pyFirmata Documentation

Release 0.1

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February 08, 2015
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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, mino) 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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