

www.didel.com/KidulesPubE.pdf

## Kidules – Pinguino

The Kidules are 44mm square cheap electronic boards that allow to get familiar with C language (Arduino environment on Mac and PCs). Kidules have been designed for courses and workshops, but the documentation allows easy individual progress at all ages and gives you the pleasure to teach what you have so well understood. In seconds you connect 2 modules and explain.

The processor board, connected to a PC via USB is the universal controller. Application boards are connected on the side, easy to change. Each board is easy to understand, both for its hardware and software, and allows a set of exercises making small steps toward complexity.

Just take the simple 7-led module and push button : a beginner will have to do easy soldering, then check with a given program that all LEDs blink.

Then, a pedagogical approach with many exercises allows to learn how to write on the port, how to call procedures, how to debug. A LEDs doing what was expected is always a great reward ! But the objective is not blinking a LED : it ismastering embedded microcontrollers and C. More in French : <u>www.didel.com/kits/Kidules.pdf</u>







**Ki2550** buzzer, Led and two 8-bit ports

**KiCar** control of 2 0.5A motors and distance sensors

7-LEDs display and push-button



**3-floors elevator** 6-input and 1 motor bidirectionnal control

Once installed, Pinguino environment is very efficient to learn programming by executing and modifying many programs in a short amount of time.

Documentation is intended to provide a deep understanding of C language and of the 2550 hardware, typical of any microcontroller

All kids dream about a robot ? The robot includes a NiMh 3V battery, recharged from the USB connector. No battery to buy, no battery to through away.

The processor board is a piggy-back that controls the robot.

Learn to control the speed and to avoid obstacles with the whiskers. There are still 10 free bits on the processor board to add lights, sensors.

Imagine, build, program !







And we have other robots www.didel.com/Wbot2Pub.pdf www.didel.com/kidules/KiCar.pdf

Kidules are compatible with the Microdules. Very useful to debug, the microdules are the evolution path toward the design of complex applications using Arduino or PICs. See <a href="https://www.didel.com/08micro/Microdules.pdf">www.didel.com/08micro/Microdules.pdf</a>