

EPIC: 2024 Partner Class

Car Test / Programming

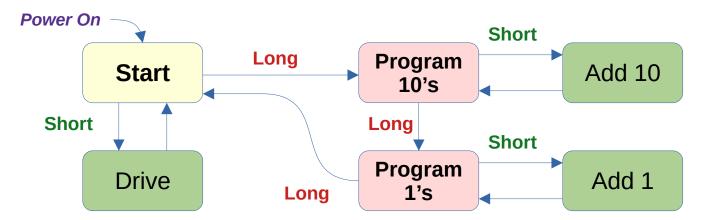
Initial test and sensor calibration:

Hold the button down, Turn on power switch, hold button 3s, release It should beep, blink all LEDs and twitch the motor.

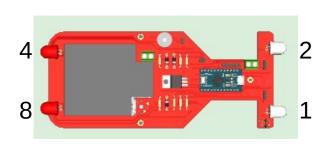
Spin the right front wheel until the short beeps stop. Tap the button to switch to driving mode (red LEDs only on) If anything doesn't work, check your wiring!

Driving: Press the button on the bottom once The car should beep, drive forward, and stop

Programming – you can change the distance the car runs
The distance is in wheel revolutions
Use the button on the bottom – short or long press



Current setting displayed in binary (base two) on LEDs



Binary				Decimal	Binary				Decimal
8	4	2	1		8	4	2	1	
0	0	0	0	0	0	1	0	1	6
0	0	0	1	1	0	1	1	1	7
0	0	1	0	2	1	0	0	0	8
0	0	1	1	3	1	0	0	1	9
0	1	0	0	4	1	0	1	0	10
0	1	0	1	5					



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The car measures distance by counting pulses from an optical sensor on the right front wheel.

Put a piece of tape on the wheel. It should be a color which contrasts with the wheel color.



The sensor needs to be calibrated once, following this procedure:

Hold the button down, Turn on power switch, hold button 3s, release It should beep, blink all LEDs and twitch the motor.

Spin the right front wheel until the short beeps stop.

During the beeping, the maximum and minimum light intensities seen by the sensor are recorded to set a threshold.

Press the button once after the beeping stops.