

Introduction to Lego EV3 and Robot C

EV3 brick:

32 bit processor
16 M flash memory
64 M RAM

can use:

- ⇒ float
- ⇒ int, 16-bit, $-32768 \rightarrow 32768$
- ⇒ long, 32 bit, $-2^{31} \rightarrow 2^{31}$

EV3 motor:

- ⇒ medium and large
- ⇒ The encoders measure the shaft position.

EV3 sensor:

- ⇒ Touch
- ⇒ color/intensity
- ⇒ Ultrasonic
- ⇒ gyro

Robot C vs C++ : (Differences)

- ⇒ IDE
- ⇒ Size of memory
- ⇒ Libraries not needed.
- ⇒ Starts with `taskmain()`.
- ⇒ Input/output will be diff.
- ⇒ Some constants are diff (name)
- ⇒ Some functions are special to this program

Robot C - wait function:

- ⇒ Handles any wait time, elapsed time
- ⇒ command: `wait1Msec(#)` # length of ms.

EV3 set Motor Power:

- ⇒ Motors: A, B, C, D. (A, D are plugged)
- ⇒ for setting motor power use command:
`motor[motor letter] = #`

→ power, range:

- $-100 \leq \# \leq 100$
- $-100 \rightarrow$ full reverse
- $0 \rightarrow$ Stop
- $100 \rightarrow$ full forward