ARDUINO

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Outline

- Glossary
- What is Arduino?
- Why is it popular?
- Where to begin?
- What other platforms are available?
- SHIELDS (Modules)
- What can be done based on Arduino?
- Conclusion
- Sources

Glossary

► Open-source: информация для всеобщего обозрения с исходниками

► SmartProject: компания предоставляющая изготовление микропроцессоров и микроконтроллеров

► Arduino IDE: пакет программного обеспечения для разработки софта и легкой загрузки его в Arduino

What is Arduino?

► Arduino is an open-source computer hardware and software company, project and user community that designs and manufactures kits for building digital devices and interactive objects that can sense and control the physical world. Arduino boards may be purchased pre assembled, or as do-it-yourself kits; at the same time, the hardware design information is available for those who would like to assemble an Arduino from scratch
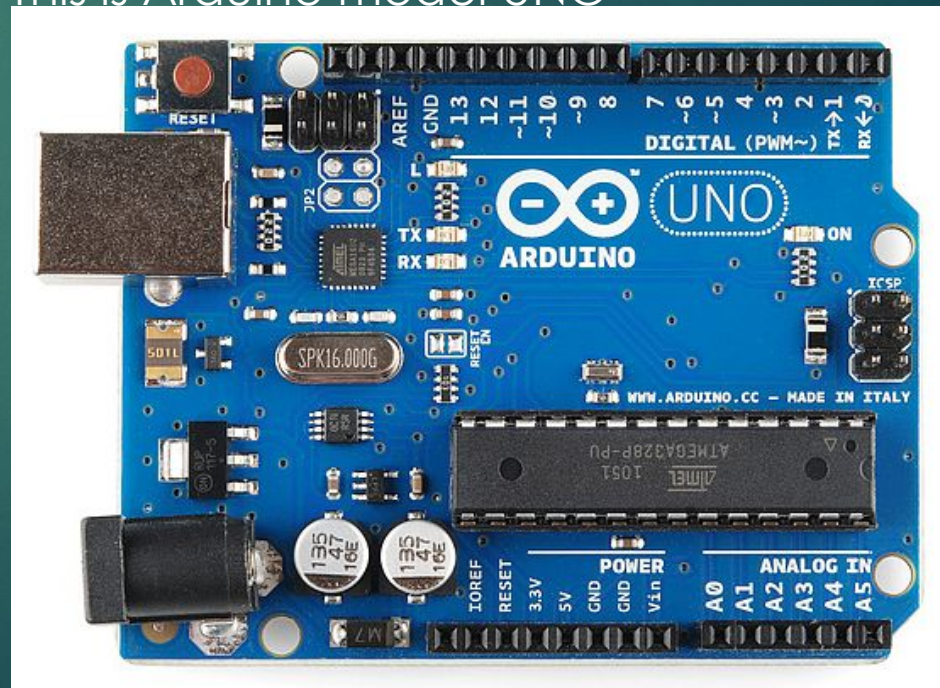
Size of Arduino UNO

Why is it popular?

► The Arduino platform has become popular among people just starting out with electronics, and for good reason. Arduino is an advantage, him does not need a separate piece of hardware to load new code onto the board – you can simply use a USB cable. Additionally, the Arduino IDE uses a simplified version of C++, making it easier to learn to program. Finally, Arduino provides a standard form factor that begins to contain the functions of the micro-controller into a more accessible package.

Where to begin?

► The Uno is one of the more popular boards in the Arduino family and a great choice for beginners. We'll talk about what's on it and what it can do.

This is Arduino model UNO

What other platforms are available?

They very much. Here are some of them:

And so on…

SHIELDS (Modules)

For Arduino can connect many different modules that extend the capabilities of the platform:

Arduino GSM Shield

Arduino Ethernet Shield
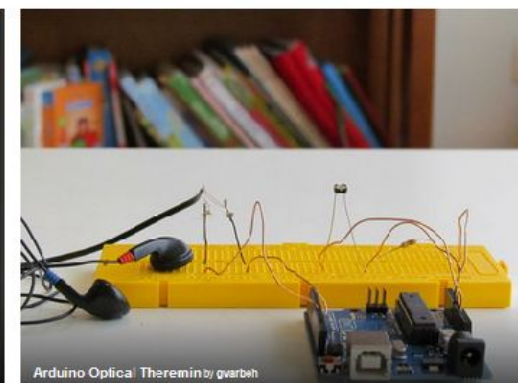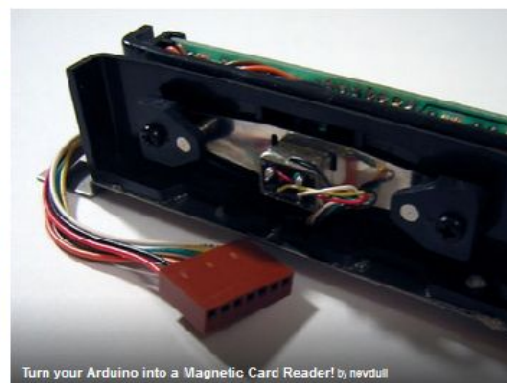
Arduino WiFi Shield
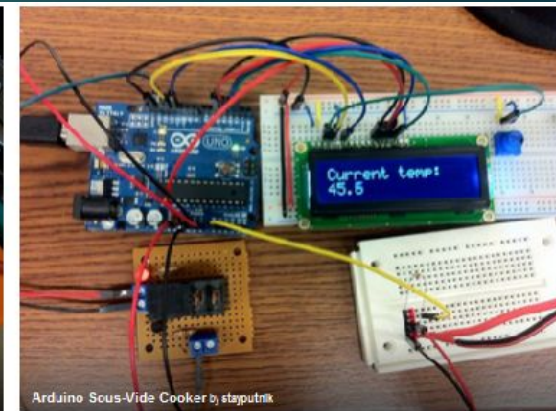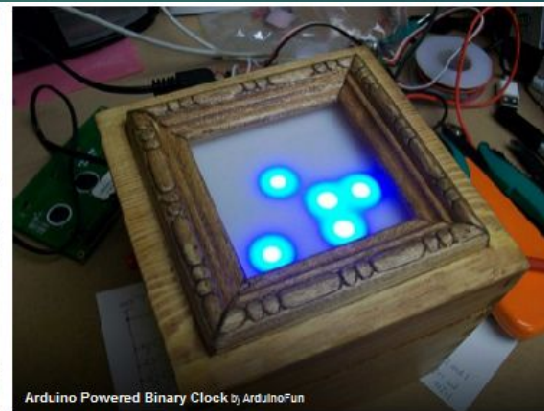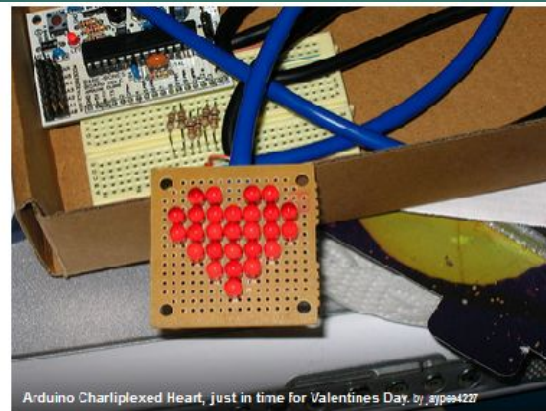
Arduino Wireless SD Shield

Arduino USB Host Shield

Arduino Motor Shield

What can be done based on Arduino?

► At its base you can do almost everything. Starting from an adjustable backlight and finishing with a game console. All projects created by users, are available on the site.

The Lightning Simulator/Breathalyzer/Graphic Equalizer - ... by allinle

Wireless Altoids Display by DELETED_Alexdlp

Arduino Charliplexed Heart, just in time for Valentines Day. by aypse4227

Arduino Powered Binary Clock by ArduinoFun

Arduino Sous-Vide Cooker by stayputnik

Ardu-pong! the Arduino based pong console by kyle brinkerhoff

Turn your Arduino into a Magnetic Card Reader! by nevdull

Tilt Sensing Bracelet by Plusea

FireHero: Turn Guitar Hero into an extreme sport by addin... by oswaldonfire

Arduino Optical Theremin by gvarbeh

Conclusion

► If you're looking for a way to begin programming robotics and other projects, Arduino is a great and fun place to start. So what are you going to create with Arduino?

Arduino is described by its makers as…

"an open-source electronics prototyping platform based on flexible, easy-to-use hardware and software,"

…what ever that means.

Sources

- http://www.arduino.cc/
- http://www.instructables.com/id/Arduino-Projects/
- http://www.bbc.co.uk/education/guides/zdsbwmn/revision
- http://news.bbc.co.uk/2/hi/technology/8063975.stm
- http://www.techhive.com/article/239454/geek_101_what_is_arduino.html

Thanks for a watching.