Instructions

1. Download the latest copy of the API DLL for your product

Visit the product page for your product and look for the C# API download. For example, for the SMD4 visit the link below, and look for the downloads tab at the bottom of the page. https://arunmicro.com/products/smd4-stepper-motor-drive/

2. Download the pythonnet library

Pythonnet is a python library that allows developers to integrate .NET code within python. More information about pythonnet can be found here. htttps://pypi.org/project/pythonnet/

To install pythonnet via pip use the following command:

```
pip install pythonnet
```

3. Importing the API

Add a reference to the required dll, for example:

```
import clr
clr.AddReference(r"C:\source\SMD3API.dll")
from SMD3API import SMD3
```

4. Using the API

Example code for the SMD3, demonstrating connecting to the drive and moving the motor.

```
import clr
import time
clr.AddReference(r"C:\source\SMD3API.dll")
from SMD3API import SMD3

# Create an instance of the SMD3
smd3=SMD3()

# Auto connect to the first SMD3 device found
smd3.Connect("COM")

# Choose a temperature sensor
smd3.SensorSelect = Tsel.Thermocouple

# Move 100 steps in the positive direction
smd3.MoveRelative(100)
```

Example code for the SMD4, demonstrating connecting to the drive and moving the motor.

```
import clr
import time
clr.AddReference(r"C:\source\SMD4API.dll")
from Aml.Equipment.SMD4Api import *

# Create an instance of the SMD4
smd4=SMD4()

# Auto connect to the first SMD4
smd4.Connect()

# Move motor in clockwise direction
smd4.MoveClockwise()

# Wait 5 seconds
time.sleep(5)

# Stop motor
smd4.Stop()
```