

Using Motion Platform as a joystick

Quick Guide



Picture 1 Motion Platform joysticks and pedals

1. Using the joysticks

The joysticks can be easily used with two ways. Either by utilizing “vJoy” virtual joystick, or by directly reading the values from the provided Python-script. There are 20 channels for use, 8 for analogic channels and 12 for digital channels.

1.1 vJoy

As of 27.11.2023, the vJoy-virtual joystick can be initialized by running “joystick.bat” file from the desktop. While the .bat file is kept running in the background, the joysticks can be mapped and used like a regular gamepad.

1.2 Direct readings

For more specific needs, the joystick values can also be read directly by utilizing *motionplatf_controls* -Python script. As of 27.11.2023, the script can be found in the Motion Platform GitHub -directory.

Please see 2. Channel Mappings for channel numbers.

1.2.1 Utilizing the Python script

As of 27.11.2023, the *motionplatf_controls* can be utilized by copying it (or specifying a path to it) to the project folder and importing it as a module.

DataOutput-class takes two arguments: *simulation_mode* and *decimals*. With the *simulation_mode*, user can test the scripts without the need to have any NI-devices or drivers installed. The argument takes Boolean arguments True/False. When set to True, the script will output random values.

With the *decimals*-argument user can set how much rounding is done to the values before they are returned. The argument takes in integers, and it sets the number of decimal numbers the script will take account.

Without giving these arguments, the class will be initialized with default values, *simulation_mode=False*, *decimals=3*.

Values from the joystick can be outputted as a list (all values), or as a tuple containing two lists (analogic and digital values). The desired output type can be selected with argument *combine*, which takes in Boolean values True/False. Default is *combine=True*.

```
1 import motionplatf_controls
2 from time import sleep
3
4 joysticks = motionplatf_controls.DataOutput(simulation_mode=True)
5
6 while True:
7     values = joysticks.read(combine=False)
8     print(values)
9     sleep(0.2)
10
```

Picture 2. Example usage. DataOutput will output a tuple, containing lists for analogic and digital values.

Values are always in float-format, and they will range between -1...+1. Digital Boolean values will change between 0.0 and 1.0. Output will always first contain the 8 analogic channels, and then the 12 digital channels.

2. Channel Mappings

Channel	Type	Name
0	A	Right stick L/R
1	A	Right stick U/D
2	A	Right rocker switch
3	A	Left stick L/R
4	A	Left stick U/D
5	A	Left rocker switch
6	A	Right pedal
7	A	Left pedal
8	D	Right stick rocker up
9	D	Right stick rocker down
10	D	Right stick button rear
11	D	Right stick button bottom
12	D	Right stick button top
13	D	Right stick button middle
14	D	Left stick rocker up
15	D	Left stick rocker down
16	D	Left stick rear button
17	D	Left stick button top
18	D	Left stick button bottom
19	D	Left stick button middle