

BBM Python Mates Controller Library

Introduction

This library is developed to easily control Breadboard Mates modules from any computer that can run Python and connects with a BBM display module using a BBM Programmer or similar. This is based on the [Python Mates Controller library](#). Therefore, all methods are directly derived from it.

Supported Devices

This library is developed for Python3 and designed to be used with any operating system as long as it is supported by the `pyserial` library and the BBM display module is connected using a BBM Programmer.

Installation

This library can be installed from the Python Packaging Index (PyPI) by running the command:

```
pip3 install bbm-mates-controller
```

Constructors

This section serves to provide brief discussion about the constructors that can be used to initialize the library.

MatesController(portName, resetFunction, debugStream, debugFileLength)

Constructs all the necessary attributes associated with an instance of a Mates Controller Object.

| Parameters | Type | Description |
|-------------------------------|------------------|---|
| portName | str | the name of the port to be opened. Example: <code>/dev/ttyUSB0</code> for Linux |
| debugStream (optional) | io.TextIOWrapper | text file object to write debugging code to, supply of none will result in no debugging. Ex. <code>sys.stdout</code> , <code>open('log.txt', 'r+')</code> |
| debugFileLength (optional) | int | determines the extent of debug history kept with respect to lines in a file, given a circular log. 0 indicates full history kept with no circular logging. Users must be careful here to manage storage space effectively |

Note

If a debug file is specified, it should be opened using either 'w+' or 'r+' before running the `begin()` function of this library.

Example

Simple Specify Debug Output

```
# Creates a new instance
named 'mates' which
utilizes:
# - COM10 as the serial
port
# - with no reset
function and no output
stream
MatesController mates =
MatesController("COM10")
```

```
# Creates a new instance
named 'mates' which
utilizes:
# - COM7 as the serial
port
# - output_file as
debug file stream
# - debugFileLength of
zero indicating no
circular logging
MatesController mates =
MatesController("COM7",
debugStream=output_file,
debugFileLength=0)
```

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[Python Mates Controller library](#)