The Xbot Family

Learning to program, with Arduino, in C on any microcontroller, in Python on a Raspberry or other ARM board is more fun if the objective is to make a robot move and behave in the best way, according to its sensors.

We devlopped three approaches to match your objective and interest.

The **XbotMicro** is the cheap way to add reliable wheels and whiskers to your Arduino/Pinguino board (indeed to any bord with 7 I/O). We provide a choice of sensors for the traditional robotic applications, and you can add some of the many sensor breakouts boards available on the market. It you use Arduino, we have a nice documentation and if you have followed or will follow the MOOC EPFL "Microcontrollers" you will become fluent in real time programming in C and you will enjoy our efficient libraries.

XbotMicro

80x105x40mm
40 grams
can carry 500 grams

3-5V
50mA
(200 mA at motor start)

< 0.1mA input current
Can be powered by a Raspberry

Xbot standard – RTF (Ready To Go)

Xbot-ARF – free shipping, 5 screws to put

You can use a Raspberry, just power the XbotMicro with 3V3. All inputs are low power.

The **XbotPlus** has the same functionality but there is a local AVR328 that handles the motors and sensors. The LibX library is used internally to get the sensor information and control the motors. The variables you read with a C program on the Xbot are available as the Xplus as I2C registers you read and write, using e.g. the Wire library. This makes you free of real time constraints and you can use a Raspberry programmed under Python.
The Xbot plus is compatible with the Xbot sensors, also handled as I2C commands..

	XbotPlus AVR 328 controller I2C 12 commands (incl sensors)
	Xbot compatible sensors

The **X+Go** is also controlled via I2C..The difference is the traditional sensors for avoiding obstacles, following a line or a torch, are included, with many leds that show the sensor values with a proportional intensity. A DgTell compatible display is included (available April 2016)

	X+Go 3 microcontrollers 30 I2C commands speed 1 to 50cm/s odometry 1mm 4 char display 3 distance sensors
	2 line sensors SR05 dist. sensor plugs for 2 servos 2 ambiant light sens. back light