**CHEMYX Syringe Pump Python Instructions**

To send commands to your CHEMYX syringe pump using simple python script, follow these steps.

1. **Install Python**
   1. **Basic Installation**
      1. Download current Python version from <https://www.python.org/downloads/>
      2. Open downloaded file and follow prompts to install Python.
   2. **Anaconda Installation**
      1. Download current Anaconda version from <https://www.anaconda.com/>
      2. Open downloaded file and follow prompts to install Anaconda
   3. **Ensure that necessary packages are installed in your python environment.**
      1. Python basic installation:
         1. Open Command Prompt (Windows) or Terminal Application (Mac)
         2. PyQT5 - “python -m pip install PyQT5”
         3. PySerial - “python -m pip install pyserial”
      2. Anaconda installation:
         1. Open Anaconda Navigator
         2. Launch CMD.exe Prompt
         3. PyQT5 - “python -m pip install PyQT5”
         4. PySerial - “python -m pip install pyserial”
2. **Run relevant python script in your Python IDE.**
   * 1. **singlestep.py** Single step run on single-channel pumps
     2. **multistep.py** Multi step run on single-channel pumps
     3. **2channel\_singlestep.py** Single step run on dual-channel pumps
     4. **2channel\_cycle.py** Cycle mode run on dual-channel pumps
   1. Baud rate in script must match value of the syringe pump, which can be found and changed in “System Settings”
   2. Parameters can be modified according to required experiment specifications.
3. **Disconnect from Pump**
   1. After running the script, serial connection will remain open until disconnected.
      1. Call “conn.closeConnection()” to close connection to pump.
      2. Alternatively, unplugging Syringe Pump from USB port will close the connection.