

# Documentation

## msp430-arduino

version 1.2  
by Alexandre BARRAT

## Table of content

Constants . . . . .	3
void pinMode(int pin, int mode) . . . . .	3
void digitalWrite(int pin, int value) . . . . .	3
int digitalRead(int pin) . . . . .	4
void shiftOut(dataPin, clockPin, bitOrder, value) .	4

## Constants

LOW	0
HIGH	1
INPUT	0
OUTPUT	1
INPUT_PULLUP	2
MSBFIRST	7
LSBFIRST	0
LED_BUILTIN	10
PI	3.1415926535897932384626433832795
HALF_PI	1.5707963267948966192313216916398
TWO_PI	6.283185307179586476925286766559
DEG_TO_RAD	0.017453292519943295769236907684886
RAD_TO_DEG	57.295779513082320876798154814105
EULER	2.718281828459045235360287471352
min(a,b)	((a)<(b)?(a):(b))
max(a,b)	((a)>(b)?(a):(b))
abs(x)	((x)>0?(x):-x)
constrain(amt,low,high)	((amt)<(low)?(low):((amt)>(high)?(high):(amt)))
round(x)	((x)>=0?(long)((x)+0.5):(long)((x)-0.5))
radians(deg)	((deg)*DEG_TO_RAD)
degrees(rad)	((rad)*RAD_TO_DEG)
sq(x)	((x)*(x))
lowByte(w)	((uint8_t) ((w) & 0xff))
highByte(w)	((uint8_t) ((w) >> 8))
bitRead(value,bit)	((value) >> (bit)) & 0x01
bitSet(value,bit)	((value)  = (1UL << (bit)))
bitClear(value,bit)	((value) &= ~(1UL << (bit)))
bitToggle(value,bit)	((value) ^= (1UL << (bit)))
bitWrite(value,bit,bitvalue)	((bitvalue) ? bitSet(value,bit) : bitClear(value,bit))
bit(bit)	(pow(2,bit))

```
void pinMode(int pin, int mode)
```

Set the mode of a pin (INPUT/OUTPUT/INPUT\_PULLUP)

### Parameters

pin The pin to set the mode (10-17/20-27).

mode The mode to set (INPUT/OUTPUT/INPUT\_PULLUP)

### Return

```
void digitalWrite(int pin, int value)
```

Write a digital value on a pin.

**Parameters**

pin The pin to modify (10-17/20-27).

value The digital value to write (LOW/HIGH)

**Return**

```
int digitalRead(int pin)
```

Read the value of the given digital pin.

**Parameters**

pin The pin to read (10-17/20-27).

**Return**

value The digital value of the pin (0/1) or -1 if wrong pin.

```
void shiftOut(dataPin, clockPin, bitOrder, value)
```

Shifts out a byte of data one bit at a time.

**Parameters**

dataPin The pin to send data (10-17/20-27).

clockPin The pin for the clock (10-17/20-27).

bitOrder The first bit to shift : most or least significant (MSBFIRST/LSBFIRST).

**Return**