Commonly Used eBot API

Connections

eBot.connect()

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

Raises: **Exception** – No eBot found

eBot.disconnect()

Close BLE connection with eBot.

Outputs

eBot.buzzer(*btime*, *bfreq*)

Plays the buzzer for given time at given frequency.

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

eBot.led(*bool*)

Controls the state of the LED on the eBot.

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

eBot.led_on()

Turns the LED on the eBot ON.

eBot.led_off()

Turns the LED on the eBot OFF.

eBot.wheels(*LS*, *RS*)

Controls the speed of the wheels of the robot according to the specified values :param LS: Speed of left motor :param RS: Speed of right motor

eBot.wheel_calibrate(*LS*, *RS*)

Controls the speed of the wheels of the robot according to the specified values :param LS: Speed of left motor :param RS: Speed of right motor

Outputs

eBot.acceleration()

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

eBot.light()

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

Return type: list
Returns: ldrvalue: LDR Readings

`eBot.obstacle`()

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

`eBot.odometry`()

Retrieves and returns the odometry values of the eBot as a Pose object with respect to the robot initial position. Pose.x: x coordinate in meters Pose.y: y coordinate in meters Pose.theta: rotation in radians

Return type: Pose object
Returns: Pose: Represent the x, y, theta pose of an object in 2D space

`eBot.sonars`()

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

Return type: list
Returns: sonarValues

`eBot.temperature`()

Retrieves and returns temperature reading from the eBot.

Return type: int
Returns: Temperature value.