

Python

Install gclib

The gclib Python wrapper assumes the default gclib [installation](#) location.

Install Python

- See <https://www.python.org/> if Python is not already installed on the system. The gclib Python wrapper supports Python versions 2 and 3.
- On Windows, choose to add Python to the environment variable during installation. This allows Python to be invoked from the command line.

Install the gclib Python module

Windows

- Type the following commands into a [command prompt](#).

```
C:\Users\username>cd Desktop
C:\Users\username\Desktop>mkdir python_temp
C:\Users\username\Desktop>cd python_temp
C:\Users\username\Desktop\python_temp>copy "c:\Program Files (x86)\Galil\gclib\source\wrappers\python\*" .
C:\Users\username\Desktop\python_temp>copy "c:\Program Files (x86)\Galil\gclib\examples\python\*" .
C:\Users\username\Desktop\python_temp>python setup.py install
running install
running build
running build_py
creating build
creating build\lib
copying gclib.py -> build\lib
running install_lib
copying build\lib\gclib.py -> C:\Python34\Lib\site-packages
byte-compiling C:\Python34\Lib\site-packages\gclib.py to gclib.cpython-34.pyc
running install_egg_info
Writing C:\Python34\Lib\site-packages\gclib-1.0-py3.4.egg-info
```

- The gclib Python wrapper is now installed. Go to the next section, **Using gclib from the Python Interpreter**.

Linux

- Type the following commands into a Terminal prompt.

```
$ mkdir ~/python_temp
$ cd ~/python_temp/
$ tar -xvf /usr/share/doc/gclib/src/gclib_python.tar.gz
gclib.py
setup.py
$ tar -xvf /usr/share/doc/gclib/src/gclib_python_examples.tar.gz
example.py
$ sudo python setup.py install
[sudo] password for user:
running install
running build
running build_py
creating build
creating build/lib
copying gclib.py -> build/lib
running install_lib
copying build/lib/gclib.py -> /usr/lib/python2.7/site-packages
byte-compiling /usr/lib/python2.7/site-packages/gclib.py to gclib.pyc
running install_egg_info
Writing /usr/lib/python2.7/site-packages/gclib-1.0-py2.7.egg-info
```

- The gclib Python wrapper is now installed. Go to the next section, **Using gclib from the Python Interpreter**.

OS X

- Be sure that the *Create Environment Variable* step has been followed in the **OS X** installation instructions.
- Type the following commands into a Terminal prompt.

```
$ mkdir ~/python_temp
$ cd ~/python_temp/
```

```
$ tar -xvf /Applications/gclib/source/gclib_python.tar.gz
x gclib.py
x setup.py
$ tar -xvf /Applications/gclib/examples/gclib_python_examples.tar.gz
x example.py
$ sudo python setup.py install
running install
running build
running build_py
creating build
creating build/lib
copying gclib.py -> build/lib
running install_lib
copying build/lib/gclib.py -> /Library/Python/2.7/site-packages
byte-compiling /Library/Python/2.7/site-packages/gclib.py to gclib.pyc
running install_egg_info
Writing /Library/Python/2.7/site-packages/gclib-1.0-py2.7.egg-info
```

- The gclib Python wrapper is now installed. Go to the next section, **Using gclib from the Python Interpreter**.

Using gclib from the Python Interpreter

- Invoke the [Python Interpreter](#).
- Type the following into the Python prompt.

```
>>> import gclib
>>> g = gclib.py()
>>> g.GOpen('192.168.0.42 --direct')
>>> print(g.GInfo())
192.168.0.42, DMC4080 Rev 1.2c, 783
```

Running Python scripts

- Navigate the terminal to the location from **Install the gclib Python module** where example.py was copied.
- Open *example.py* in a text editor.
- Set the address in the g.GOpen() call to match an available connection.

- Execute the following command at the Terminal.

```
$ python example.py
gclib version: py.127.110.250
192.168.0.42, DMC4080 Rev 1.2c, 783
```

- Experiment with the example by uncommenting sections, between the triple quotes, "".

```
$ python example.py
gclib version: py.127.110.250
192.168.0.42, DMC4080 Rev 1.2c, 783
GProgramDownload() correctly errored. Can't fit with level 3 compression
Uploaded program:
#A;i=0;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1
i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;i=i+1;EN
Downloaded program verified
Array element verified
 187942.0000

Starting move...
done.
```

Getting help

```
>>> help(g.GOpen)
Help on method GOpen in module gclib:

GOpen(address) method of gclib.py instance
    Opens a connection a galil controller.
    See the gclib docs for address string formatting.
    See Link GOpen() <http://www.galil.com/sw/pub/all/doc/gclib/html/gclib\_8h\_aef4aec8a85630eed029b7a46aea7db54.h>

>>> help(g.GCommand)
Help on method GCommand in module gclib:

GCommand(command) method of gclib.py instance
```

Performs a command-and-response transaction on the connection.

Trims the response.

See Link GCommand() <http://www.galil.com/sw/pub/all/doc/gclib/html/gclib_8h_a5ac031e76efc965affdd73a1bec084a

```
>>> 'for a full listing, try help(g) '
```