Arduino Python

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Chapter 1

Namespace Index

1.1 Packages

Here are the packages with brief descriptions (if available):

Counter 3

Chapter 2

Namespace Documentation

2.1 Counter Namespace Reference

Functions

- def insert (cnx, cursor, inOrOut)
- def dbConnect ()
- def readfromArduino ()
- def **signal_handler** (sig, frame)

Variables

- **board** = PyMata("COM3", verbose=True)

2.1.1 Detailed Description

```
This file is the code that gets loaded onto the Arduino. It is constantly polling the 2
ultrasonic sensors attached to the Arduino to see if anything has passed through the sensors
and in what direction they went. Once it has been determined that someone went through the
sensor and what direction they went, it calls the insert() function to insert an entry into
the database with the location, direction, and DateTime stamp.
```

2.1.2 Function Documentation

2.1.2.1 def Counter.dbConnect ( )

```
Connects to the database using my credentials and the mysql password. Will print out a string
depeding on the status of the connection i.e.: whether if failed or not and why.
:return:
```

2.1.2.2 def Counter.insert (*cnx, cursor, inOrOut*)

```
This function inserts an entry into the database. Will insert the location (should be the Student
Recreation Center but can be changed), a boolean value as to whether the subject exited or entered,
the day of the week in number format (using the mysql dayofweek(now()) function) and a DateTime
stamp (using mysql now() function)
:param cnx:
:param cursor:
:param inOrOut:
:return: Boolean
```

2.1.2.3 def Counter.readfromArduino ( )

```
This function reads data in from HC-SR04 (ultrasonic) sensors and registers a pedestrian
entering/exiting based on proximity and which sensor is triggered first. It inserts this data
into the MySQL database, passing in whether the pedestrian was entering or exiting
:return:
```

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