

# 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:<br><code>/dev/ttyUSB0</code> for Linux  |
| debugStream<br>(optional)     | io.TextIOWrapper | text file object to write debugging code to, supply of none will result in no debugging. Ex. <code>sys.stdout</code> ,<br><code>open('log.txt', 'r+')</code>  |
| debugFileLength<br>(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)
```

**N**

All  
ins

[Python Mates Controller library](#)