Ardui89 Cinque Uno
8051 Family
Based on 8051/89C5x/89C51x/90C51x

8051	Ardui

8051	Ardui
P2.0	16
P2.1	17
P2.2	18
P2.3	19
P2.4	20

8051	Ardui
P2.5	21
P2.6	22
P2.7	23
	/RST
	3V3
	VCC
	GND
	GND
	Vin
	RESET
P0.7	A0
P0.6	A1
P0.5	A2
P0.4	A3
P0.3	A4/SDA
P0.2	A5/SCL

8051	Ardui
P0.1	A6
P0.0	A7

Ardui	8051
15	P3.7
14	P3.6

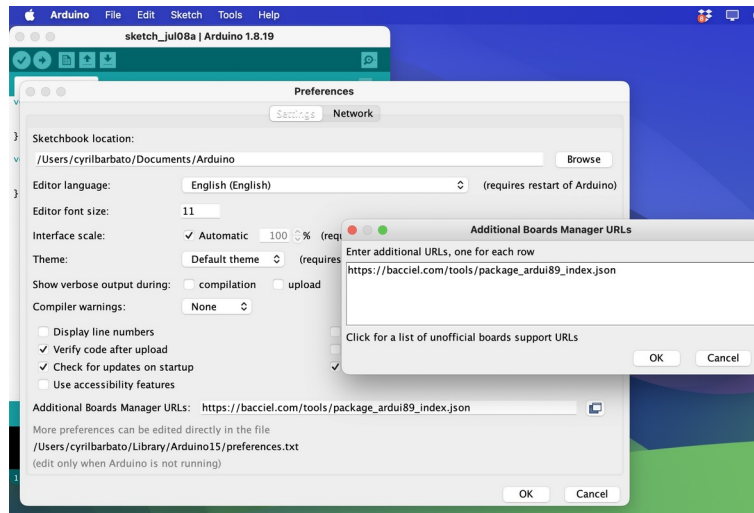| Ardui	8051
A5/SCL	P0.2
A4/SDA	P0.3
nc	
GND	
13	P3.5
12	P3.4
11	P3.3
10	P3.2
9	P1.1
8	P1.0
nc	
7	P1.7
6	P1.6
5	P1.5
4	P1.4
3	P1.3
2	P1.2
1/TxD	P3.1
0/RxD	P3.0

Arduino IDE®

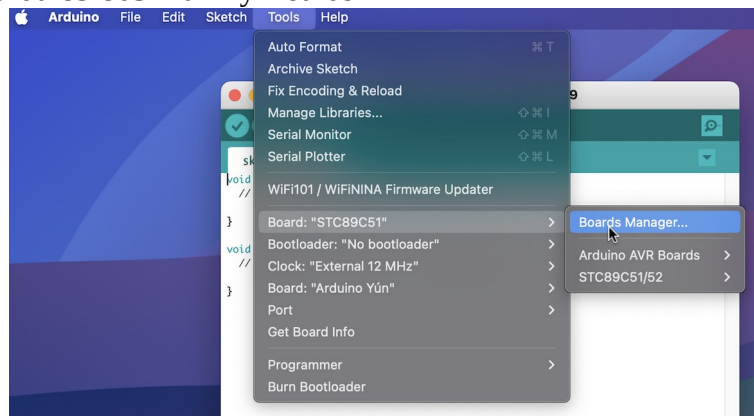**1/ Donwload Arduino >= V1.8.19**

2/ Launch Arduino

3/ In Arduino->Preferences->Additional Board Manager URLS
  add

    http://bacciel.com/tools/package_ardui89_index.json

4/ In Tools->Boards:...->Board Manager
  search "8051"
  select and install "ardui89 8051 family Boards"

5/ In Tools->Board:...
  select "Board : "STC89C51" "STC89C52" "....""

6/ Demos :
  Use Blink.ino in basics examples or in Ardui89_demos path :
  Hello.ino
  Howareyou.ino
  and build and upload !

Materials

Id	Référence	Empreinte	Quantité	Désignation
1	X201	Crystal_HC49-4H_Vertical	1	12MHz
2	J102	Ardu89_Uno_Analog_Power_Connector	1	Conn_01x16
3	R106,R105	R_1206_3216Metric_Pad1.30x1.75mm_HandSolder	2	330
4	C101	C_1206_POL_3216Metric_Pad1.33x1.80mm_HandSolder	1	10µ
5	H2,H3,H4	MountingHole_4.3mm_M4_DIN965	3	MountingHole
6	J105,J103	PinSocket_1x02_P2.54mm_Vertical	2	Extented Port
7	U101	DIP-40_W15.24mm_LongPads	1	89C5x
8	J106	PinHeader_1x03_P2.54mm_Vertical	1	Conn_01x03
9	D200,D3,D2	D_MELF	3	SM34
10	D102,D101	D_1206_3216Metric_Pad1.42x1.75mm_HandSolder	2	1N5819W
11	U2	TSOT-23-5_HandSoldering	1	LP2985-33DBVR
12	X101	Crystal_HC49-U-3PinB_Vertical	1	11.0592MHz
13	U201	SOIC-16_3.9x9.9mm_P1.27mm	1	CH340G
14	J101	Ardu89_Uno_Digital_Connector	1	Conn_01x19
15	R1,R202,R101,R104,R103,R130,R201	R_1206_3216Metric_Pad1.30x1.75mm_HandSolder	7	1k
16	Q101,Q102	TSOT-23_HandSoldering	2	MMBTA2907
17	C104,C203,C102,C5,C3,C4	C_1206_3216Metric_Pad1.33x1.80mm_HandSolder	6	100n
18	C202,C201	C_1206_3216Metric_Pad1.33x1.80mm_HandSolder	2	27p
19	C1,C2,C200	C_2512_Pol_Tantale_Trainning	3	10µ
20	SW101	SW_PUSH_6mm	1	SW_Push
21	D1	D_1206_3216Metric_Pad1.42x1.75mm_HandSolder	1	LED
22	ICSP101	PinHeader_2x03_P2.54mm_Vertical	1	M20-9980346
23	J104	PinSocket_1x05_P2.54mm_Vertical	1	Extended Port
24	D130	D_1206_3216Metric_Pad1.42x1.75mm_HandSolder	1	BUILTIN_LED
25	D201	D_1206_3216Metric_Pad1.42x1.75mm_HandSolder	1	Rx LED

26	D202	D_1206_3216Metric_Pad1.42x1.75mm_HandSolder	1	Tx LED
27	C105,C103	C_1206_3216Metric_Pad1.33x1.80mm_HandSolder	2	22p
28	R102	R_1206_3216Metric_Pad1.30x1.75mm_HandSolder	1	4k7
29	U1	SOT230P700X180-4N	1	LD1117S50TR
30	H1	MountingHole_4.3mm_M4_DIN965	1	Mounting Hole 4.3mm
31	J201	USB_B_Lumberg_2411_02_Horizontal	1	USB_TYPE_B
32	J1	BarrelJack_Horizontal	1	Jack-DC

Examples

```
by Colby Newman

  This example code is in the public domain.

  https://www.arduino.cc/en/Tutorial/BuiltInExamples/Blink
*/
// the setup function runs once when you press reset or power the board
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
  pinMode(LED_BUILTIN, OUTPUT);
}

// the loop function runs over and over again forever
void loop() {
  digitalWrite(LED_BUILTIN, HIGH);   // turn the LED on (HIGH is the voltage lev
  delay(1000);                       // wait for a second
  digitalWrite(LED_BUILTIN, LOW);    // turn the LED off by making the voltage L
  delay(1000);                       // wait for a second
}
```

Done compiling.

```
packihx: read 25 lines, wrote 40: OK.
Sketch uses 520 bytes (12%) of program storage space. Maximum is 4096 bytes.
Global variables use 0 bytes (0%) of dynamic memory, leaving 128 bytes for local
```

1   STC89C51, No bootloader, External 12 MHz

Functions Arduino / Ardui89

analogRead(pin) : not include, todo

digitalWrite(pin, state) : since 0.0.1

digitalRead(pin) : not include, todo

delay(ms) : since 0.0.1

delayMicroseconds(us) : since 0.0.1

int_to_string(int) : since 0.3.10, exclusively in C for 8051

memcpy_P(dest, src, size) : since 0.3.10

pinMode : since 0.0.1

PROMEM : since 0.0.1

8051/prgspace.h : since 0.3.10

Serial89Init() : since 0.0.1 exclusively in C for 8051 architecture. Mandatory for using Serial

Example :

```
// Serial port init
#if defined(ARDUINO_ARCH_8051)
Serial89Init(); // Serial 89 init
#endif

Serial.begin(9600); // Monitor init (F_CPU = 11.0592Mhz)

// Message
Serial.println("Hello, the world !");
```

Serial.begin(bauds) : since 0.0.1

Serial.print(data) : since 0.0.1 like printf in C, not Arduino C++

Serial.println(data) : since 0.0.1 like printf in C, with \n, not Arduino C++

tone(frequency (, duration)) : since 0.0.1