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# Arduino

Isfahan Linux User Group



# Arduino

- What is an Arduino?
- Why Arduino?
- Arduino Boards-Shields
- Compiler-shcematic-IDE
- Arduino commmander

# What is an Arduino?

- Single-board microcontroller\*
- open-source hardware
- Creative Commons Attribution-ShareAlike 3.0 License.
- Base on Wiring framework
- USB, Serial, PWM, Analog, ...

# Why Arduino?

- Inexpensive less than 50\$
- Cross-platform
- Simple, clear programming environment
- Open source and extensible software/hardware

# Arduino Boards-Shields

- Arduino Uno
- Arduino Leonardo
- Arduino Mega ۲۵۶۰
- Arduino Due \*(ARM)
- Arduino WiFi Shield
- Arduino Ethernet Shield
- \*Arduino Bluetooth Shield



# Compiler-shcematic-IDE

- Avr-g++
- Wiring
- Usb to serial (ftdi, atmega $\lambda$ )
- AVR-ARM , USB OTG
- Powered via USB
- apt-get install arduino

# Arduino commander

- Android
- WYSIWYG
- over bluetooth
- over ethernet
- over USB
- Firmata framework

