

Some Hardware Functions in Simple Tools

Individual I/O

```
void high (int pin)
    Set an I/O pin to output-high.  
void low (int pin)
    Set an I/O pin to output-low.  
int input (int pin)
    Set an I/O pin to input and return 1 if pin detects a high signal, or 0 if it detects low.
```

More Individual I/O

```
unsigned
    int toggle (int pin)
        Toggle the output state of the I/O pin.  
unsigned
    int reverse (int pin)
        Reverse the direction of an I/O pin.  
unsigned
    int get_state (int pin)
        Check the state of an I/O pin without setting it to input.  
unsigned
    int get_direction (int pin)
        Check the direction of the I/O pin.  
unsigned
    int get_output (int pin)
        Get I/O pin output state.  
void set_direction (int pin, int direction)
        Set an I/O pin to a given direction.  
void set_output (int pin, int state)
        Set I/O pin output register bit to either 1 or 0.
```

Group I/O

```
unsigned
    int get_states (int endPin, int startPin)
        Get states of a contiguous group of I/O pins.  
unsigned
    int get_directions (int endPin, int startPin)
        Get directions for a contiguous group of I/O pins.  
unsigned
    int get_outputs (int endPin, int startPin)
        Get output settings for a contiguous group of I/O pins.
```

void set_directions (int endPin, int startPin, unsigned int pattern)

Set directions for a contiguous group of I/O pins.

void set_outputs (int endPin, int startPin, unsigned int pattern)

Set output states for a contiguous group of I/O pins.

Timing

void pause (int time) // Delay cog from moving on to the next statement for a certain length of time.

Multicore

int * cog_run (void(*function)(void *par), int stacksize)

Run a function's code in the next available cog (processor).

int cog_num (int *coginfo)

Get the cog ID.

void cog_end (int *coginfo)

End function code running in another cog that was launched with cog_run.

Others

void Freqout(int pin, int msTime, int frequency)

long rc_time(int pin, int state)

void pulse_out(int pin, int time)