

# Python Sample Instruction Manual

## Instruction

This sample is a Python sample for the Sigma koki' s controller.

You can use this sample as a reference or include it in any project to simplify your programming.

You are free to use the samples, but please note that we are not responsible for the content or behavior of your program.

## 1. Environment

Python 3.x

- \* If you are using in an environment other than the above, please set the operation according to your environment.
- \* tkinter is used for GUI and pyserial is used for serial communication.

## 2. How to use

Open the sample source code file (XXXXXXX.py).

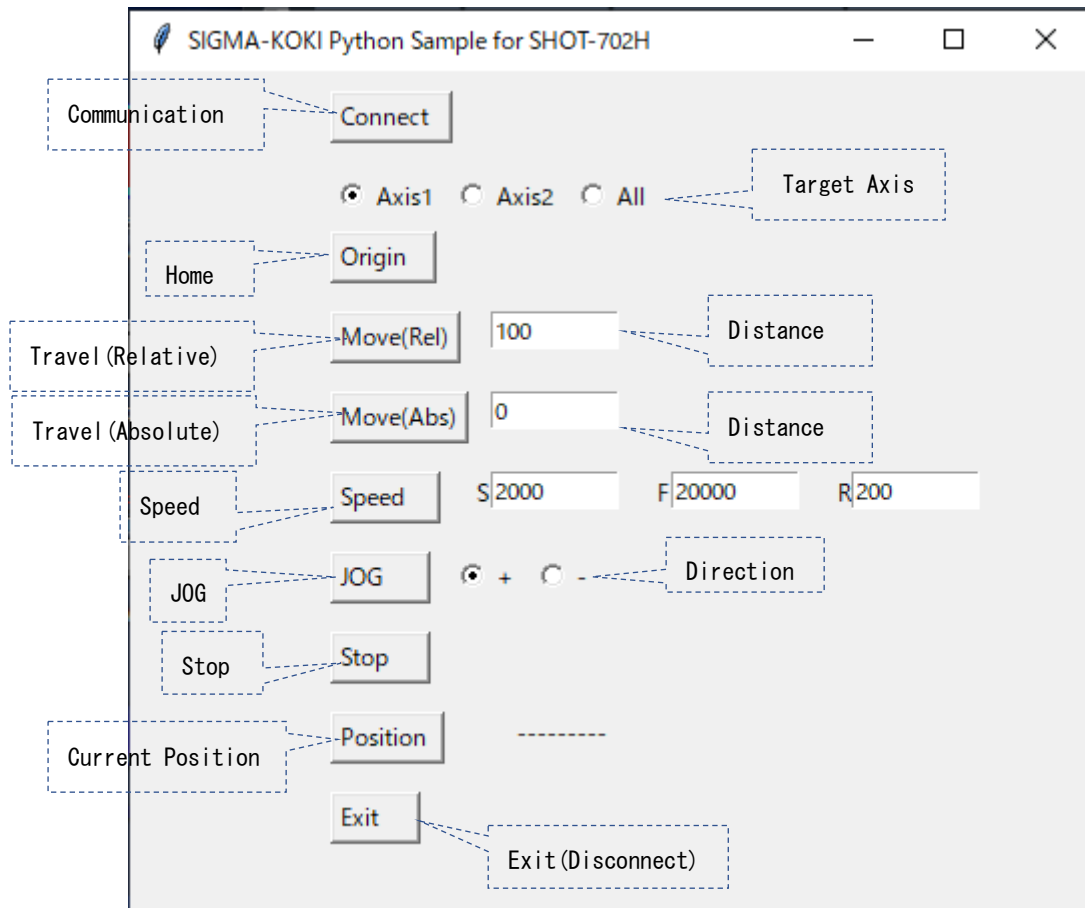
Please refer to the contents of the sample and use it for your own programming.

```
1  # -*- coding: utf-8 -*-
2  """
3  Spyder Editor
4
5  This is a temporary script file.
6  """
7
8  import serial
9  import tkinter as tk
10 import time
11 import sys
12
13 ser = None
14
15
16 def click_Comm():
17     global ser
18     ser = serial.Serial('COM7')
19     ser.baudrate=38400
20     ser.BYTESIZES=serial.EIGHTBITS
21     ser.PARITIES=serial.PARITY_NONE
22     ser.STOPBITS=serial.STOPBITS_ONE
23     ser.timeout=1
24     ser.rtscts=True
25
26 def click_Origin():
27     global ser
28     if ser == None:
29         return
```

When you run the program, the operation screen shown below will be displayed.

\*The contents of the window differ depending on the model.

Click the button to perform each function.



\*Communication conditions can be set/changed using the click\_Comm function.

```
def click_Comm():  
    global ser  
    ser = serial.Serial('COM7')  
    ser.baudrate=38400  
    ser.BYTESIZES=serial.EIGHTBITS  
    ser.PARITIES=serial.PARITY_NONE  
    ser.STOPBITS=serial.STOPBITS_ONE  
    ser.timeout=1  
    ser.rtscts=True
```

### 3. Function

The sample mainly has the control functions shown below.

\* Contents and types vary depending on the model.

Function Name	Function	Contents
Click_Comm	Communication connection	Connect communication and perform initial settings of the controller.
Click_Origen	Mechanical origin return	Performs mechanical origin return.
Click_MoveRel	Relative position move	Performs relative position move
Click_MoveAbs	Absolute position move	Performs absolute position move
Click_Speed	Set speed	Set the set speed
Click_JOG	JOG movement	Performs JOG movement.
Click_Stop	Stop	Stop the stage
Click_Status	Get current position	Get the current position.
Click_Exit	End (disconnect communication)	Disconnect communication and terminate the program.