

VirtuaTilt – Pinball M Setup

Following some basic instructions to have your new VirtuaTilt up and running with Pinball M and its new DOFLinx support (full feedback!).

Download **DOFLinx** latest package from here: [Releases · DOFLinx/DOFLinx \(github.com\)](https://github.com/DOFLinx/DOFLinx/releases)

NOTE: Latest DOFLinx is required for Pinball M.

Please always refer to official DOFLinx guides available at:

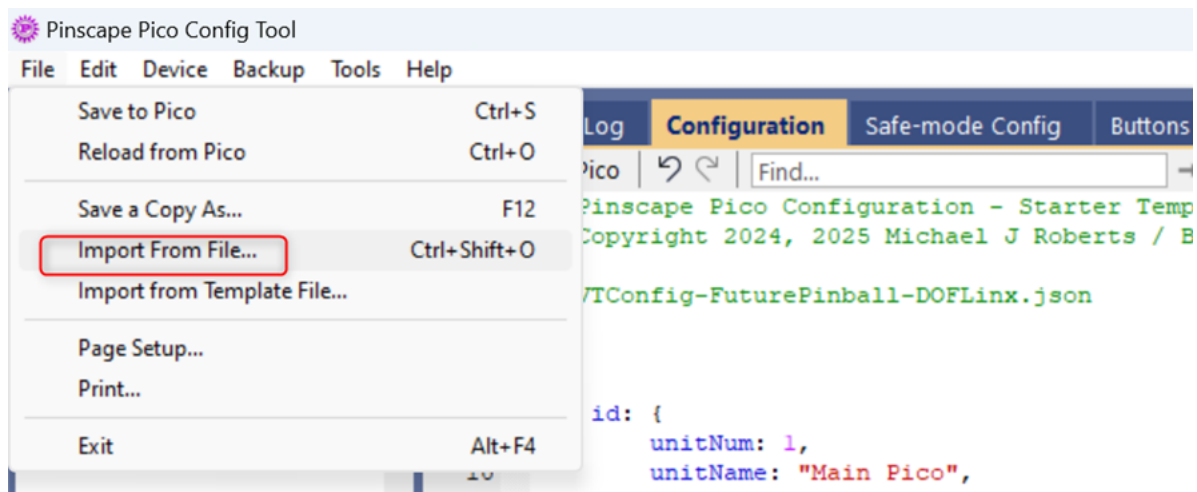
<https://doflinx.github.io/docs/>

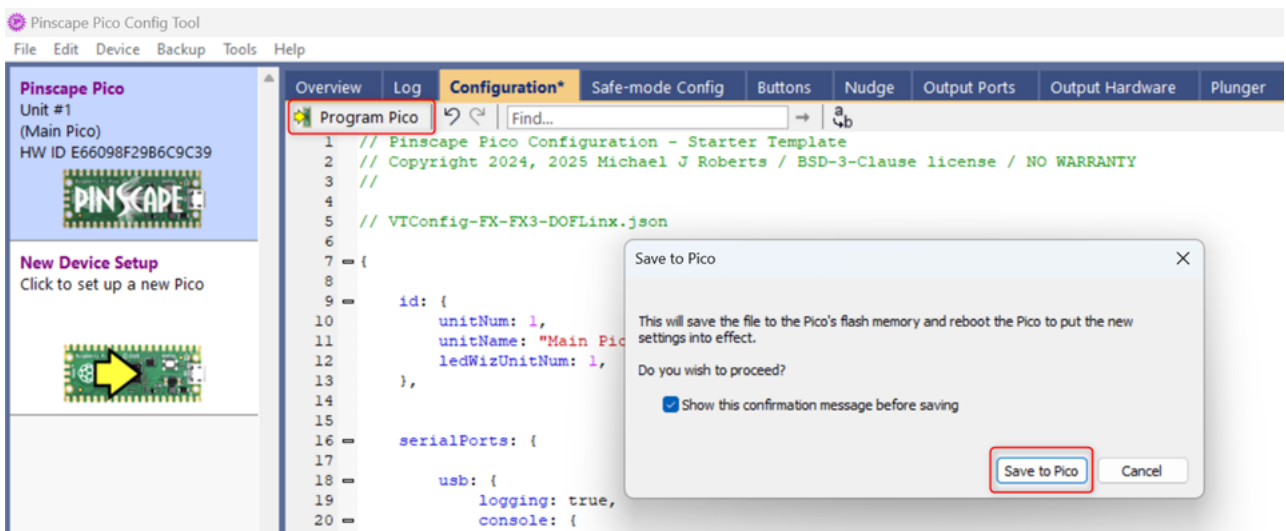
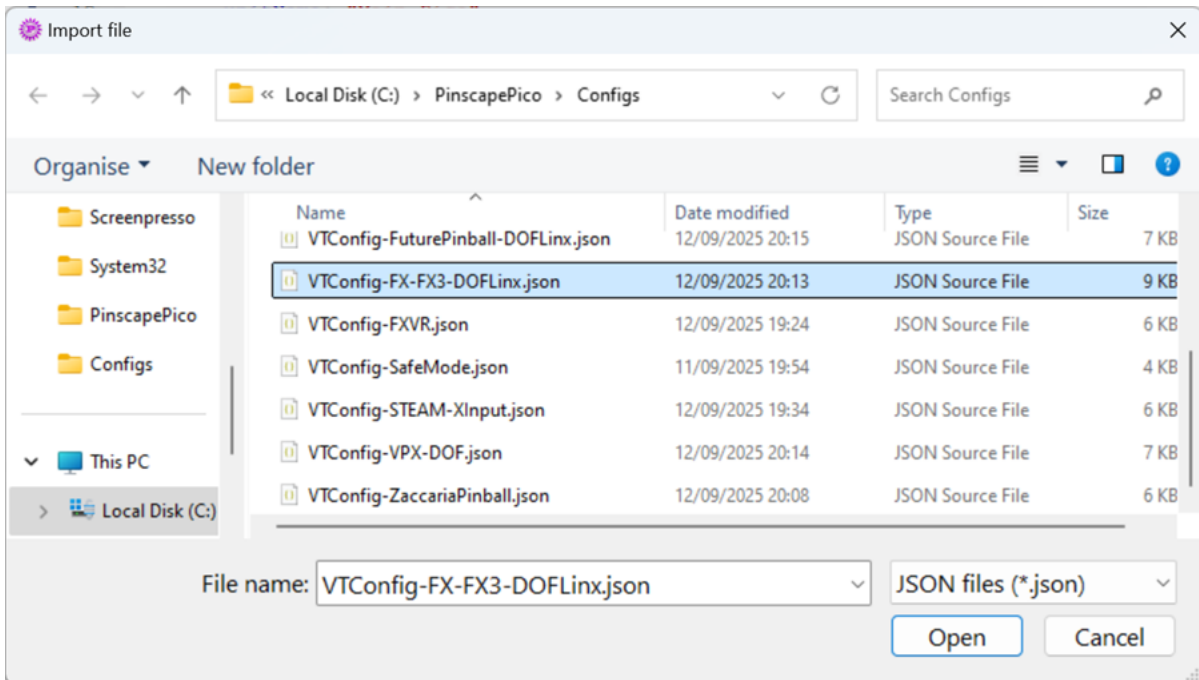
https://doflinx.github.io/docs/getting-started/08_PinballM.html

DOFLinx Setup

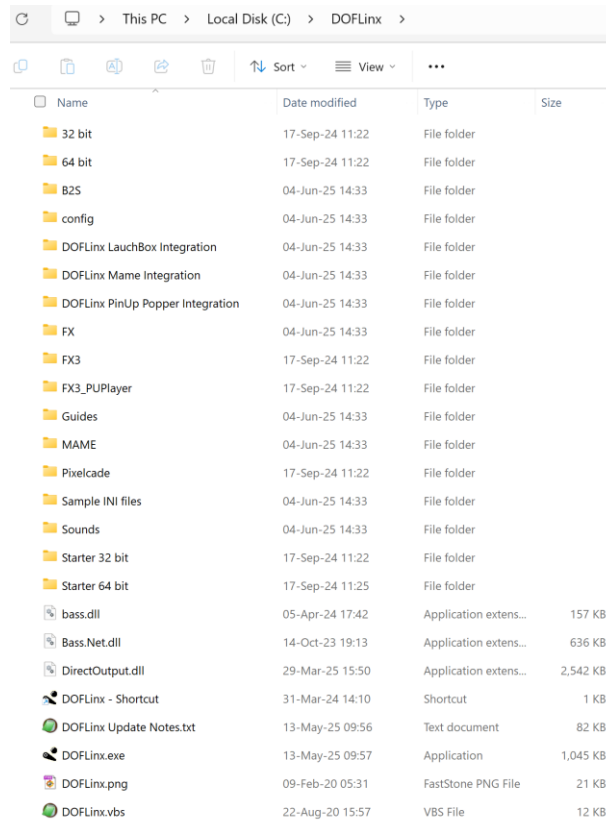
PREREQUISITES:

- **B2S Server** already installed <https://github.com/vpinball/b2s-backglass/releases>
- **DirectOutput** configured (have a look at **VirtuaTilt-RP2040_SetupGuide_v1.x.pdf** guide)
- **VTConfig-FX-FX3-DOFLinx.json** profile loaded in **Pinscape Pico Config Tool**

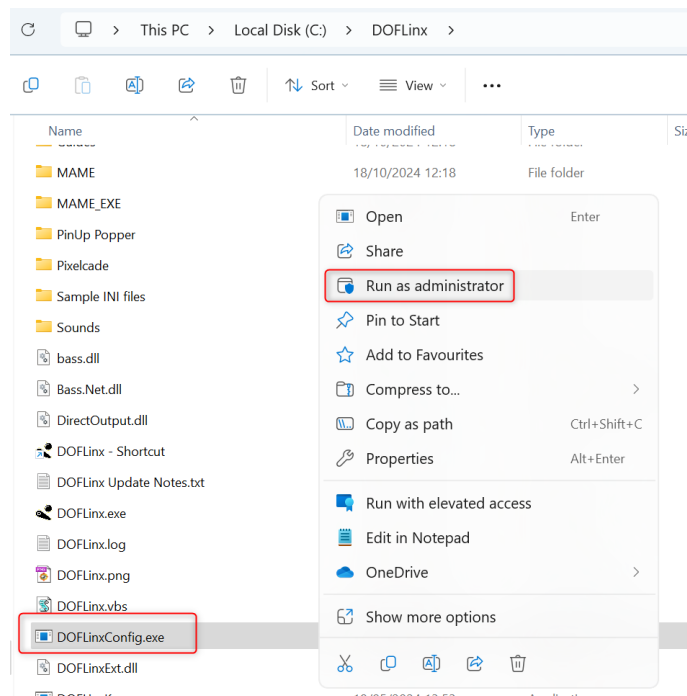


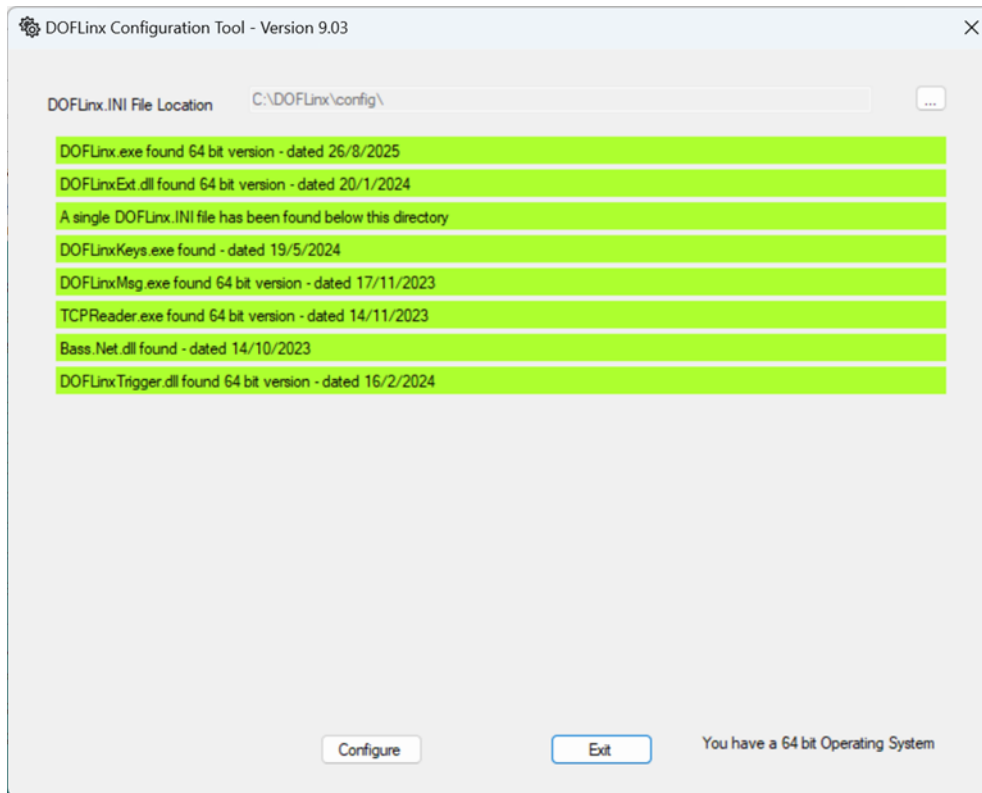


Create a folder **C:\DOFLinx** and uncompress the above zip package (remember to unblock it):

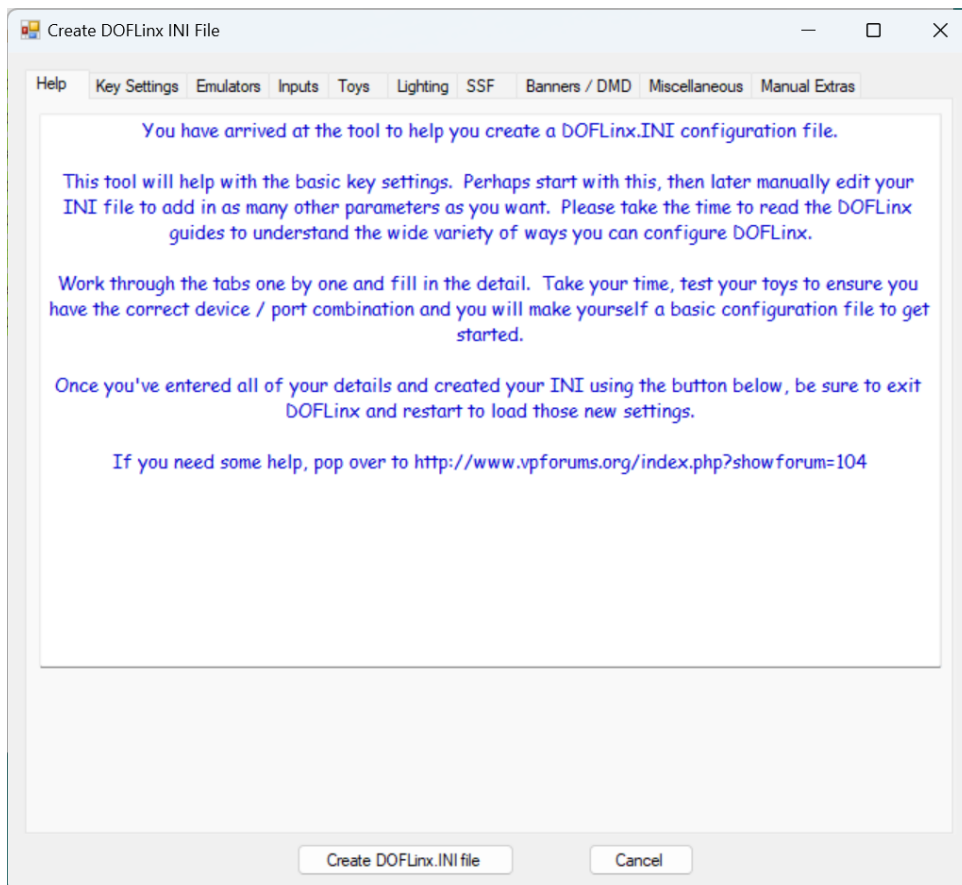


Run **DOFLinxConfig.exe** file in **DOFLinx** folder as administrator:

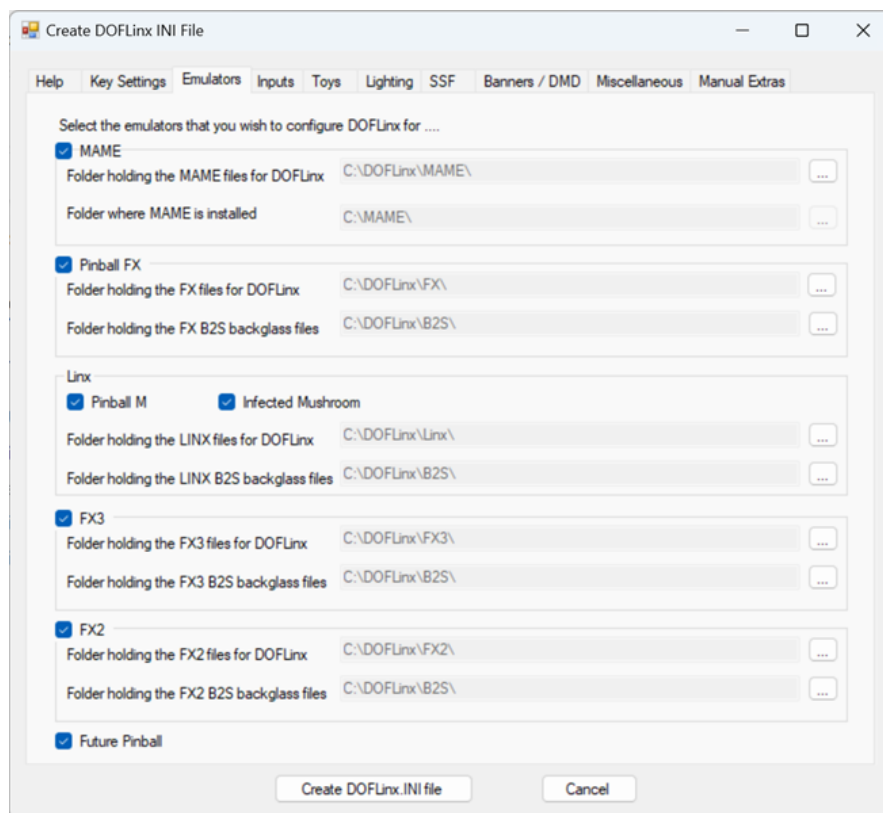
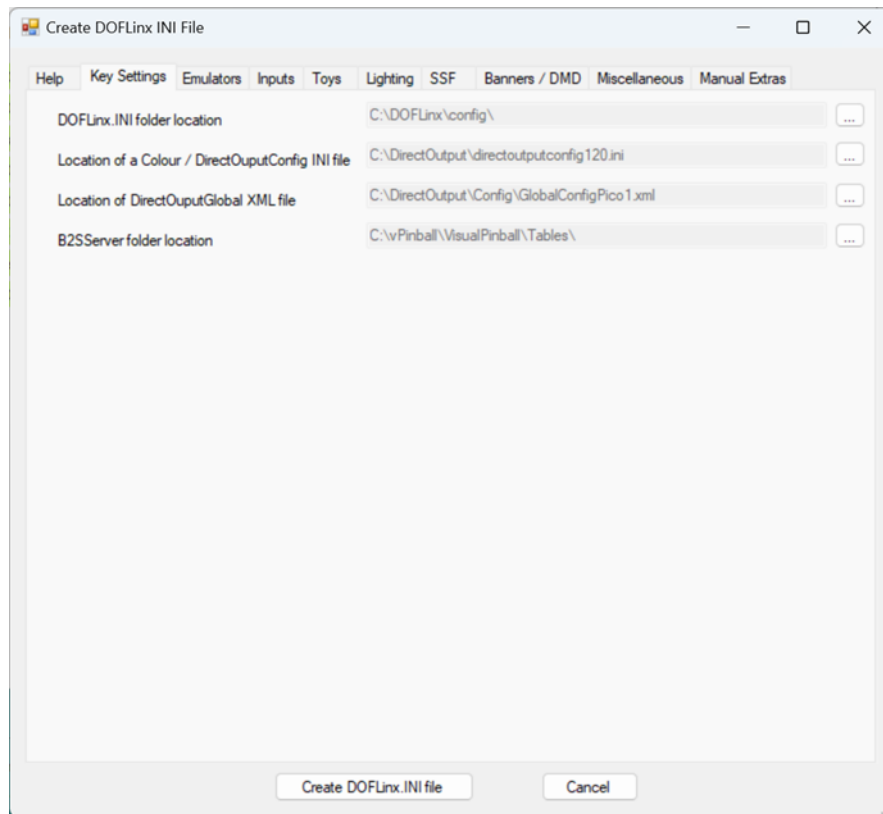




Turn on your VirtuaTilt power switch and click on **Configure button and work through all settings:**



You need to configure **Key Settings**, **Emulators**, **Inputs** and **Toys** tabs:



Create DOFLinx INI File

Help Key Settings Emulators Inputs Toys Lighting Pixelcade Miscellaneous

For each one of these input buttons you have, click in the box next to the name, then press the button once when requested.
This will collect the keyboard code required. If you don't have the button, just ignore it.
If your button has a LED, select the device / port. If it has no LED leave the device / port as 0 / 0.
If you have RGB buttons, select the default colour you would like it to be as well.

| | Device | Port | Colour | Test | | |
|------------|--------|-------|--------|------|------|------|
| L Flipper | A0 | Clear | 0 | 0 | MONO | Test |
| R Flipper | A1 | Clear | 0 | 0 | MONO | Test |
| L Magna | A2 | Clear | 0 | 0 | MONO | Test |
| R Magna | A3 | Clear | 0 | 0 | MONO | Test |
| Start | 31 | Clear | 0 | 0 | MONO | Test |
| Extra Ball | 32 | Clear | 0 | 0 | MONO | Test |
| Exit | 1B | Clear | 0 | 0 | MONO | Test |
| Coin | 35 | Clear | 0 | 0 | MONO | Test |
| Launch | 0D | Clear | 0 | 0 | MONO | Test |
| Fire | | Clear | 0 | 0 | MONO | Test |
| Pause | | Clear | 0 | 0 | MONO | Test |
| Reset | | Clear | 0 | 0 | MONO | Test |

Player 1 ☐ Clear 0 0 MONO Test

Player 2 ☐ Clear 0 0 MONO Test

Cheat ☐ Clear 0 0 MONO Test

Menu ☐ Clear 0 0 MONO Test

Button 1 ☐ Clear 0 0 MONO Test

Button 2 ☐ Clear 0 0 MONO Test

Button 3 ☐ Clear 0 0 MONO Test

Button 4 ☐ Clear 0 0 MONO Test

Button 5 ☐ Clear 0 0 MONO Test

Button 6 ☐ Clear 0 0 MONO Test

Button 7 ☐ Clear 0 0 MONO Test

Button 8 ☐ Clear 0 0 MONO Test

Create DOFLinx.INI file Cancel

Create DOFLinx INI File

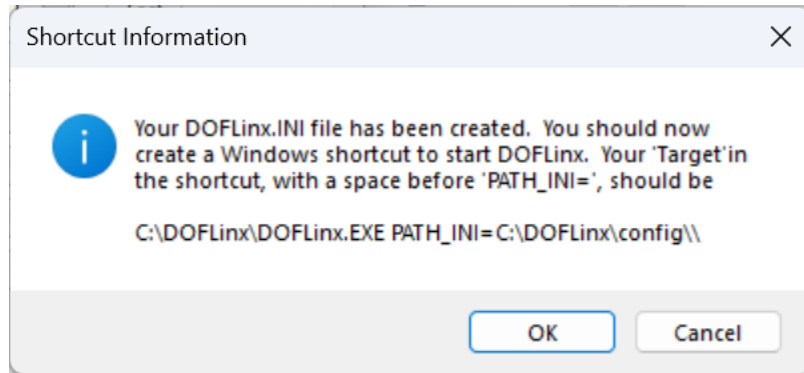
Help Key Settings Emulators Inputs Toys Lighting Pixelcade Miscellaneous

Check the boxes for the toys (solenoids, etc) you have and select the correct device / port.
Once you have entered the details test that you have things correct by using the test button.

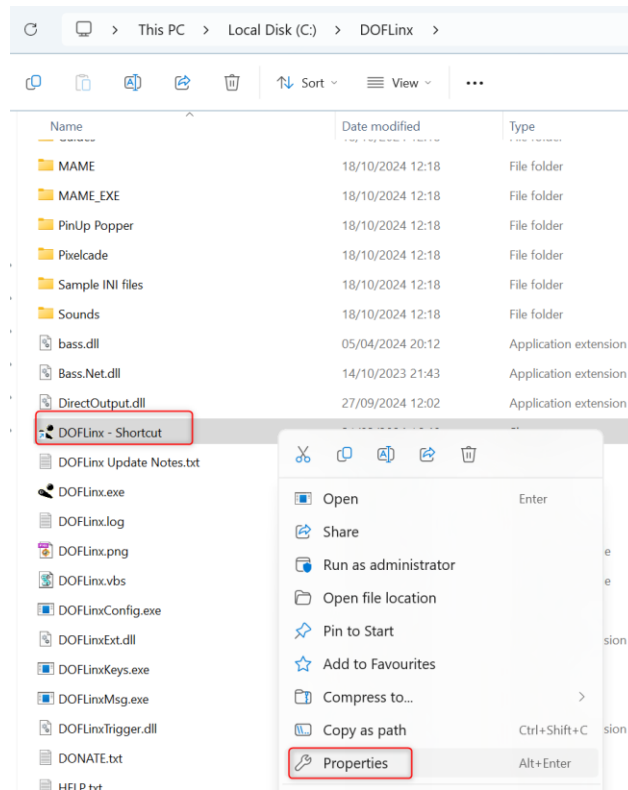
| | Device | Port | Test |
|----------------------------------------------------------------------|--------|------|------|
| <input checked="" type="checkbox"/> Left Flipper | 1 | 3 | Test |
| <input checked="" type="checkbox"/> Right Flipper | 1 | 4 | Test |
| <input checked="" type="checkbox"/> Left Slingshot | 1 | 1 | Test |
| <input checked="" type="checkbox"/> Right Slingshot | 1 | 1 | Test |
| <input checked="" type="checkbox"/> Mid Left | 1 | 1 | Test |
| <input checked="" type="checkbox"/> Mid Centre | 1 | 1 | Test |
| <input checked="" type="checkbox"/> Mid Right | 1 | 1 | Test |
| <input checked="" type="checkbox"/> Back Left | 1 | 1 | Test |
| <input checked="" type="checkbox"/> Back Centre | 1 | 1 | Test |
| <input checked="" type="checkbox"/> Back Right | 1 | 1 | Test |
| <input type="checkbox"/> Strobe | 0 | 0 | Test |
| <input type="checkbox"/> Beacon | 0 | 0 | Test |
| <input type="checkbox"/> Shaker | 0 | 0 | Test |
| <input checked="" type="checkbox"/> Gear Motor | 1 | 2 | Test |
| <input checked="" type="checkbox"/> Knocker | 1 | 1 | Test |
| <input type="checkbox"/> Fan | 0 | 0 | Test |
| <input type="checkbox"/> Bell | 0 | 0 | Test |
| <input type="checkbox"/> Chime #1 | 0 | 0 | Test |
| <input type="checkbox"/> Chime #2 | 0 | 0 | Test |
| <input type="checkbox"/> Chime #3 | 0 | 0 | Test |
| <input type="checkbox"/> DOFLinx to flash (pulse power) this device? | | | Test |
| <input type="checkbox"/> DOFLinx to flash (pulse power) this device? | | | Test |

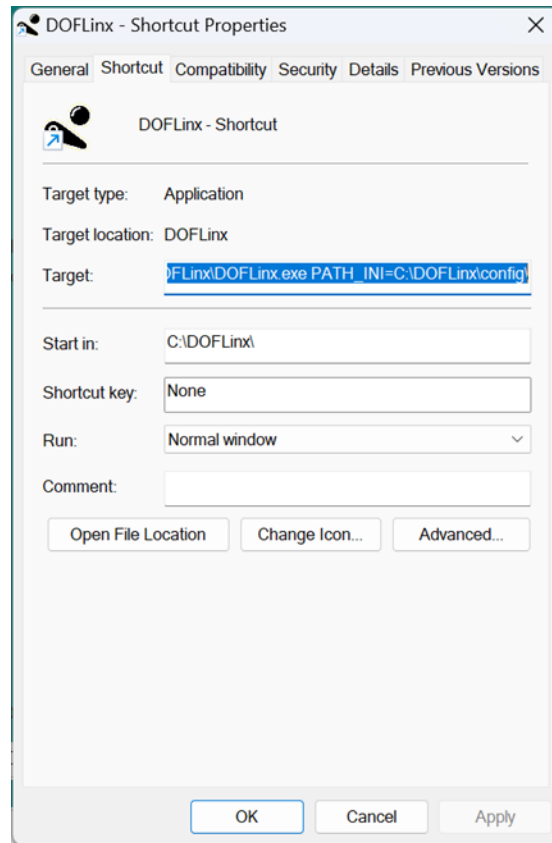
Create DOFLinx.INI file Cancel

Click on “**Create DOFLinx .INI File**” when you’re done:

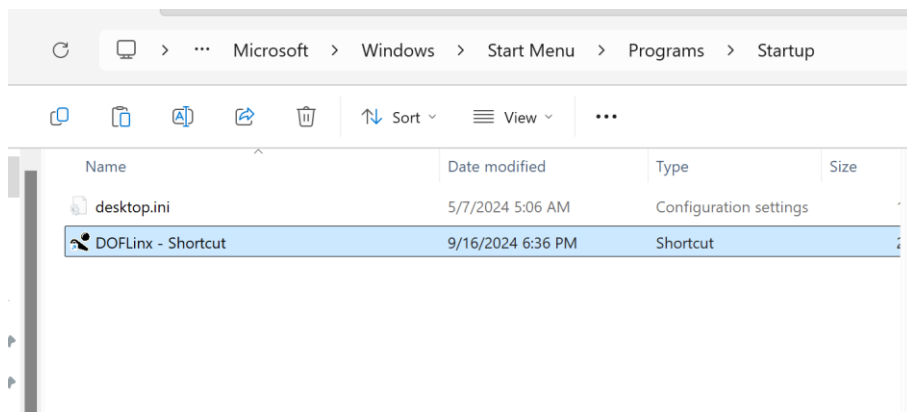
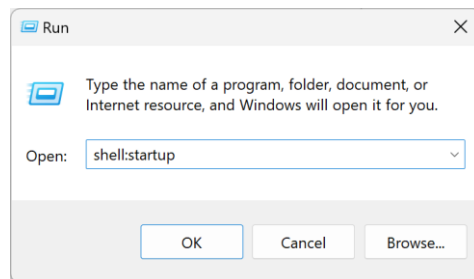


Edit properties of **DOFLinx – Shortcut.lnk** file and add the above string in Target field:

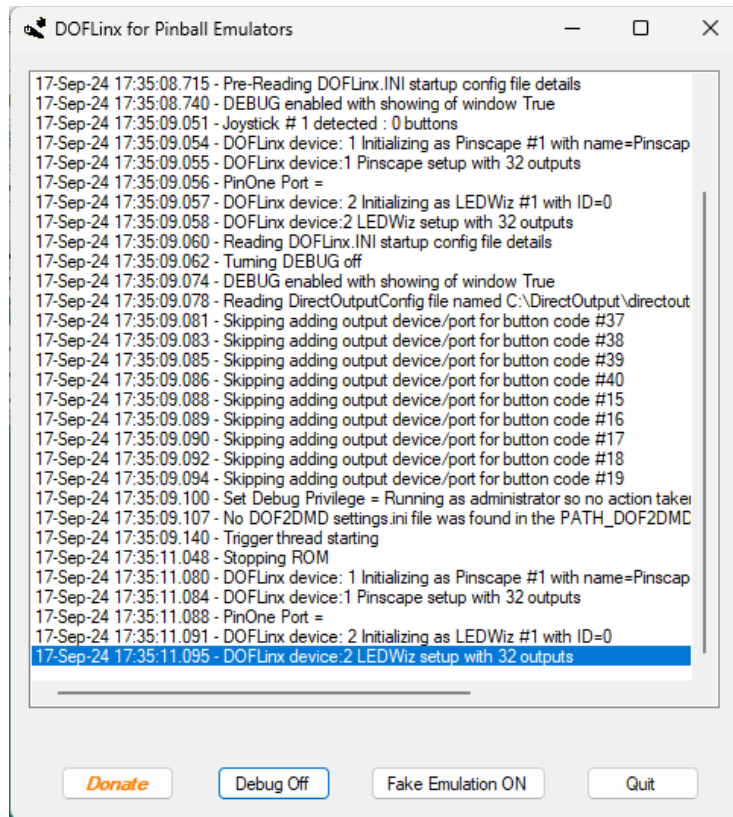




For automatic startup at every boot, put the shortcut in Startup folder:



Reboot the machine. If your DOFLinx.ini is configured correctly you should not have any error in debug logs (launch DOFLinx - Shortcut to check):



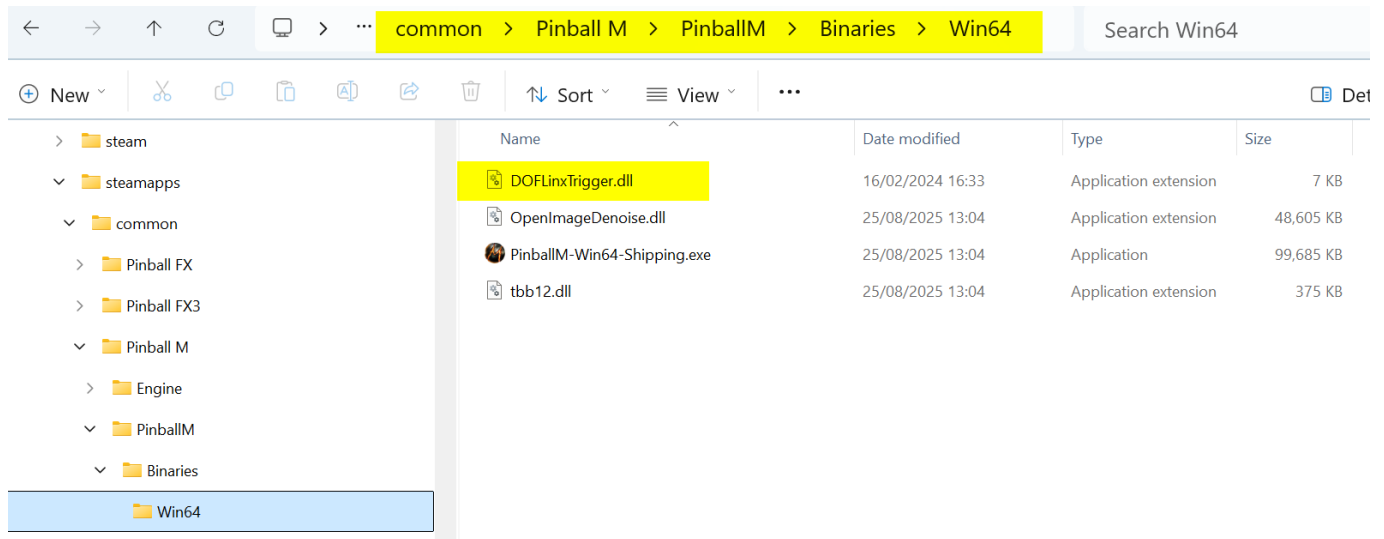
Accelerometer/Analog Plunger configuration

Pinball M emulator do not support analog plunger natively. However, new VirtuaTilt has native support for accelerometer and plunger (**X360CE** emulator is not needed anymore)!

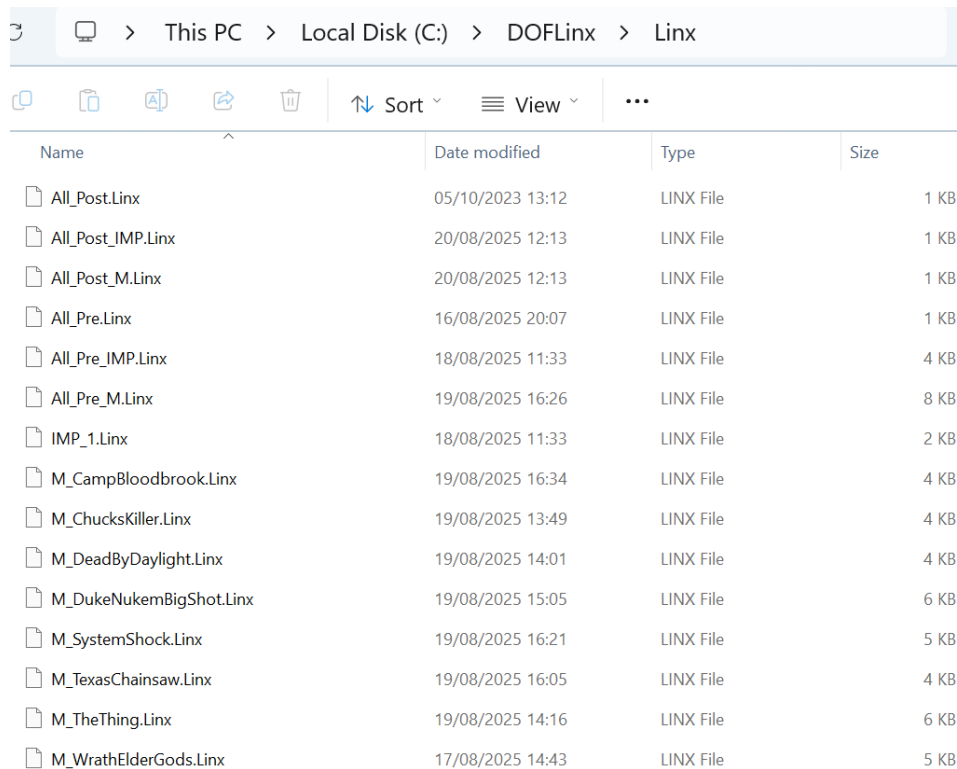
Enabling Pinball M for DOFLinx

Copy **DOFLinxTrigger.dll** from where you unzipped the DOFLinx download to the same folder

as PinBallM-Win64-Shipping.exe (**C:\Program Files (x86)\Steam\steamapps\common\Pinball M\PinballM\Binaries\Win64**)



Make sure that you've got the LINX files from the \LINX folder in the DOFLinx download zip in a folder where you want them, ie **C:\DOFLinx\Linx**



Edit your **DOFLinx.INI** to make Pinball M activate DOFLinx by adding in the **PROCESSES=** line **PinballM-Win64-Shipping**, so if you want for example MAME and PinballM to activate DOFLinx you would have:

PROCESSES=Mame,PinballM-Win64-Shipping

Note: PinballM-Win64-Shipping is the process to monitor for, but you still run **PinballM.exe** to start PinballFX.

Be sure to have the **PATH_LINX=** and **PATH_LINX_B2S=** parameters pointing to the place you put the Pinball M files.

Make sure you have a **** on the end of the path, so **C:\DOFLinx\Linx**

PATH_PIXELCADE=C:\Pixelcade

PATH_HI2TXT=C:\HI2TXT

PATH_LINX=C:\DOFLinx\Linx

PATH_LINX_B2S=C:\DOFLinx\B2S

MAME_PROCESS=Mame

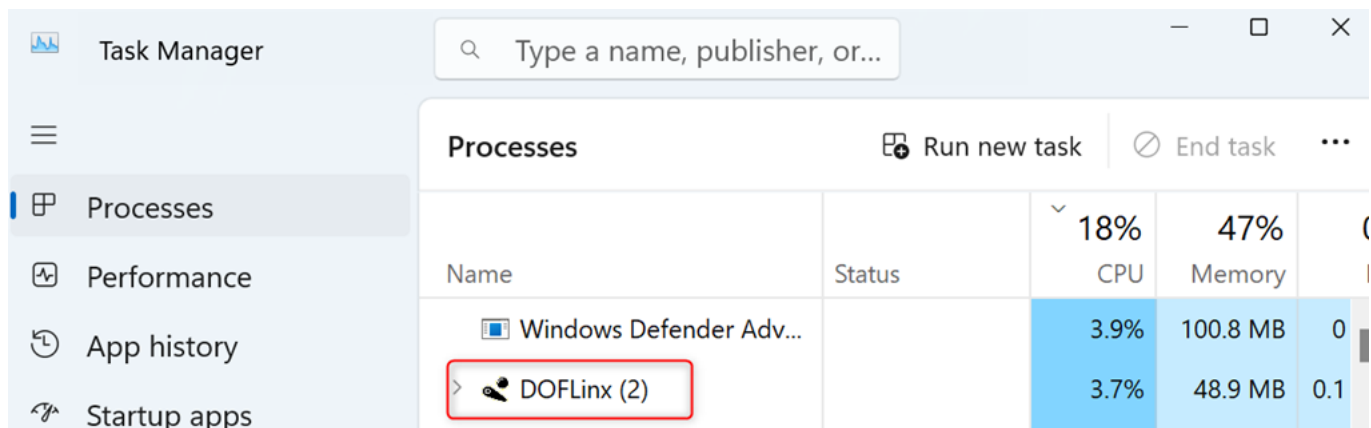
PROCESSES=PinballFX-Win64-Shipping,Pinball FX3,Pinball FX2,Future Pinball

PROCESSES_LINX=PinballM-Win64-Shipping,IMPinball-Win64-Shipping

You can get the complete set of active backglassses for Pinball M from

<https://github.com/DOFLinx/B2S-Back-Glasses/releases> and place them in the folder you just set up above.

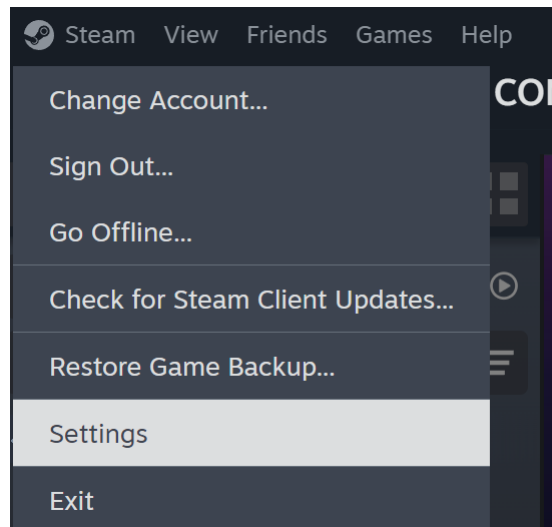
Reboot the machine and check that **DOFLinx process** is running:



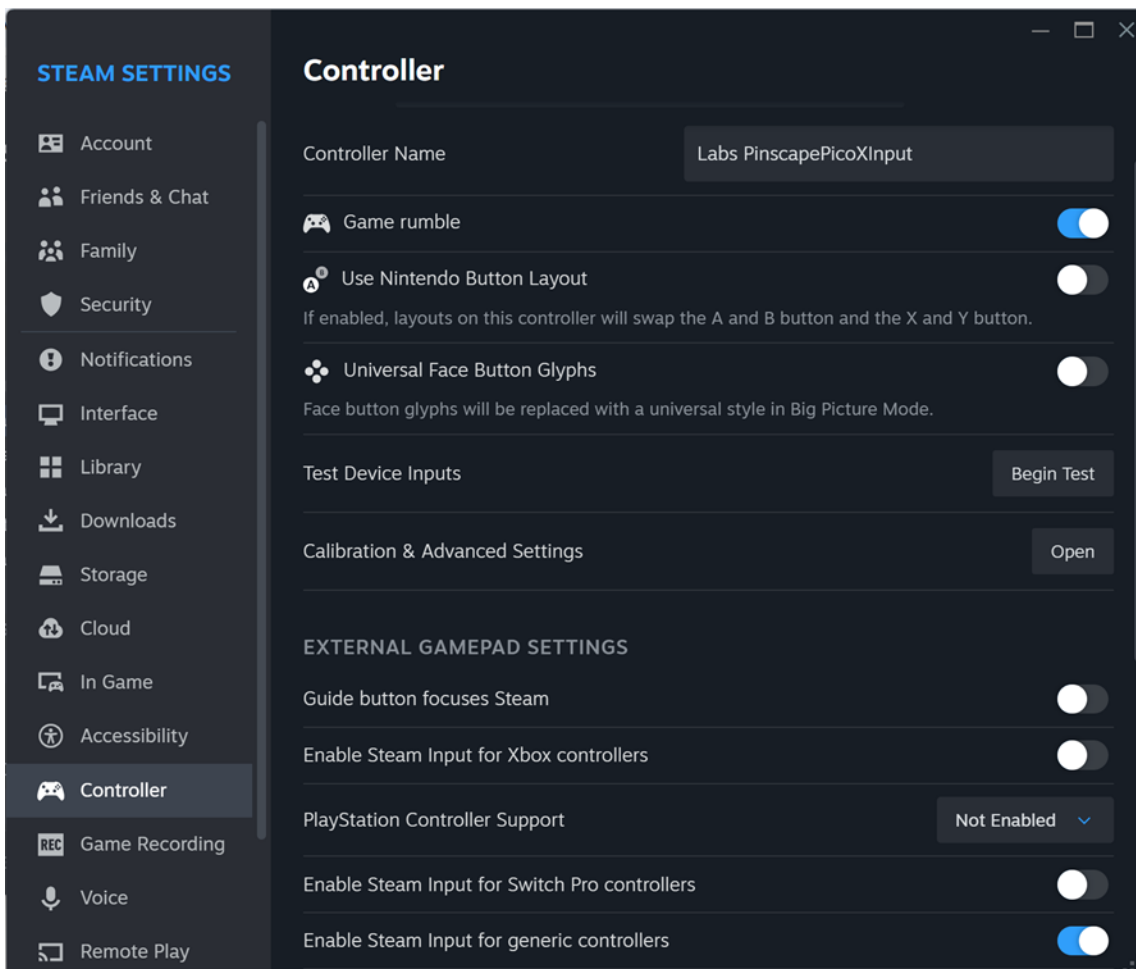
The screenshot shows the Windows Task Manager window with the 'Processes' tab selected. The 'DOFLinx (2)' process is highlighted with a red box. The 'Windows Defender Adv...' process is also visible. The table below shows the CPU and Memory usage for these processes.

| Name | Status | CPU | Memory |
|-------------------------|--------|------|----------|
| Windows Defender Adv... | | 3.9% | 100.8 MB |
| DOFLinx (2) | | 3.7% | 48.9 MB |

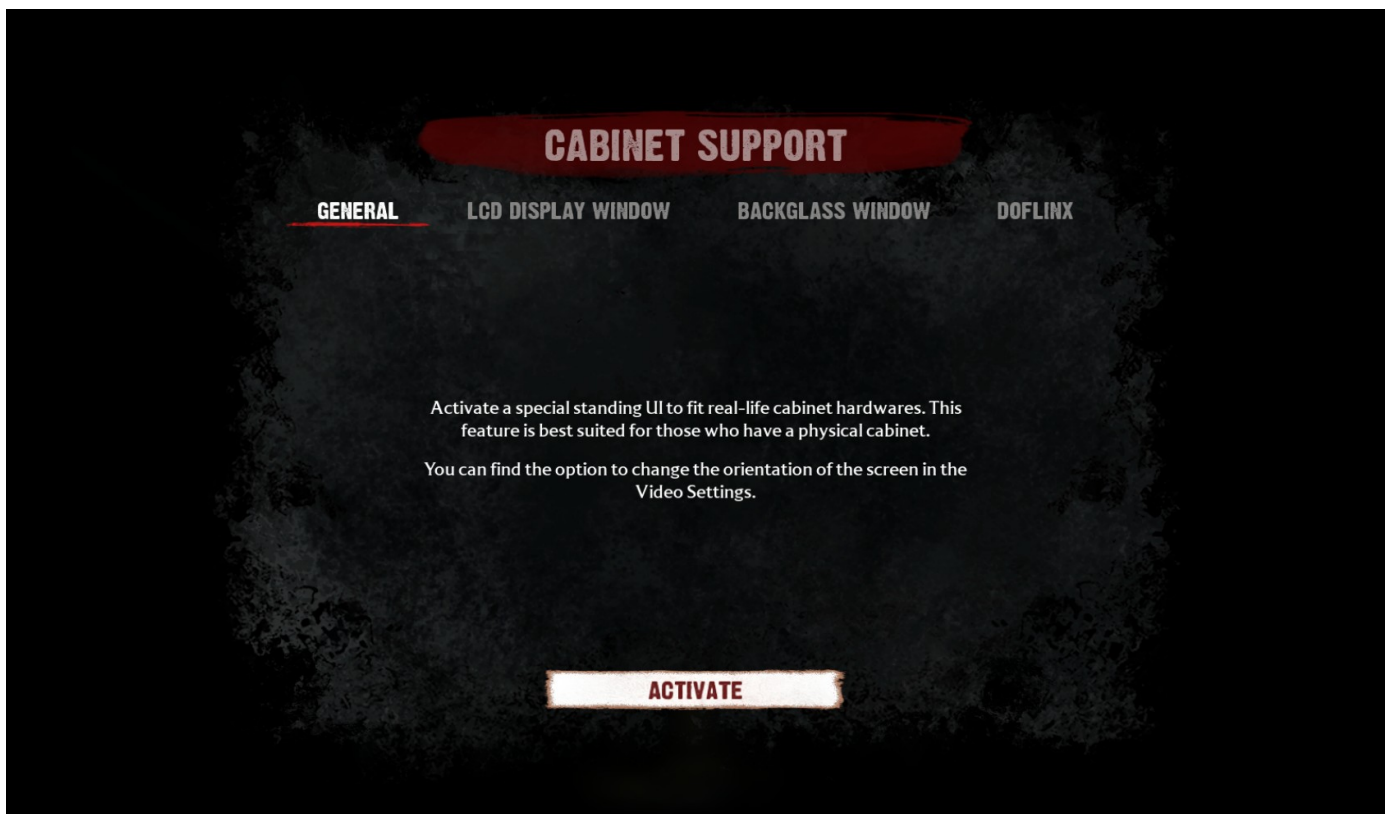
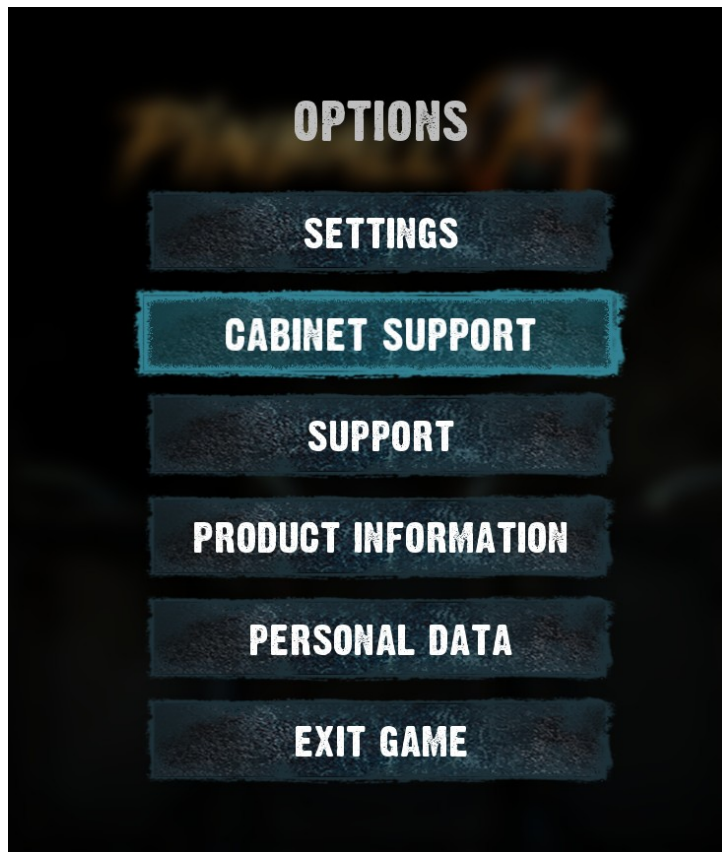
Go to Steam **Settings** → **Controller**



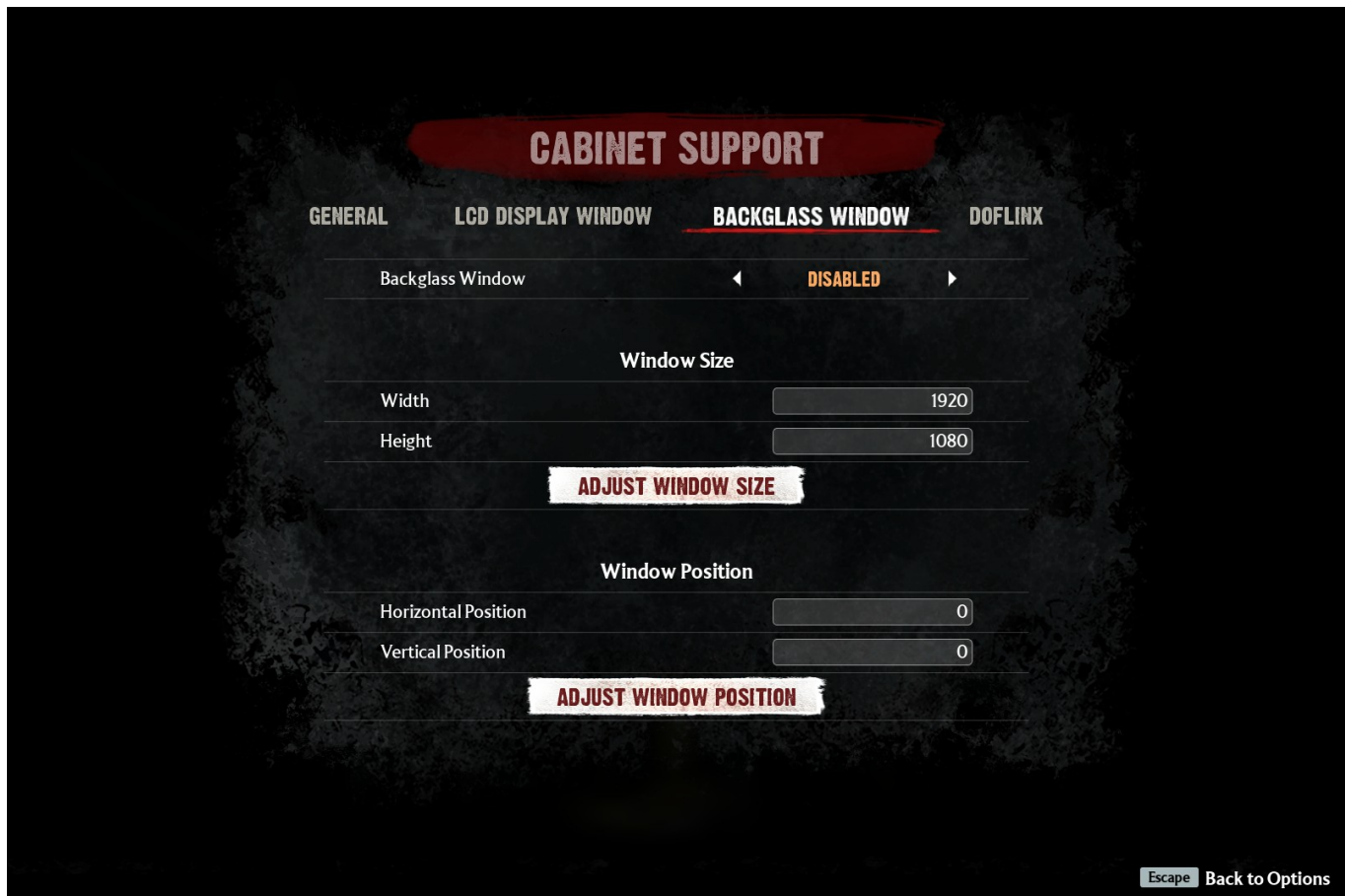
Disable everything under "External Gamepad Settings" with the except of "**Enable Steam Input for generic controllers**".



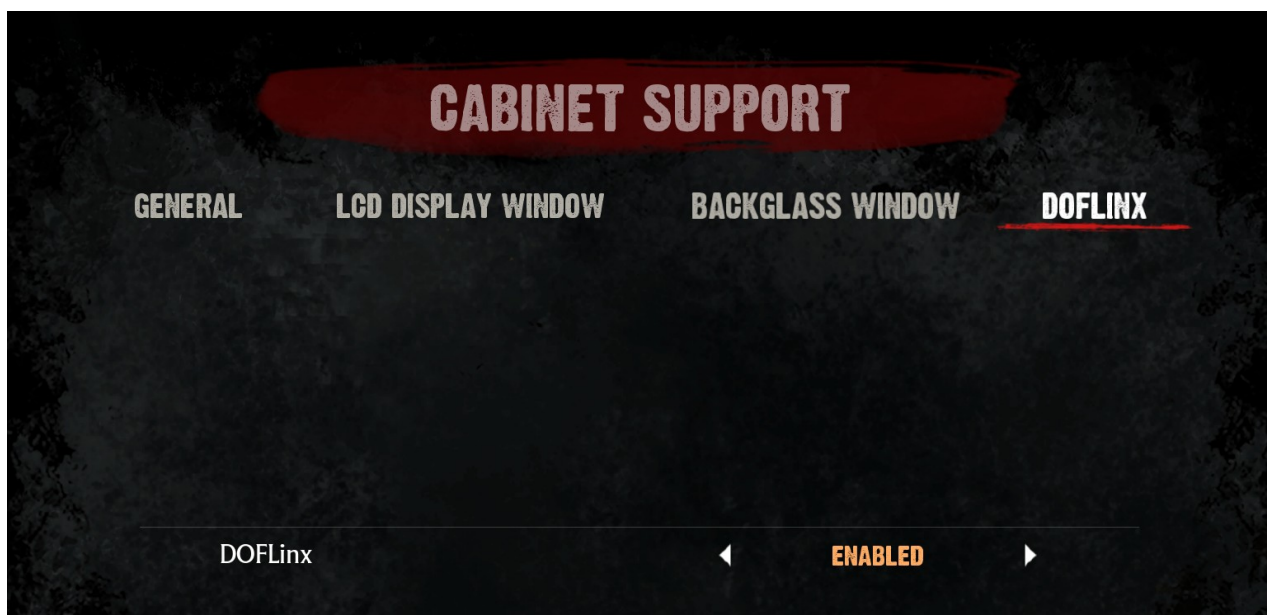
Start Pinball M, go to **Options | Cabinet Support | General** and **activate cabinet mode**:



Disable the Backglass Window as you will use the DOFLinx active backglasses:



Go to the **DOFLinx** tab, **enable it**:



Start Pinball M and have fun with full DOFLinx feedback!

If everything was setup correctly you should see DOFLinx logo while loading:



Troubleshooting Tips

If DOFLinx logo is present but DOFLinx feedback is not working, quit the game then kill DOFLinx process in Task Manager and run it again manually from C:\DOFLinx folder. Then restart the game.

DOFLinx.INI file for VirtuaTilt

You can have a look at the following **DOFLinx.ini** file as a reference for your VirtuaTilt. Be sure to correctly configure all paths:

```
#####
#####

#

# The config file for DOFLinx Starter MAME, Pinball FX, Pinball M and Infected Mushroom Pinball
# To find out more about each parameter have a read of the included main guide 'DOFLinx Guide'
#

#####
#####

# 0 = OFF (normal operation), 1 = ON - When ON a window will appear and a log file will be created in the EXE
directory.

DEBUG=0

#location of some general files

COLOUR_FILE=C:\DirectOutput\directoutputconfig120.ini

DIRECTOUTPUTGLOBAL=C:\DirectOutput\Config\GlobalconfigPico1.xml

PATH_B2S_SERVER=C:\vPinball\VisualPinball\Tables\

#location of emulators files

PATH_FX2=C:\DOFLinx\FX2\

PATH_FX2_B2S=C:\DOFLinx\B2S\

PATH_FX3=C:\DOFLinx\FX3\

PATH_FX3_B2S=C:\DOFLinx\B2S\

PATH_MAME=C:\DOFLinx\MAME\

FP_ATTEMPT_LINK=1

MAME_FOLDER=C:\MAME\

PATH_PIXELCADE=C:\Pixelcade\

PATH_HI2TXT=C:\HI2TXT\
```

PATH_LINX=C:\DOFLinx\Linx

PATH_LINX_B2S=C:\DOFLinx\B2S

MAME_PROCESS=Mame

PROCESSES=PinballFX-Win64-Shipping,Pinball FX3,Pinball FX2,Future Pinball

PROCESSES_LINX=PinballM-Win64-Shipping,Pinball-Win64-Shipping

#If you want the MAME score screen to appear then set the below to 1

SCORE_SCREEN=0

L_FLIPPER_KEY=A0

R_FLIPPER_KEY=A1

LINK_BUT_LF=0000,MONO,A0

LINK_BUT_RF=0000,MONO,A1

LINK_BUT_ML=0000,MONO,A2

LINK_BUT_MR=0000,MONO,A3

LINK_BUT_ST=0000,MONO,31

LINK_BUT_EB=0000,MONO,32

LINK_BUT_EX=0000,MONO,1B

LINK_BUT_CN=0000,MONO,35

LINK_BUT_LB=0000,MONO,0D

L_FLIPPER_OUTPUT=1003

R_FLIPPER_OUTPUT=1004

LINK_LF=1003,100,10000,255

LINK_RF=1004,100,10000,255

LINK_LS=1001,100,500,255

LINK_RS=1001,100,500,255

LINK_ML=1001,100,500,255

LINK_MC=1001,100,500,255

LINK_MR=1001,100,500,255

LINK_BL=1001,100,500,255

LINK_BC=1001,100,500,255

LINK_BR=1001,100,500,255

LINK_GR=1002,1000,10000,255

LINK_KN=1001,100,500,255

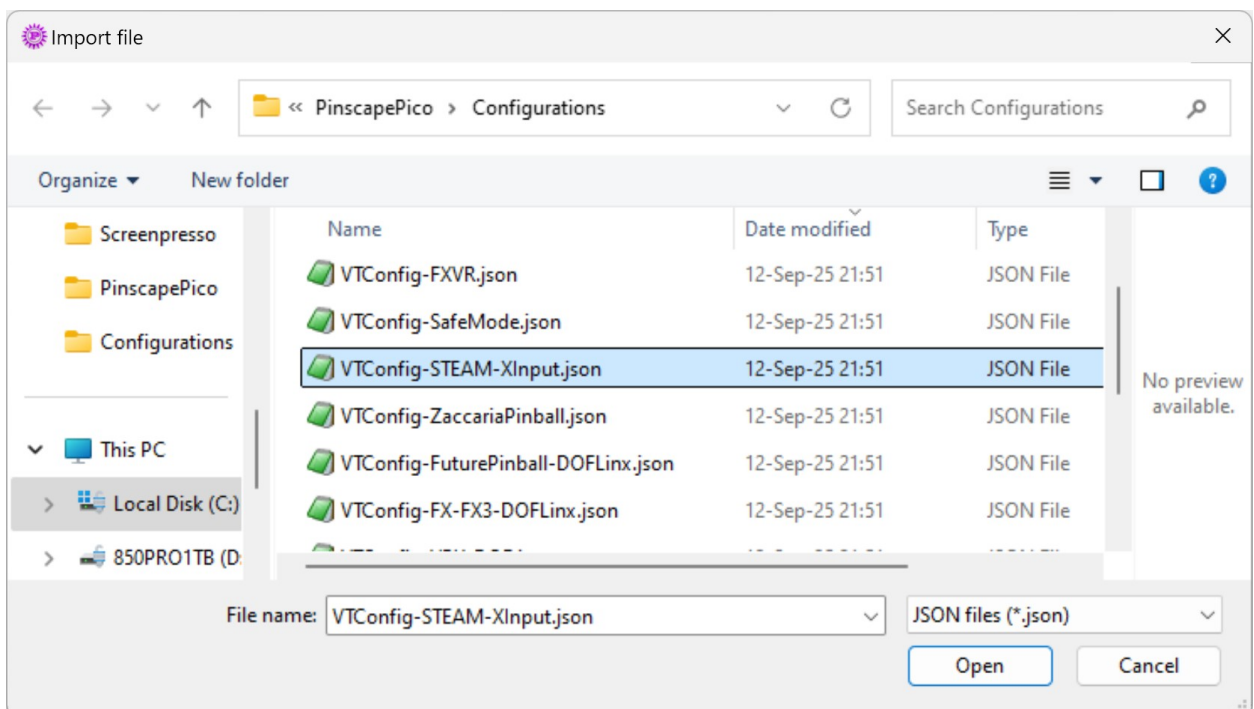
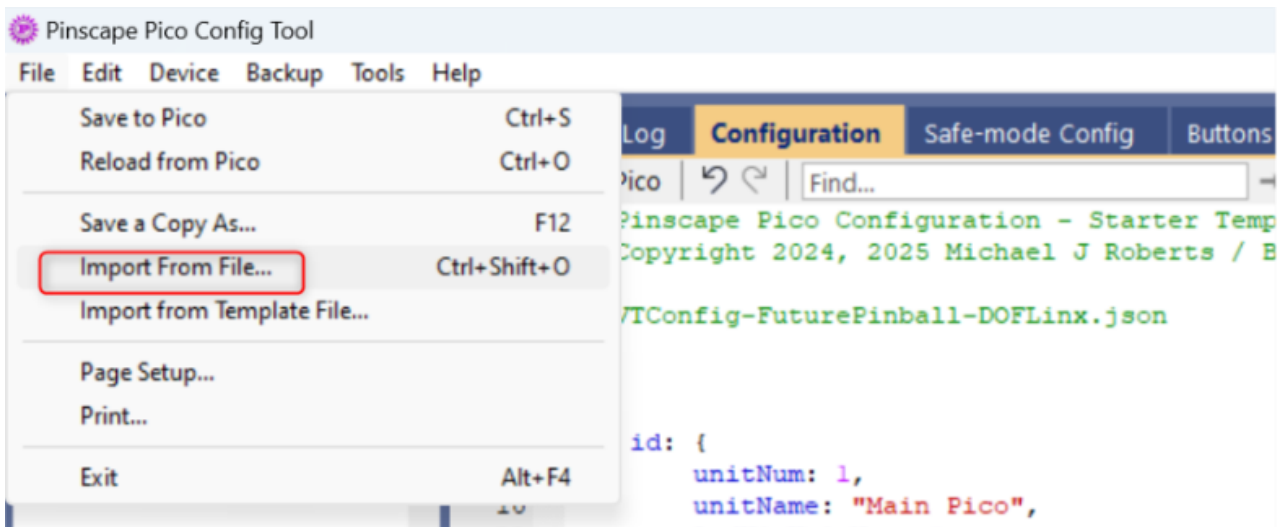
#!!!!!!!!!!!!!!!!!!!!!!

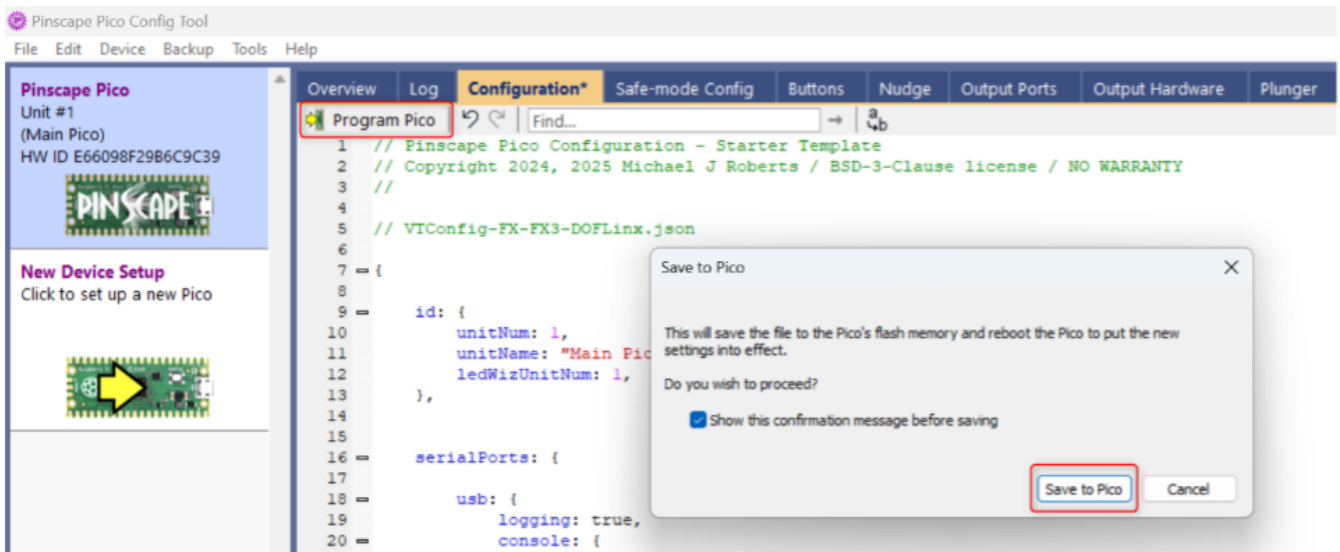
Use VirtuaTilt without DOF/DOFLinx

One of the main features of the new VirtuaTilt is the possibility to use it without going into DOF/DOFLinx configurations and benefit of feedback from solenoids and shaker motor, as well as analog plunger and accelerometer nudging. Just Plug&Play !

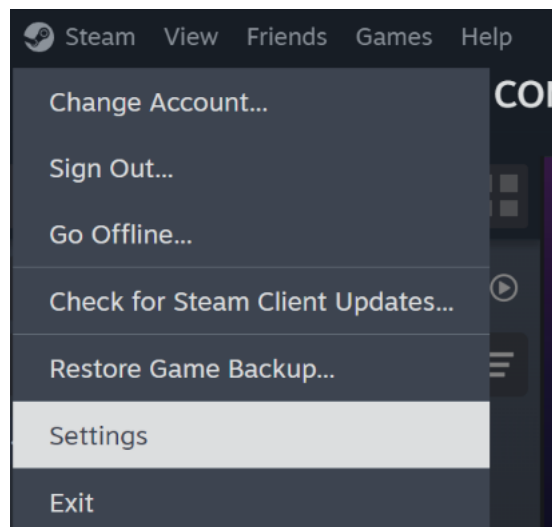
The **XInput mode** is used in Pinscape Pico firmware to achieve that.

What you need to do is load **VTConfig-STEAM-XInput.json** profile in **Pinscape Pico Config Tool** :

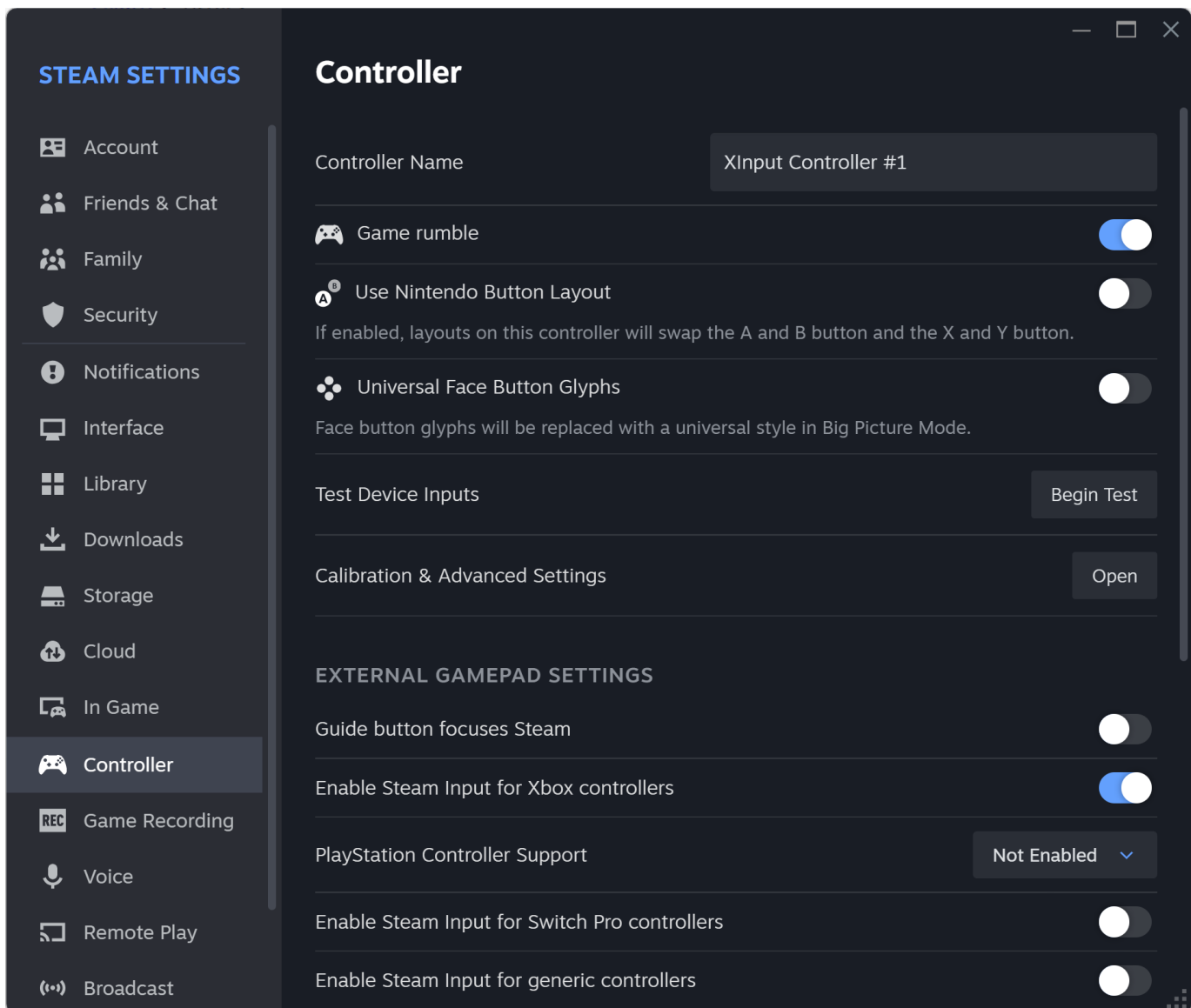




Start **Steam** and go to **Settings** → **Controller**



Disable everything under "External Gamepad Settings" with the except of "**Enable Steam Input for Xbox controllers**" and "**Game rumble**":



That's it! Launch your favorite Virtual Pinball game and have fun.

IMPORTANT NOTE: Xbox drivers for Windows installation is required (see [Xbox Drivers Installation](#) chapter in Main Setup Guide).