Open source hardware

Beagle board, *duino, π

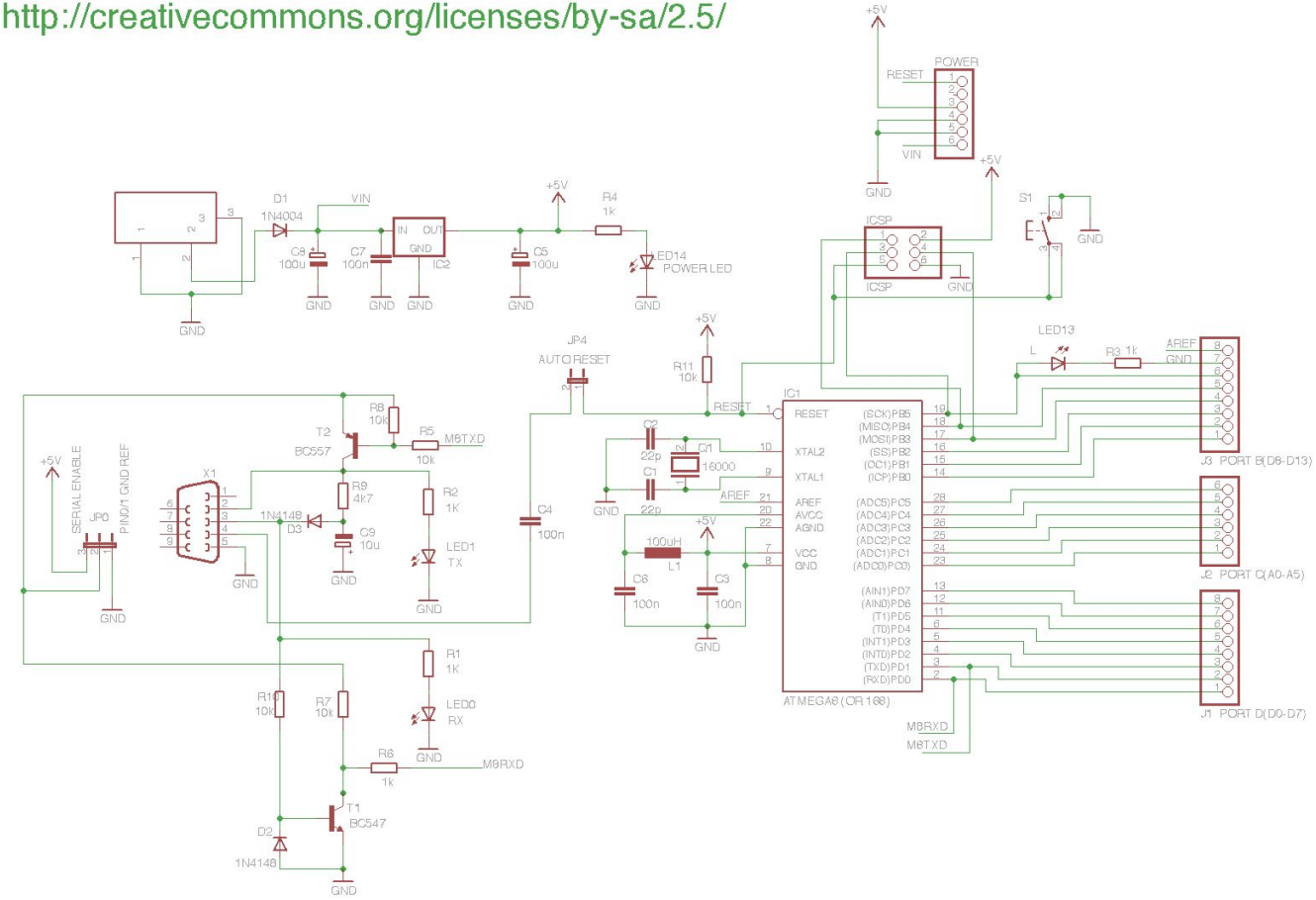
Why OSH

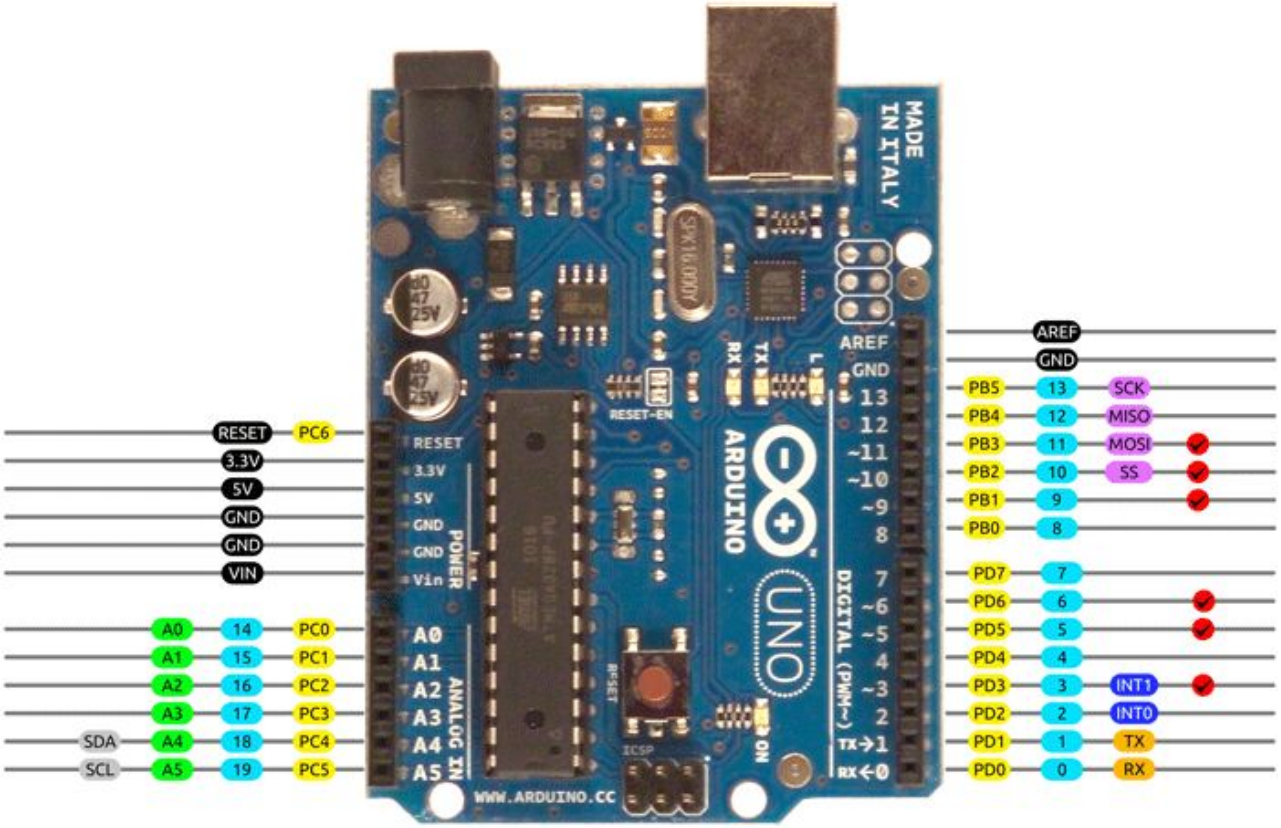
- Allow users to tweak the software and repurpose (Switch OS, FW, drivers etc)
- Extend the supported period (Community patches)
- Pick up manufacturing if the manufacturer drops the product
- Trust - not as simple as OSS (*)
- Education

Examples

- Single board Computers (SBC)
  - Beagle board
  - RPI
  - Banana PI
- Microcontroller boards
  - Arduino
  - Adafruit Feather
  - SparkFun Thing

Arduino S3v3 Revision 2





AVR DIGITAL ANALOG POWER SERIAL SPI I2C PWM INTERRUPT

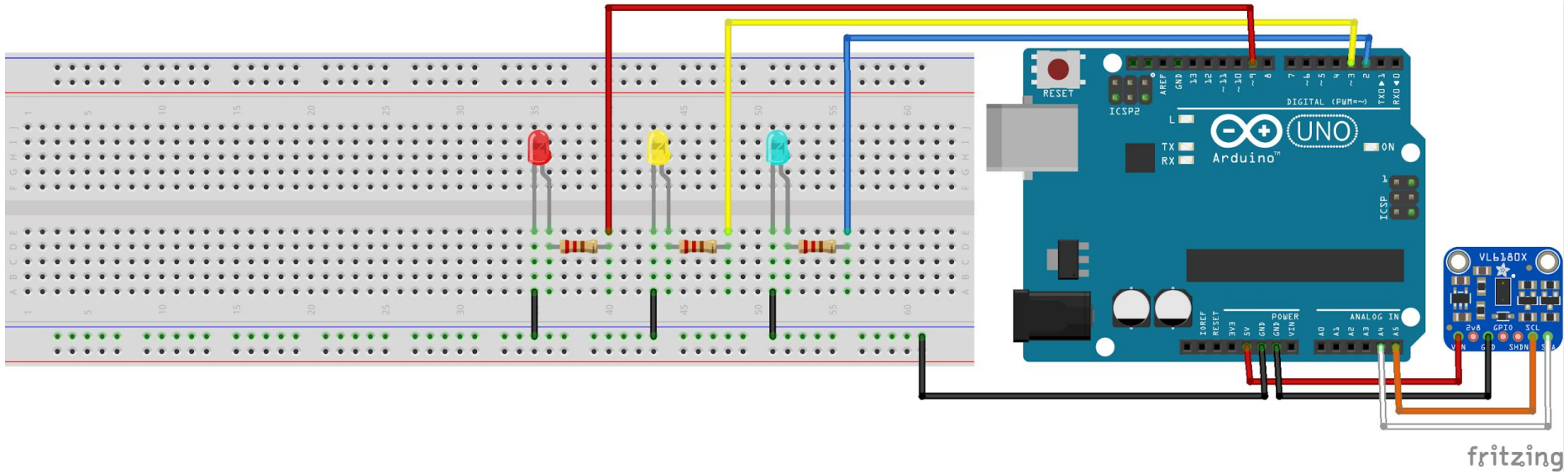
How do I get started?

- Get an Arduino, a bread board, some jumper cables and some basic components
- Download the Arduino IDE
- Dust off your C++(*) skills
- Get cracking!

(*) Or TinyGo, or JS/Python for remote control

Arduino uno - proximity sensor example

- Arduino uno
- Breadboard
- Jumper cables
- 3 LEDs + 3 resistors
- Adafruit VL53L0X distance sensor


RESET
ICSP2
DIGITAL (PWM~)
UNO
Arduino
ON
TX
RX
ICSP
POWER
ANALOG IN
VL6180X
fritzing