eBot API

class `eBot.eBot` [source]

`acceleration()` [source]

Retrieves and returns accelerometer values; absolute values of X,Y and theta coordinates of robot with reference to starting position.

Return type: list

Returns: acc_values: Accelerometer values

`buzzer(btime, bfreq)` [source]

Plays the buzzer for given time at given frequency.

Parameters:
- **btime** – Time in Seconds
- **bfreq** – Frequency in Hertz

`calibration_values()` [source]

Retrieves and returns the calibration values of the eBot.

Return type: list

Returns: all_Values (calibration values)

`close()` [source]

Close BLE connection with eBot.

`connect()` [source]

Opens connection with the eBot via BLE. Connects with the first eBot that the computer is paired to.

Raises Exception:

No eBot found

`destroy()` [source]

Destructor function for eBot class.

disconnect() [source]

Close BLE connection with eBot.

getOpenPorts() [source]

Windows only function: Obtains a list of tuples with eBot-relevant port number and description.

Return type: list

Returns: devicePorts: list of port numbers and descriptions of relevant serial devices.

halt() [source]

Halts the eBot, turns the motors and LEDs off.

imperial_march() [source]

led(bool) [source]

Controls the state of the LED on the eBot.

Parameters: **bool** – Defines whether the LED should turn ON (1) or OFF (0)

led_off() [source]

Turns the LED on the eBot OFF.

led_on() [source]

Turns the LED on the eBot ON.

light() [source]

Retrieves and returns a list of tuples with the light index. 0 index is front and 1st index is top LDR readings.

:rtype : list :return: ldrvalue: LDR Readings

lostConnection() [source]

Handler for the case that the computer loses connection with the eBot

Raises Exception:

Robot Connection Lost

obstacle() [source]

Tells whether or not there is an obstacle less than 250 mm away from the front of the eBot.

Return type: bool

Returns: True if obstacle exists

open() [source]

Opens connection with the eBot via BLE. Connects with the first eBot that the computer is paired to.

Raises Exception:

No eBot found

port_close() [source]

Closes the COM port that corresponds to the eBot object.

Raises Exception:

Could not close COM port

port_name() [source]

Returns port name of currently connected eBot.

Returns: port: Port name

port_open() [source]

Still under development, currently just calls connect

position() [source]

Retrieves and returns position values of the eBot.

Return type: list

Returns: pos_values: X,Y,Z position values

power() [source]

Returns:

robot_uS() [source]

Retrieves and returns all six ultrasonic sensor values from the eBot in meters.

Return type: list

Returns: sonarValues

`temperature()` [source]

Retrieves and returns temperature reading from the eBot.

Return type: int

Returns: Temperature value.

`wheels(LS, RS)` [source]

Controls the speed of the wheels of the robot according to the specified values

Parameters:
- **LS** – Speed of left motor
- **RS** – Speed of right motor

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