



Alessandro Sivieri - 07/04/2011



***Arduino** is an open-source electronics prototyping platform based on flexible, easy-to-use hardware and software. It's intended for artists, designers, hobbyists, and anyone interested in creating interactive objects or environments.*



Open source electronics prototyping platform

- Disponibili sotto licenza libera:
 - Design hardware
 - Il software installato
- E' possibile costruire alternative compatibili
- Per l'hardware vale ancor di più l'accezione *free as in speech*



open hardware

Arduino Hardware

- Atmel AVR, 8-bit
- USB-to-serial
- I/O pins: digitali vs. analogici
- Accessori:
 - Ethernet shield
 - XBee shield
 - Wave shield
 - ...

Intended for artists, designers, hobbyists

- Facilità d'uso: non è necessaria una laurea in Ingegneria Elettronica (sorry... :)
- Programmazione tramite *Wiring*
 - C++ semplificato (ma che potete sempre complicare a piacimento)
- IDE preso "in prestito" da *Processing*





The image shows a screenshot of the Arduino IDE window titled "Blink | Arduino 0022". The window contains the following code:

```
File Edit Sketch Tools Help

Blink

/*
  Blink
  Turns on an LED on for one second, then off for one second, repea

  This example code is in the public domain.
  */

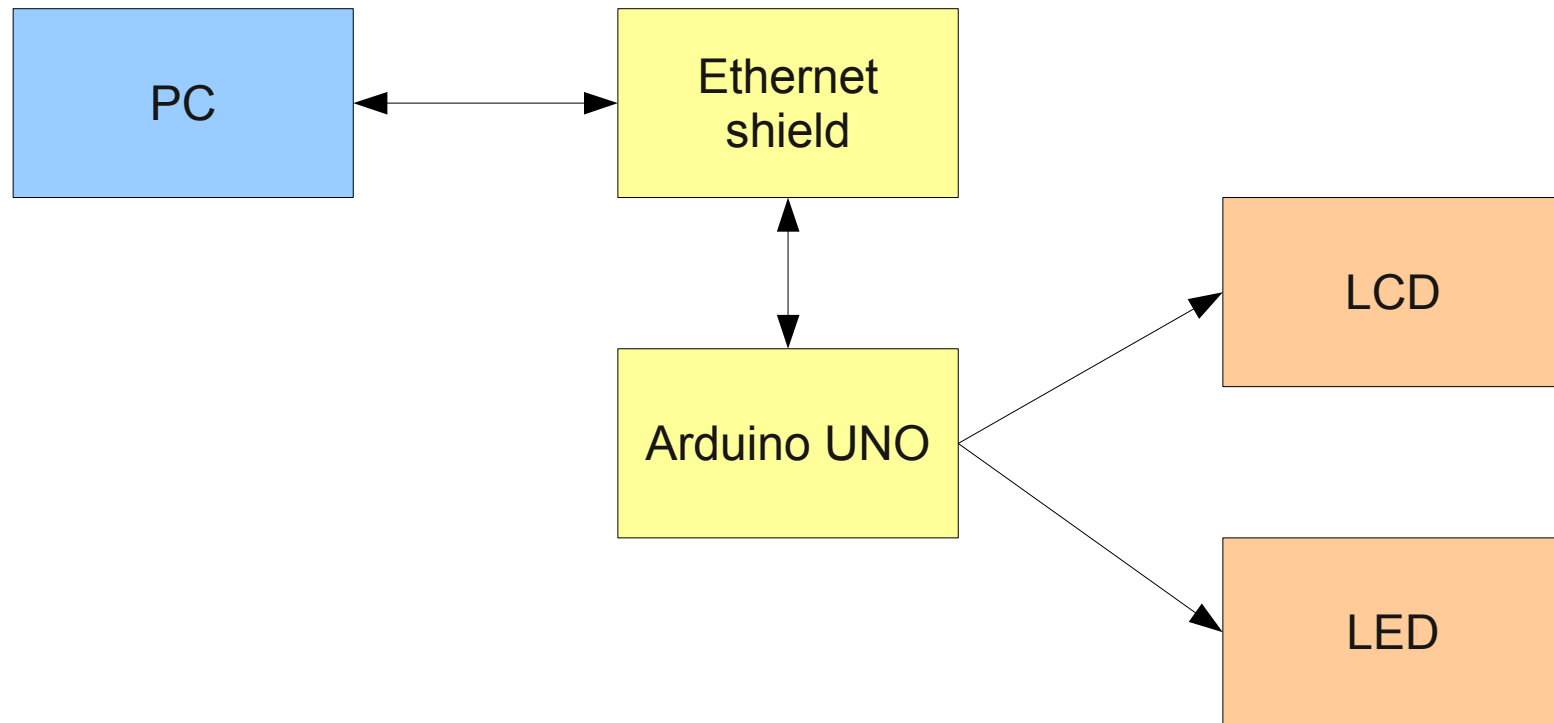
void setup() {
  // initialize the digital pin as an output.
  // Pin 13 has an LED connected on most Arduino boards:
  pinMode(13, OUTPUT);
}

void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);           // wait for a second
  digitalWrite(13, LOW); // set the LED off
  delay(1000);           // wait for a second
}
```

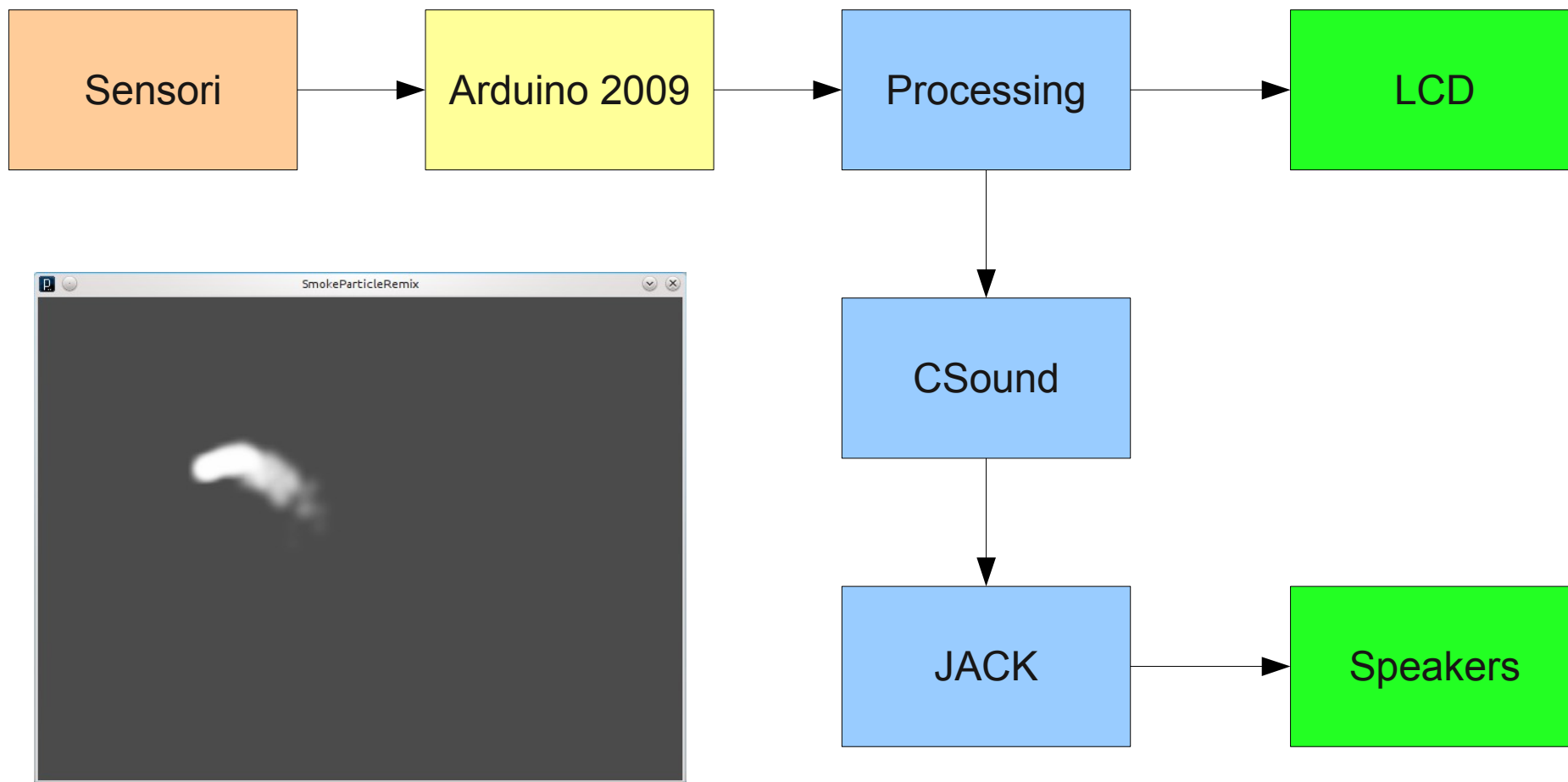
Un paio di esempi



Web server



Visual sounds



Demo



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