Getting Arduino Nano to work on OSX

To enable usb serial:
Download and install from:
 http://raysfiles.com/drivers/ch341ser_mac.zip

or download CH34X_Install from the unit page inside the directory:
Arduino Nano/drivers/mac/CH34X_Install.pkg

Check for your path to the serial port with:
ls /dev/tty.* (should look something like /dev/tty.wchusbserial1420)
This should show all serial usb devices attached to your Mac, test by removing and running above command then replugging in.

To compile (GAVRASM):
Download & install gavrasm

- Follow this link (http://robotics.ee.uwa.edu.au/courses/des/nano/drivers/mac/) to download a pre-compiled copy of gavrasm. This version should work without modification on any Intel-based Mac.

- Open a Terminal window, and use **cd** to change directories to the location where gavrasm was downloaded (e.g., cd ~/Downloads).

- Enter the command **chmod u+x gavrasm** to flag gavrasm as executable.

- Enter the command **sudo mv gavrasm /usr/local/bin** to move gavrasm to the system path, entering your password if prompted.

- Now that gavrasm has been installed, you should be able to compile your AVR assembly code from any Terminal window by navigating to the location of your .asm file(s), and simply entering **gavrasm {$NAME}.asm**, this should create your .hex file in the current directory with the same name as your .asm file.

To send the .hex to the arduino:
Download **avrdude-6.0.1.tar.gz** version of avrdude from:
 http://download.savannah.gnu.org/releases/avrdude/
Decompress the downloaded file and put the decompressed folder in your home directory

In a Terminal window, navigate to the avrdude directory. From your home directory
type: **cd avrdude-6.0.1**
Configure avrdude:
type: **./configure**

Compile avrdude:
type: **make**

Install avrdude:
type: **sudo make install**

To upload (ensure you are in the correct folder):
avrdude -v -p atmega328p -c arduino -P <your_serial_path> -b 57600 -D -U flash:w:<your_hex_filename>:i

Where your serial path is the path found from enabling usb serial eg. **/dev/tty.wchusbserial1420**
And your hex filename is the name of the file to send eg. led.hex