Sanguino V2 Board Operation manual

Bhasha Technologies welcomes you to the wonderful world of physical computing based on the Arduino/ Freeduino culture.

There is no out of the box support for Sanguino within the Arduino IDE Software, but it is very easy to add Support for the Sanguino in the Arduino IDE Software.

Getting Started:

Hardware Materials required:

- Sanguino board
- USB A-B cable
- FTDI Breakout board (sold separately) (for USB Power)
- 9V/1A DC Adapter (for external power)

OR

- Pluggable 9V Battery adapter (sold separately) and 9V Battery

Software Requirements:

- PC running Windows / Linux or Mac with OS X 10.3 or above
- Java Runtime engine
- FTDI Drivers (Download) for Windows only. For Linux/Mac no installation is required.
- Arduino Software IDE (download it here)

OR

Simply purchase Bhasha Software CD which contains everything for you to get started.

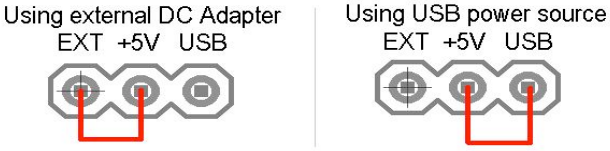
Installing Sanguino Software

Close Arduino IDE if open; Download the Sanguino software from Bhashatech website download section.
Unzip the folder contents into the Arduino\hardware folder.
PRESTO!! It's done...Restart Arduino IDE...to enjoy the new Sanguino

Connections:

- Connect one end of USB A-B cable to the FTDI Breakout board & other end to a PC. The 6 pin relimate connects the FTDI Adapter to Sanguino V2 board. It is a straight forward connection. Just ensure the GND wire from FTDI Adapter goes to GND wire on Sanguino V2 board.

The board is equipped with jumper setting to switch between External DC power adapter source and power via USB. Refer the illustration below to suit your requirements.



Configurations to be done in Arduino Software IDE:

Selecting the board

From the menu options of the IDE, Select **Tools → Board**
BhashaTech Sanguino 644p (if you have ATMEGA644P based board) **OR**
BhashaTech Sanguino 1284p (if you have ATMEGA1284P based board)

Selecting the port

For Linux Users
Port Selection from Arduino Software IDE: Tools Option -> Serial Port -> /dev/ttyUSB0

For Windows Users
Port Selection from Arduino Software IDE: Tools Option -> Serial Port ->Virtual COM3 or Virtual COM6 (based on your PC Configuration)

Running your first program/sketch

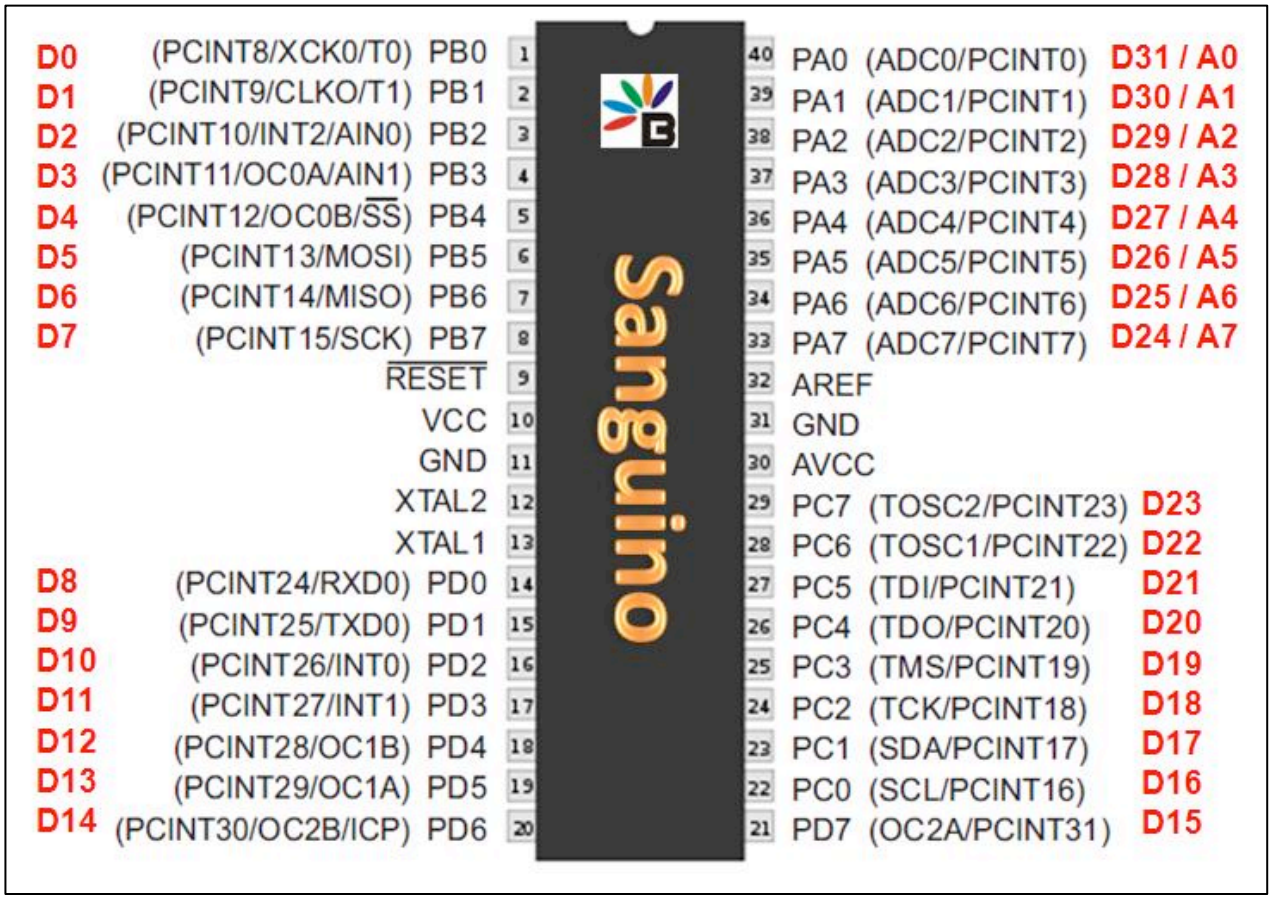
From menu option select File → Examples → Basics → Blink
Compile and Verify the program by clicking the (√) button
The Status bar will display "Done Compiling"

Select File → Upload or click the (→) button
This will upload program to the board

You should see the two LED's on the board flashing. You should see the message "Done Uploading" in the output window of the Arduino IDE software status bar. The program has been successfully uploaded to the board.

CAUTION: Don't click Tools → Program Boot loader, in the Arduino IDE Software. This may corrupt your existing boot loader and the board may not function properly

Sanguino V2 pin mapping diagram



Happy Programming!!!

Bhasha Development Team