

Small computer motherboard in palm of hand.

ARDUINO

2013 Nominet Trust 100 Winner

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2013

MAKES BUILDING HARDWARE DEVICES OPEN AND ACCESSIBLE TO ALL.

Project URL: arduino.cc

Project Twitter: [@arduino](https://twitter.com/arduino)

- Community Engagement
- Data
- Internet
- Physical Computing

Artists, designers and hobbyists have all benefited from simple software tools from Photoshop to SketchUp and GarageBand, to allow them to create designs and artworks more easily. Arduino aims to do the same thing but for hardware. Through Arduino and its imitators many more people could start making their own electronic devices, just as they might now put up their own shelves.

Arduino is an open source electronics prototyping platform based on flexible, easy-to-use hardware and software, and designed to make the process of using electronics in multidisciplinary projects more accessible. It brings electronics within easy reach of the do-it-yourself movement and opens it up to non specialists.

In the hands of an artist in the developed world, an Arduino kit might become a new interactive installation. In the hands of a community environmental activist in the developing world it might mean a sensor to monitor levels of pollution and waste. Arduino could be widely used in schools to allow children to learn to build their own electronic devices, spreading electronics skills to a much wider population.

The core to an Arduino is a simple but robust circuit board which costs half that of traditional boards. An Arduino board can sense its environment by receiving input from a variety of sensors and can affect its surroundings by controlling lights, motors and other actuators. The microcontroller on the board is programmed using the open source Arduino programming language and development tools. Arduino hardware can be freestanding or controlled by a computer. Arduino makes all its designs available open source so the developer community can share better designs and prototypes.

Arduino could do for hardware what open source has already done for software: provide a low-cost way for millions of people to create and share a wide range of novel designs and applications.

Image courtesy of Arduino

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