**Bojay PLC control API manual**

FileName: bojay\_o6touch\_motor\_control.py

Version : V0.0.1

Date: 2020.11.2

Company:Bojay

1. OpenSerial()

Parameters:

None

Function:

Open PLC serial port

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

2. CloseSerial()

Parameters:

None

Function:

Close PLC serial port

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

3: GetCurrentCoordinate(ofWhatAxis)

Parameters:

ofWhatAxis = ObjectName. Axis\_x/ ObjectName .Axis\_y/ ObjectName .Axis\_z

Function:

Get the current coordinate of x/y/z axis

Returns:

-9999:Fail

other:the coordinate of axis

ErrorMessage:

Call GetErrorMessage()

4: MoveToCoordinates(ofWhatAxis,Value,timeout)

Parameters:

ofWhatAxis = ObjectName. Axis\_x/ ObjectName .Axis\_y/ ObjectName .Axis\_z

Value = Float value of the specified coordinates

timeout = Wait maximum time

Function:

Moves the x/y/z axis to a specified coordinates

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

5. SetStepValue(ofWhatAxis,Value)

Parameters:

ofWhatAxis = ObjectName. Axis\_x/ ObjectName .Axis\_y/ ObjectName .Axis\_z

Value = The Value of step

Function:

Set step value

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

6. MoveStep(ofWhatAxis)

Parameters:

ofWhatAxis = ObjectName. Axis\_x/ ObjectName .Axis\_y/ ObjectName .Axis\_z

Function:

Moves step by your set value

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

7. SetSpeed(ofWhatAxis,Value)

Parameters:

= ofWhatAxis = ObjectName. Axis\_x/ ObjectName .Axis\_y/ ObjectName .Axis\_z

Value = Float value of the speed value

Function:

Set the speed of the x/y/z axis

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

8. GetSpeed(ofWhatAxis)

Parameters:

ofWhatAxis = ObjectName. Axis\_x/ ObjectName .Axis\_y/ ObjectName .Axis\_z

Function:

Get the speed of the x/y/z axis

Returns:

other: speed value

-1: Fail

ErrorMessage:

Call GetErrorMessage()

9. SetLimit(ofWhatLimit,ofWhatAxis,Limit)

Parameters:

ofWhatLimit = ObjectName.MaxLimit

/ ObjectName.MinLimit

ofWhatAxis = ObjectName. Axis\_x/ ObjectName .Axis\_y/ ObjectName .Axis\_z

Limit = the value of the limit

Function:

Set the Max / Min limit of x/y/z axis

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

11. GetLimit(ofWhatAxis,ofWhatLimit)

Parameters:

ofWhatAxis = ObjectName. Axis\_x/ ObjectName .Axis\_y/ ObjectName .Axis\_z

ofWhatLimit = ObjectName.MaxLimit / ObjectName.MinLimit

Function:

Get Max / Min limit of x/y/z axis

Returns:

other:the limit value

-9999: Fail

ErrorMessage:

Call GetErrorMessage()

12. SignalReset(timeout)

Parameters:

timeout : wait max time,the unit is second

Function:

Reset fixture

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

13.DUTLockOrUnlock( state)

Parameters:

state = ObjectName.UnlockDUT/ObjectName.LockDUT

Function:

Unlock/Lock device under test.

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

14. SynchronousXY ( xValue,yValue,timeout)

Parameters:

xValue = x axis move distance

yValue = y axis move distance

Function:

Move x/y axis to specified position.

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

15. USBEnableOrDisable ( state, whichUSB)

Parameters:

state = ObjectName .EnableUSB/ ObjectName.DisableUSB

whichUSB = ObjectName.USB1/ ObjectName.USB2/ ObjectName.USB3/ ObjectName.USB4/ ObjectName.USB\_ALL

Function:

Insert/release usb module to device under test

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

16. USBEnableOrDisable ( state, whichUSB)

Parameters:

state = ObjectName .EnableUSB/ ObjectName.DisableUSB

whichUSB = ObjectName.USB1/ ObjectName.USB2/ ObjectName.USB3/ ObjectName.USB4/ ObjectName.USB\_ALL

Function:

Insert/release usb module to device under test

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

17. ZAxisCylinderUpOrDown ( state, whichCylinder)

Parameters:

state = ObjectName . ZAxis\_down/ ObjectName. ZAxis\_up

whichUSB = ObjectName. ZAxisCylinder\_front/ ObjectName. ZAxisCylinder\_middle/ ObjectName. ZAxisCylinder\_back

Function:

Driver z-axis cylinder up or down

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()

18. Set\_CylindeFunction ( state)

Parameters:

state = ObjectName . Cylinder\_IN/ ObjectName. Cylinder\_OUT

Function:

send hold board into or come back

Returns:

0: Success

-1: Fail

ErrorMessage:

Call GetErrorMessage()