
pyFirmata Documentation

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Contents:

```

class pyfirmata.pyfirmata.Board(port, layout, baudrate=57600, name=None)
    Base class for any board

    add_cmd_handler(cmd, func)
        Adds a command handler for a command.

    exit()
        Call this to exit cleanly.

    get_firmata_version()
        Returns a version tuple (major, minor) for the firmata firmware on the board.

    get_pin(pin_def)
        Returns the activated pin given by the pin definition. May raise an InvalidPinDefError or a
        PinAlreadyTakenError.

        Parameters pin_def – Pin definition as described in TODO, but without the arduino name. So
        for example a:1:i.

    iterate()
        Reads and handles data from the microcontroller over the serial port. This method should be called in a
        main loop, or in an Iterator instance to keep this boards pin values up to date

    pass_time(t)
        Non-blocking time-out for t seconds.

    send_sysex(sysex_cmd, data=[])
        Sends a SysEx msg.

        Parameters
        • sysex_cmd – A sysex command byte
        • data – A list of 7-bit bytes of arbitrary data (bytes may be already converted to chr's)

    servo_config(pin, min_pulse=544, max_pulse=2400, angle=0)
        Configure a pin as servo with min_pulse, max_pulse and first angle. min_pulse and max_pulse
        default to the arduino defaults.

    setup_layout(board_layout)
        Setup the Pin instances based on the given board-layout. Maybe it will be possible to do this automatically
        in the future, by polling the board for its type.

class pyfirmata.pyfirmata.Pin(board, pin_number, type=2, port=None)
    A Pin representation

```

disable_reporting()

Disable the reporting of an input pin

enable_reporting()

Set an input pin to report values

mode

Mode of operation for the pin. Can be one of the pin modes: INPUT, OUTPUT, ANALOG, PWM or SERVO (or UNAVAILABLE)

read()

Returns the output value of the pin. This value is updated by the boards `Board.iterate()` method. Value is always in the range 0.0 - 1.0

write(value)

Output a voltage from the pin

Parameters value – Uses value as a boolean if the pin is in output mode, or expects a float from 0 to 1 if the pin is in PWM mode. If the pin is in SERVO the value should be in degrees.

class `pyfirmata.pyfirmata.Port` (*board, port_number, num_pins=8*)

An 8-bit port on the board

disable_reporting()

Disable the reporting of the port

enable_reporting()

Enable reporting of values for the whole port

write()

Set the output pins of the port to the correct state

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