

Arduino

Development Board

Course Number : TTH2D3

CLO : 1

Week : 5-7

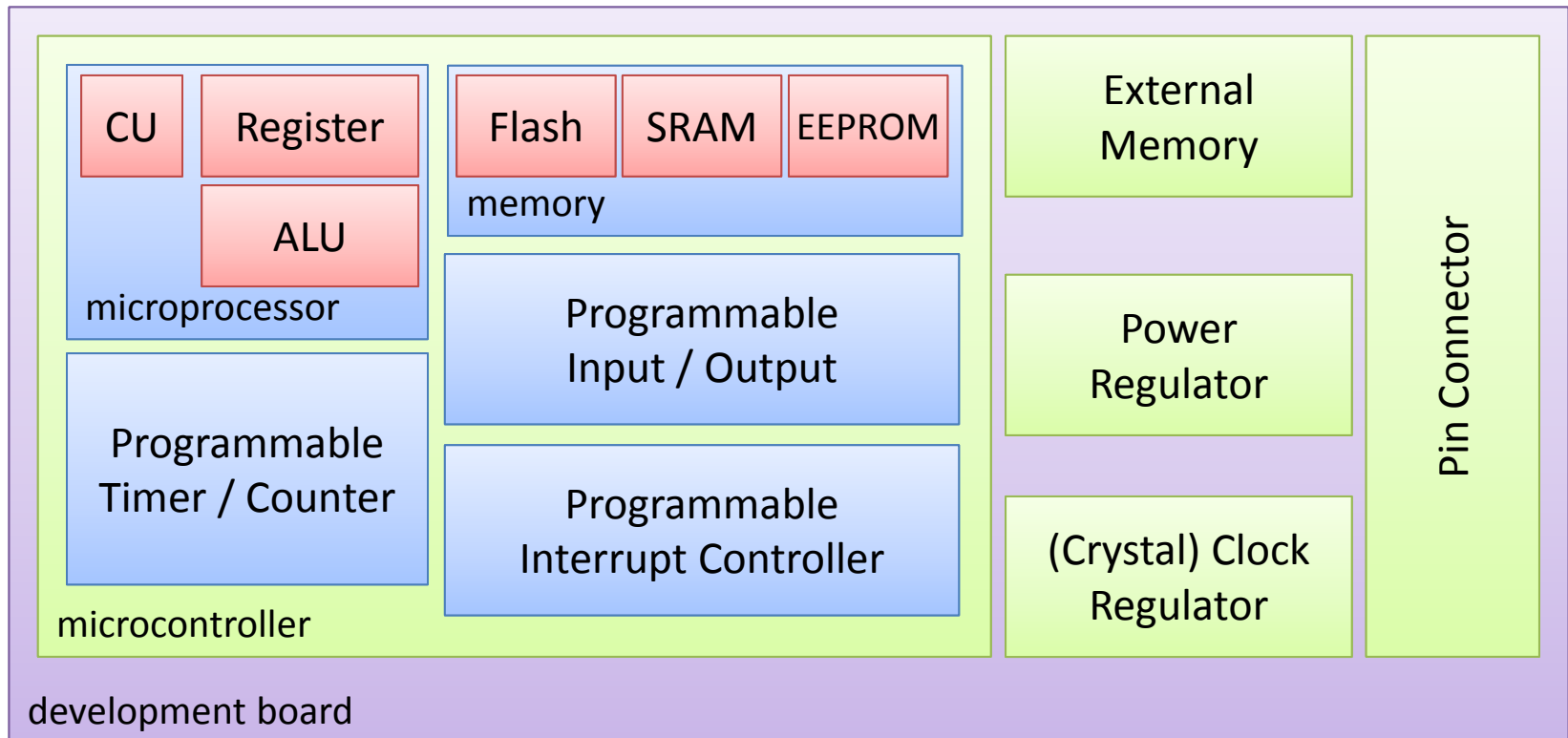
CLO#1 Student have the knowledge to explain microprocessor system

[C2] Understand the history of microprocessor and microcontroller

[C2] Understand the architecture of computer system

[C2] Understand the design of minimum system for microcontroller

What is the difference between μ P, μ C, and Development Board?



Arduino

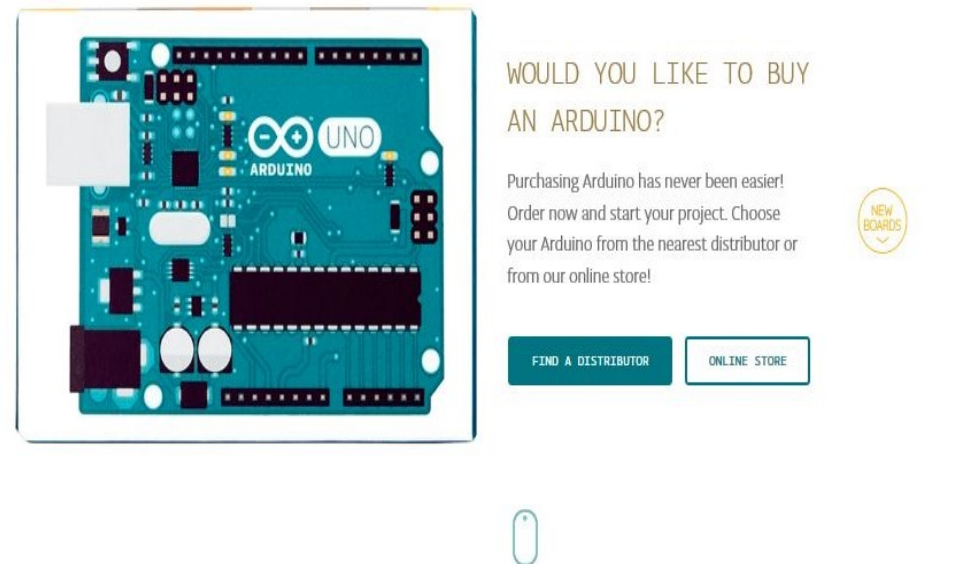


Development Board



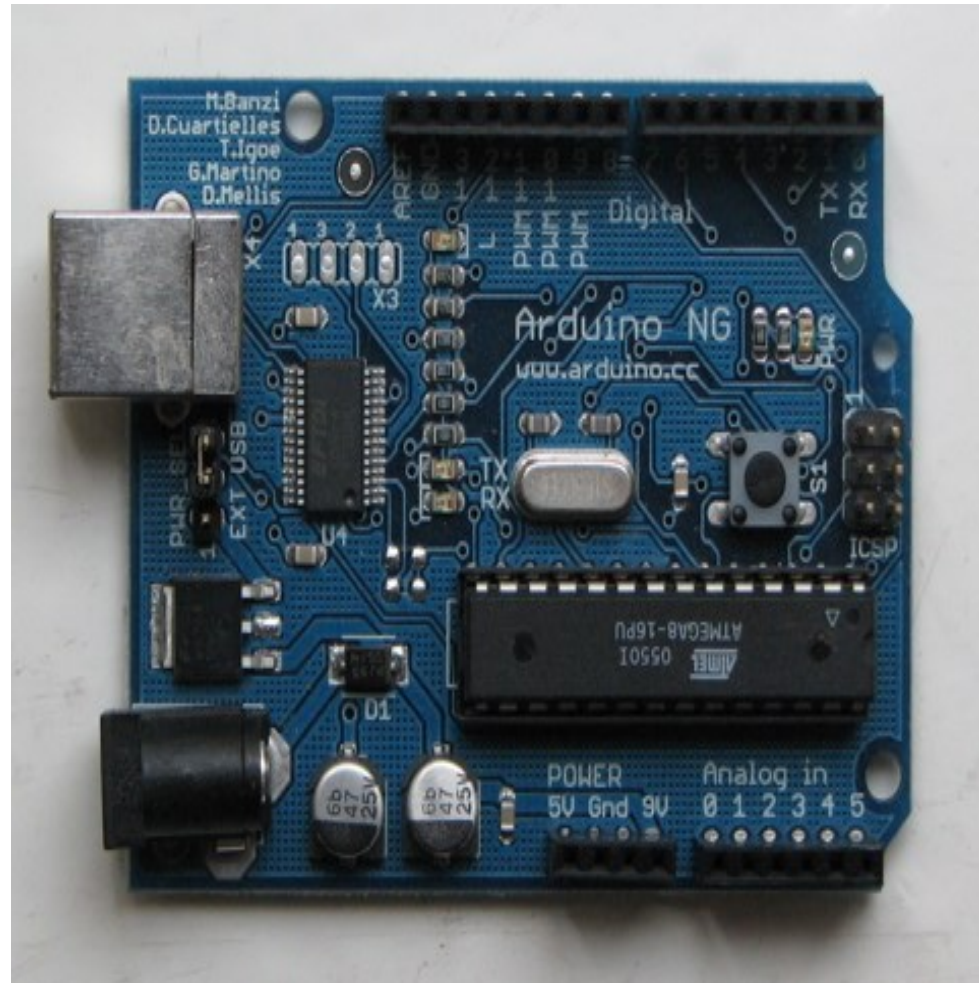
Arduino: Resources

- <http://www.arduino.cc>
- <http://www.arduino.org/products/boards/arduino-uno>

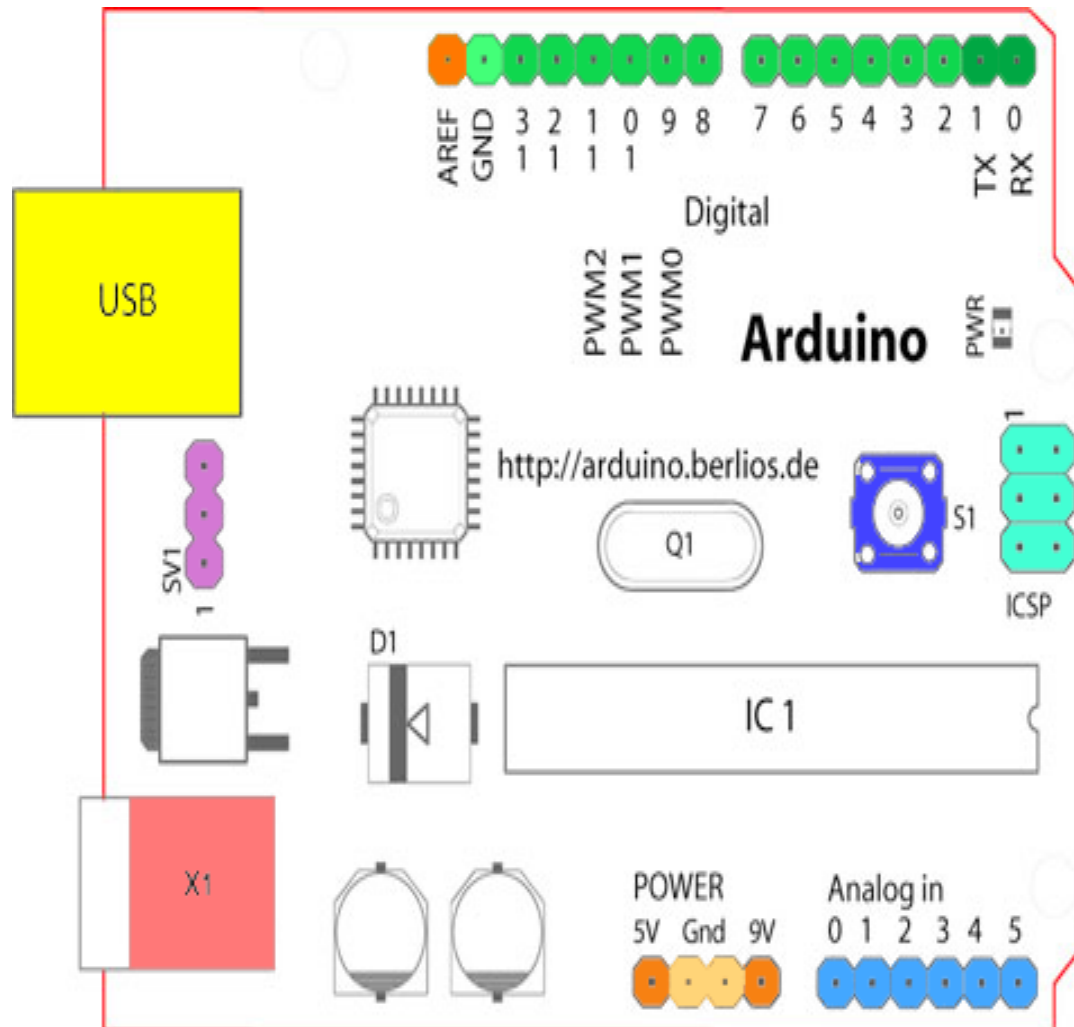


What is Arduino?

- Physical computing platform
- Open source
- “Hardware Abstracted”
Wiring Language
- USB programmable
- Large community
- Inexpensive (\$31.95 from
Sparkfun)



Arduino Board Overview



Arduino Official

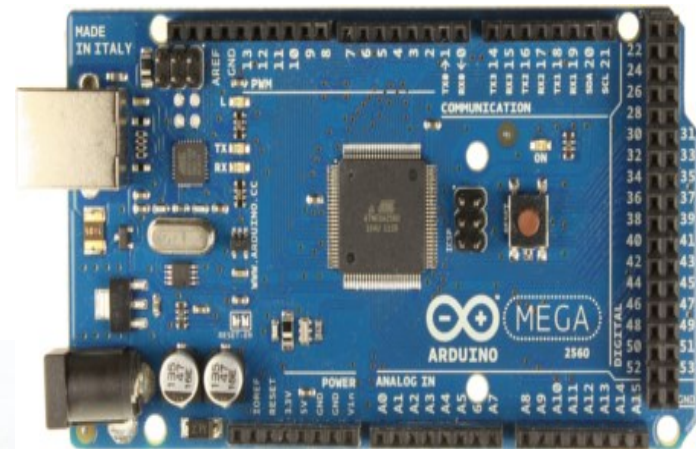
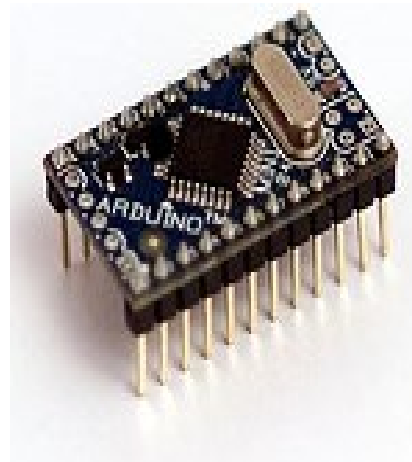
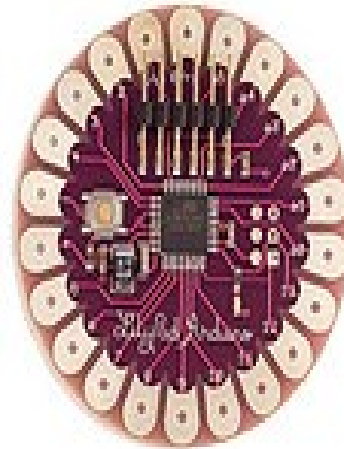
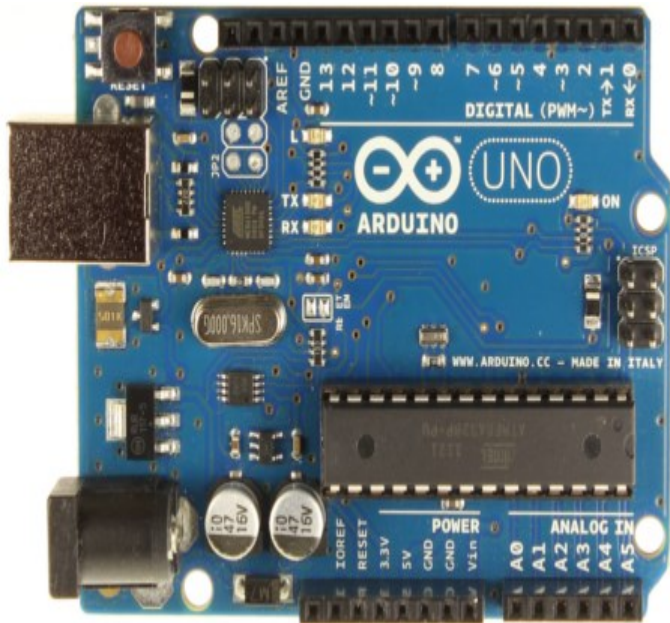
Arduino boards

- Uno
- Mega 2560
- Mega ADK
- Ethernet
- BT
- LilyPad
- Fio
- Pro
- Nano
- Mini
- Pro Mini

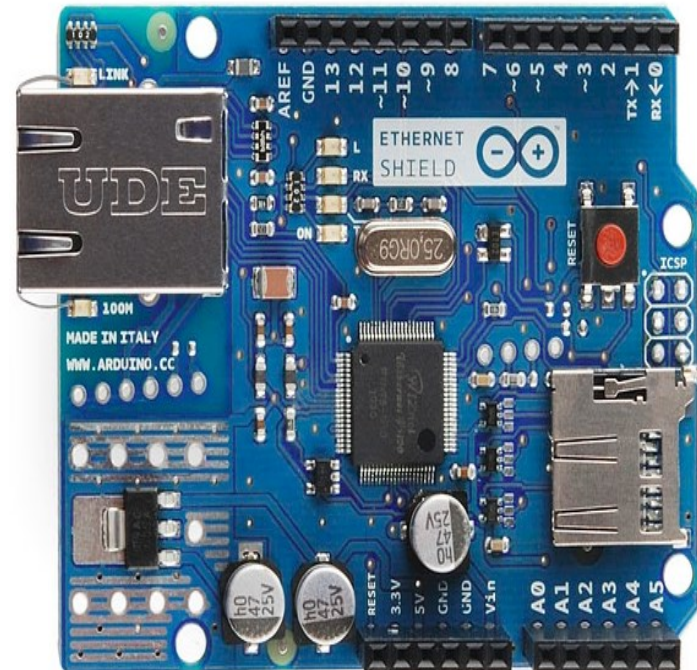
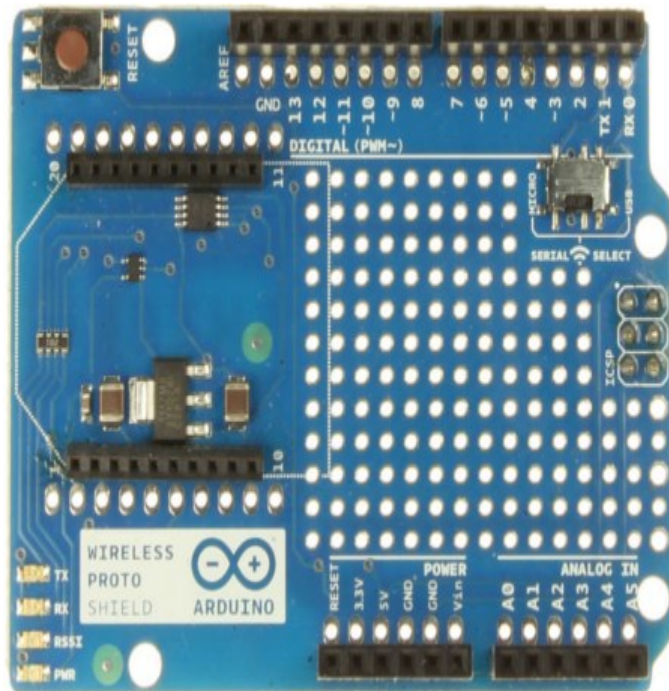
Arduino shields

- Ethernet
- Wireless SD
- Wireless Proto
- Motor
- Proto

Arduino Boards

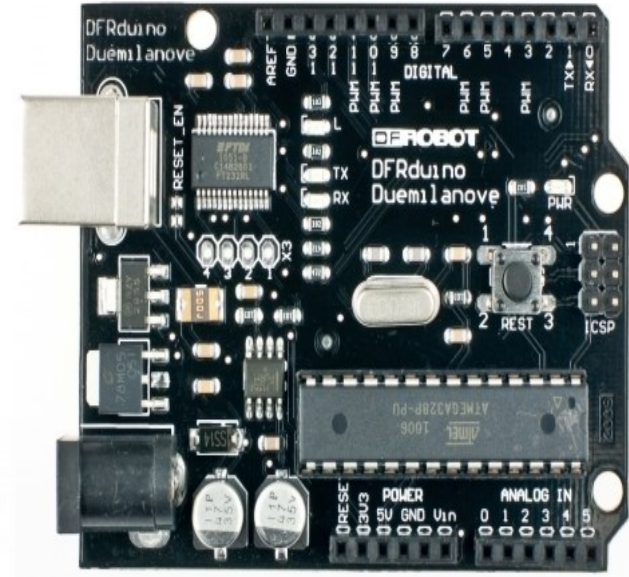


Arduino Shields

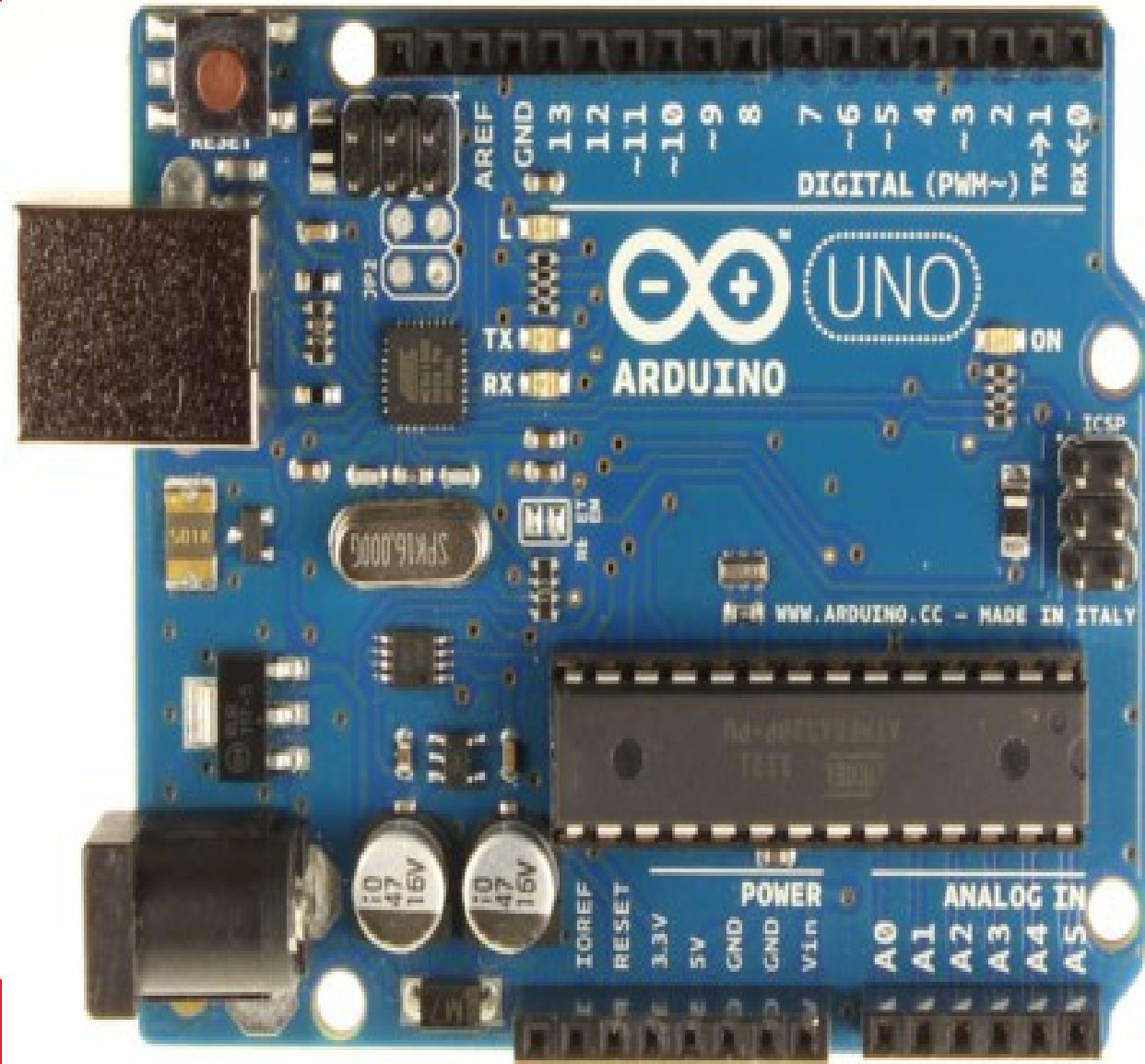


“Unofficial” Boards and Shields

- Adafruit
- Sparkfun
- DFRobot
- Itead Studio
- etc



Arduino Uno: Physical Layout



Arduino IDE: Integrated Development Environment



- Arduino programming language based on Wiring (<http://wiring.org.co>)
- Arduino development environment based on Processing (<http://www.processing.org>)
- Source code = Sketches

“Official”

- Arduino playground

<http://playground.arduino.cc/>

- Learning Arduino

<https://www.arduino.cc/en/Guide/HomePage>

See you on next class