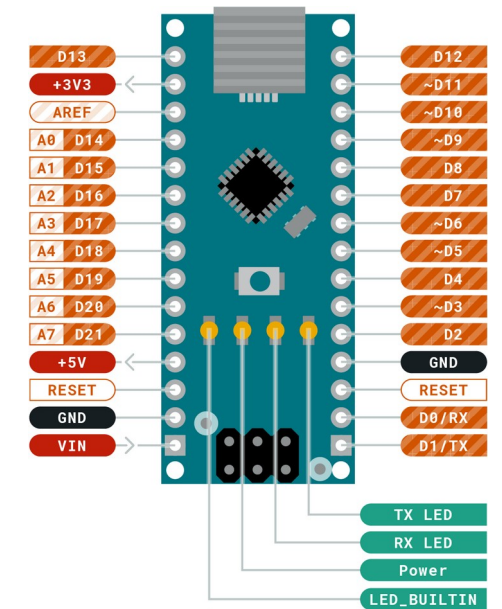
Chassis number	1	2	3	4	5	6	7
Chassis name							
Drive wheel teeth	20	20	20	20	20	20	20
20 teeth worth of drive track	16.2cm	16.2cm	16.2cm	16.2cm	16.2cm	16.2cm	16.2cm
Left Motor no load RPM forward							
Left Motor no load RPM reverse							
Left Motor pulses for 10 revolutions							
Right Motor no load RPM forward							
Right Motor no load RPM reverse							
Right Motor pulses for 10 revolutions							

L298N Dual H Bridge Truth Table

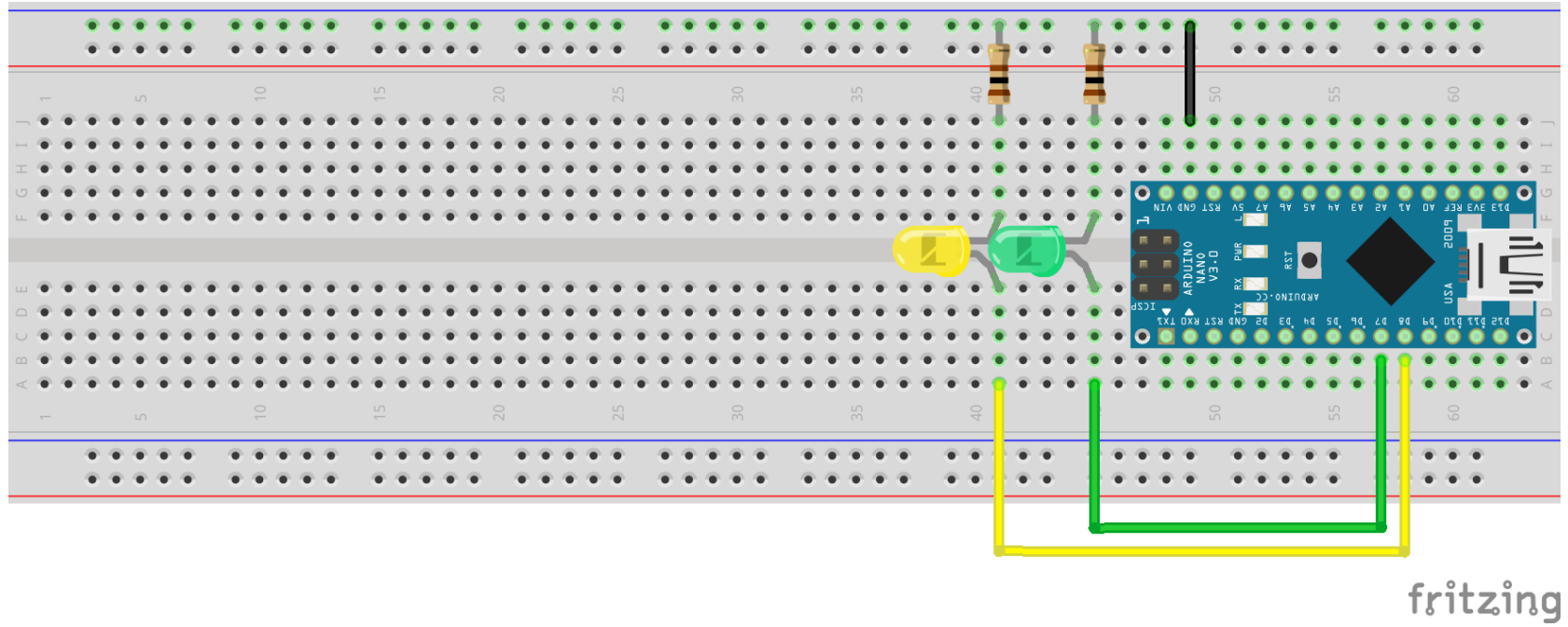
ENA / ENB	IN1 / IN3	IN2 / IN4	Motor State
0	-	-	Off
1	0	0	Fast Stop
1	0	1	Forwards
1	1	0	Reverse
1	1	1	Fast Stop

Pins

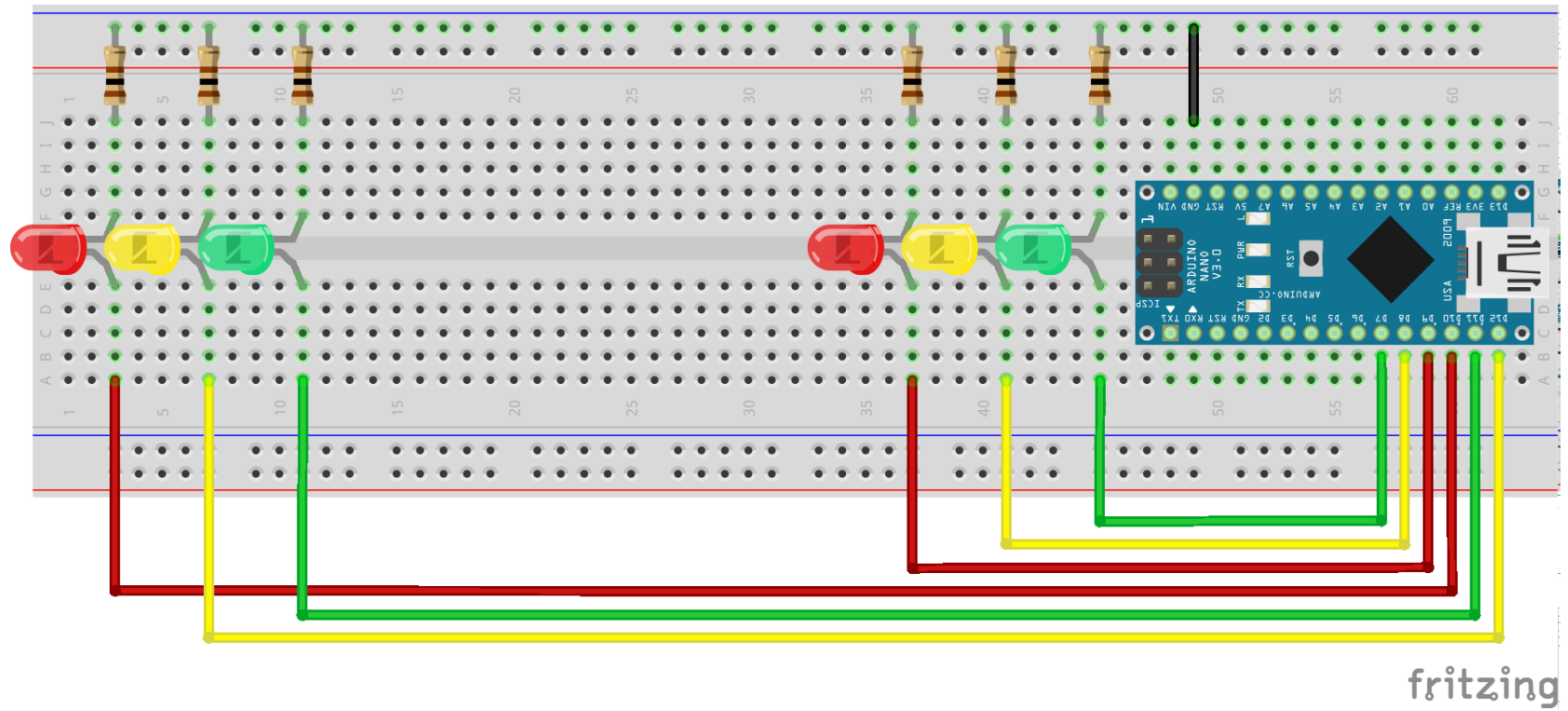
D0	Serial Rx	-
D1	Serial Tx	-
D2 (Interrupt pin)	Right hall effects	Input (requires internal pull ups to be enabled)
D3 (Interrupt pin)	Left hall effects	Input (requires internal pull ups to be enabled)
D4	Ultrasonic Forward Trigger	-
D5	Ultrasonic Forward Echo	-
D6 (PWM)	Servo	Analogue Output
D7	IN4 (Right Motor)	Output
D8	IN3 (Right Motor)	Output
D9	ENB (Right Motor)	Output
D10	ENA (Left Motor)	Output
D11	IN2 (Left Motor)	Output
D12	IN1 (Left Motor)	Output
D13	Ultrasonic Down Trigger	-
A0 / D14	Left LED	Output
A1 / D15	Right LED	Output
A2 / D16	Right LDR	Analogue Input
A3 / D17	Ultrasonic Down Echo	-
A4 / D18	I2C SDA	-
A5 / D19	I2C SCL	-
A6	Middle LDR	Analogue Input
A7	Left LDR	Analogue Input



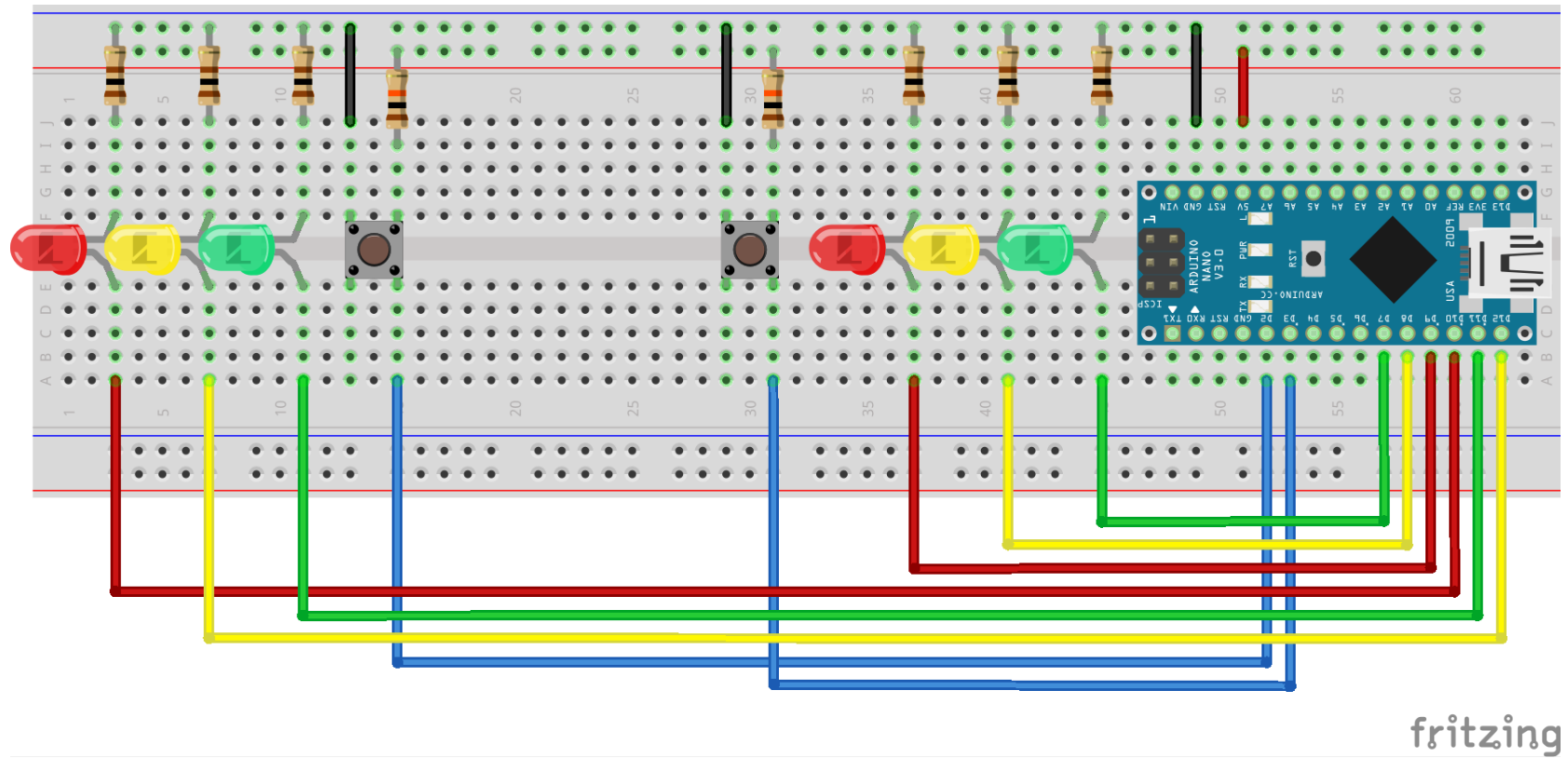
Story 2



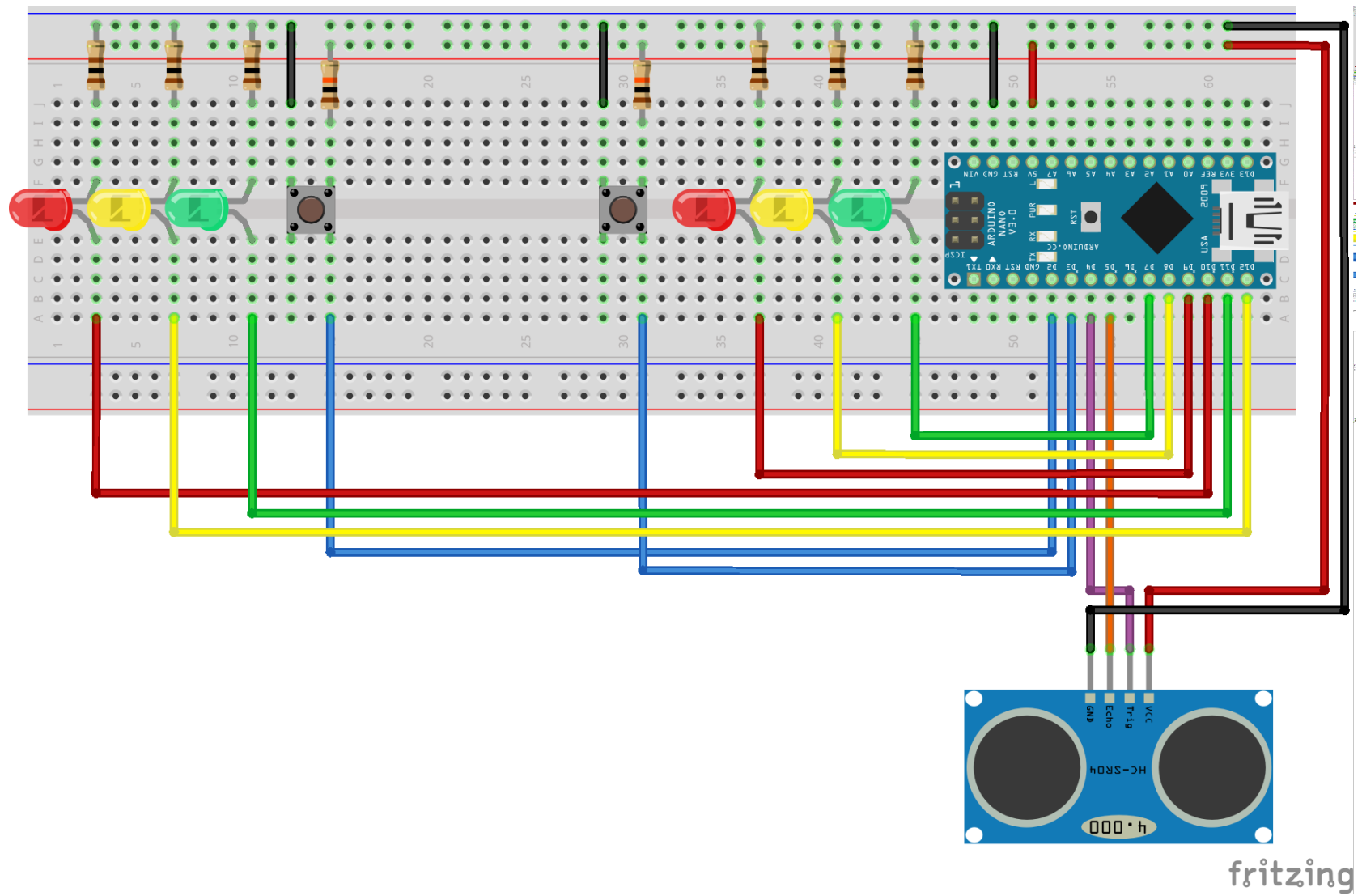
Story 3



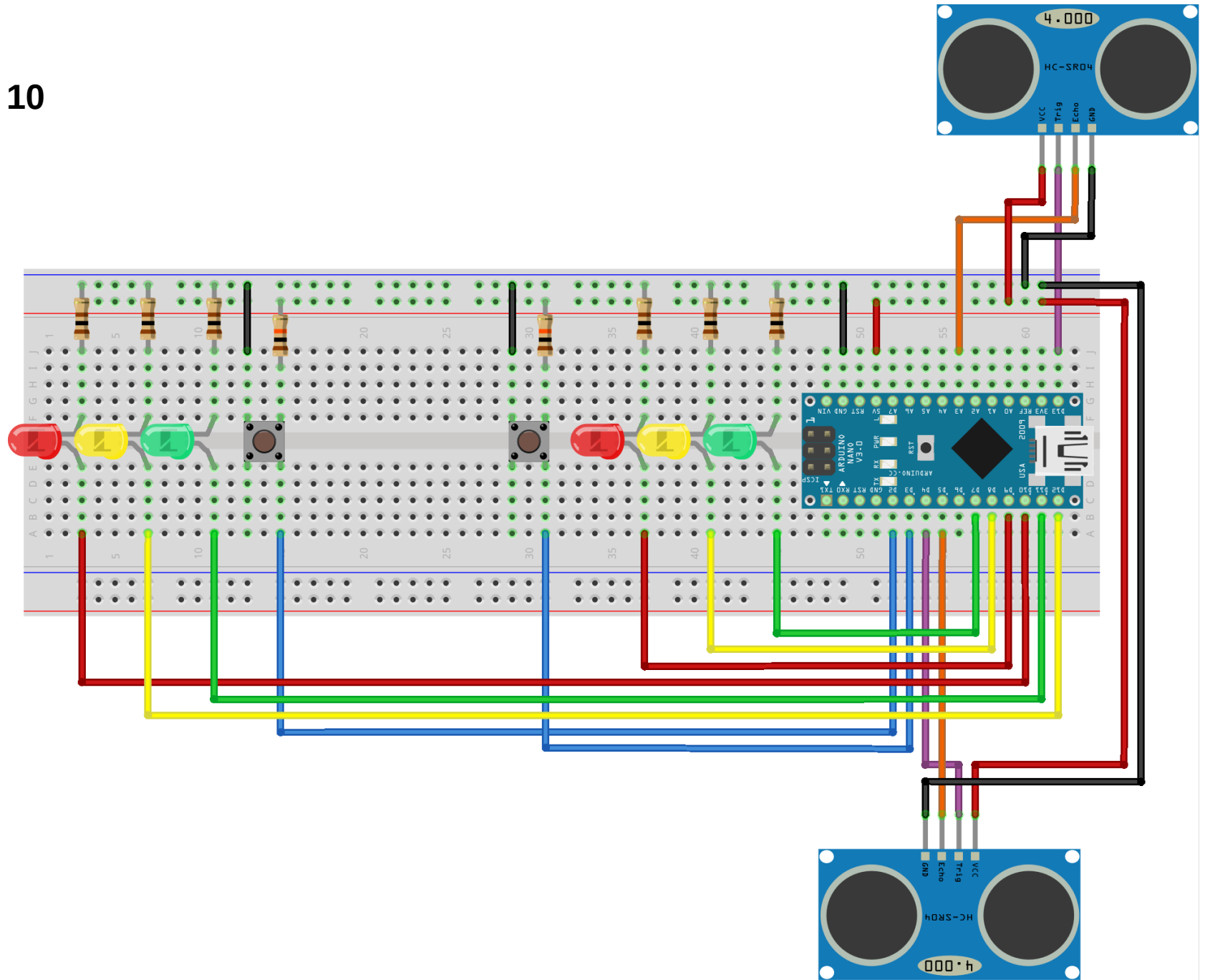
Story 5



Story 9



Story 10



Story 11

