Software Versions

Midi Access Version

Press, Change the Effects by tap the pattern and switch into the midi mode

-Single Tap – Change Effect 1 / 2

-Double Tap – Change 3

-Long Hold Tap – Momentary Actual Effect

Shutter Gate Version

Press changes Effect 1, than change Effect 2

Double Tap – Change Effect 1 / 2

Long Hold Tap – Momentary/Shutter

Shutter Speed – Momentary/Shutter

How to Flash and Test
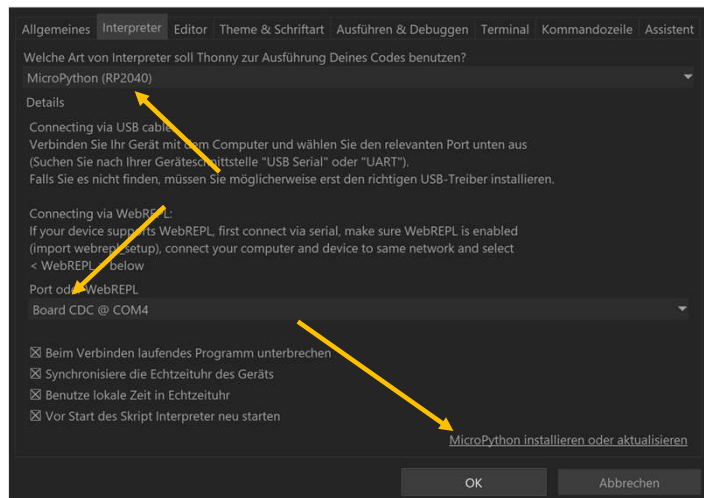 -Raspberry Pi 2040 Zero

1.) Install Thonny → https://thonny.org/

2.) Download Code → Whammy4_Shutter_Gate.py

3.) Rename to → **main.py**

4.) Start Thonny, open Python File
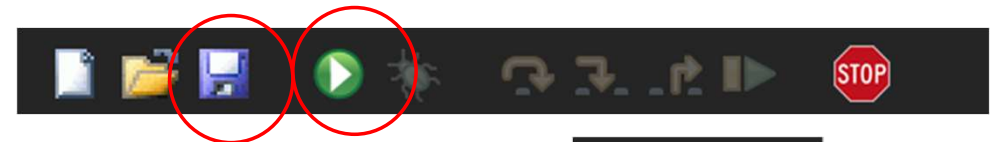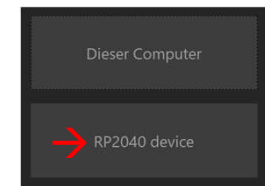
5.) Tools → Options → Interpreter

6.) →

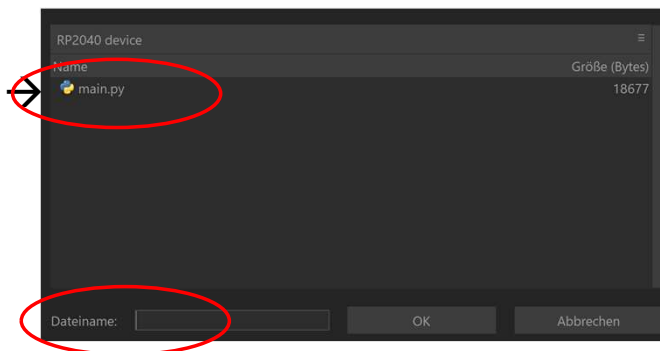7.) Connect RP 2040 with PC

8.) Restart Thonny

9.) Test your Functions here

10.) Save as

11.) Flash →

TEST RP ONLY

Midi Access Version

Computer
USB-C

4 220 Ω **MIDI 4** → 5V

MIDI 5 220 Ω 5

GND

3V3

29

28

RP2040-Zero

BOOT   RESET

27

26

15

MIDI
Access

Momantary

14 13 12 11 10 9 8

Waveshare

0
1
2
3
4
5
6
7

Shutter Gate Version

Computer
USB-C

4 220 Ω **MIDI 4** → 5V

MIDI 5 220 Ω 5

GND

10K Poti

3V3

29

28

RP2040-Zero

BOOT   RESET

27

26

15

MIDI
Access

Momantary

14 13 12 11 10 9 8

Waveshare

0
1
2
3
4
5
6
7

1kΩ LED

1kΩ LED

GND
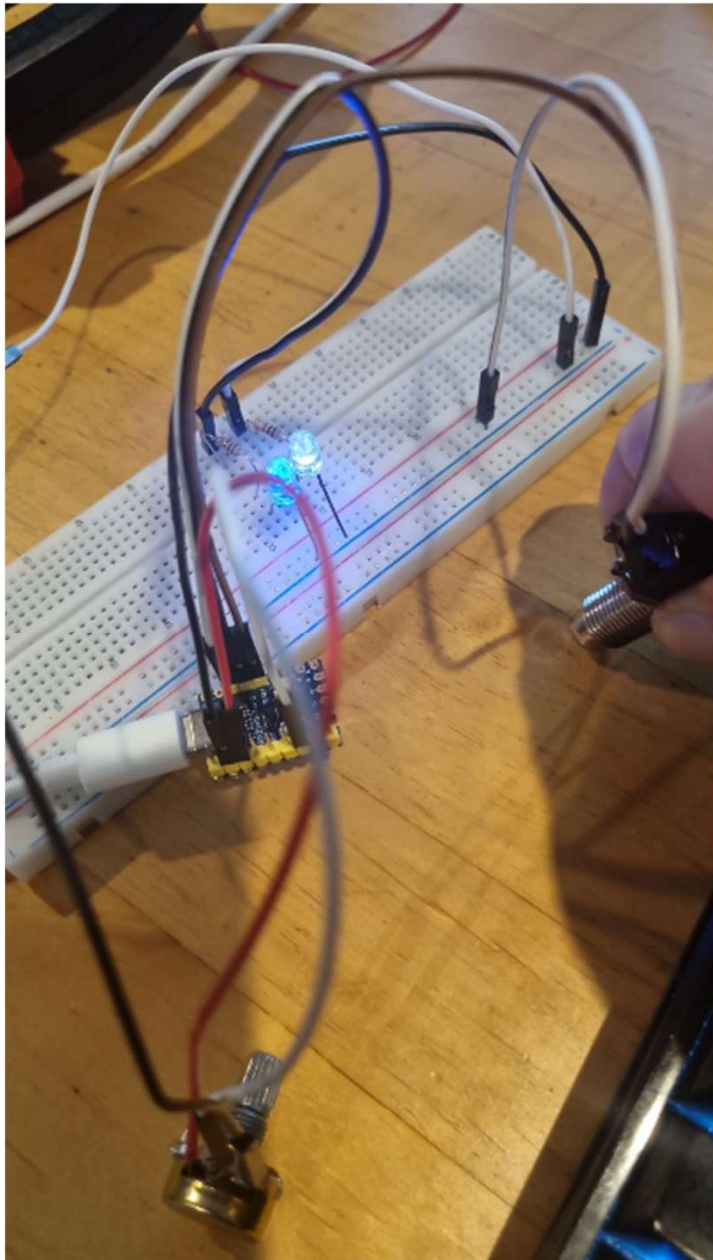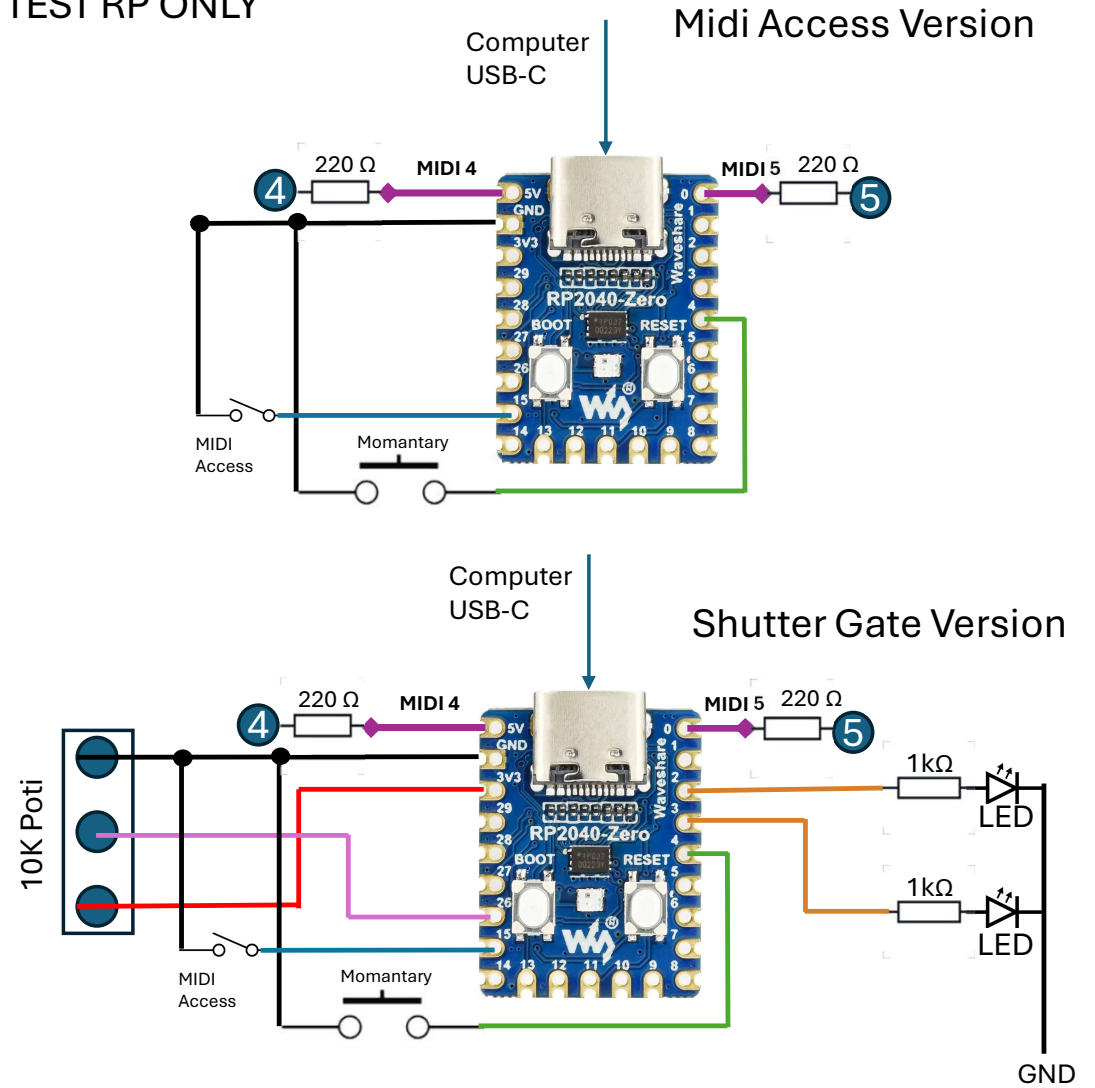
```python
from machine import Pin, ADC
import time

# =========================================================
# DEBUG
# =========================================================
DEBUG = False        # <-- For Tests, set True
DEBUG_A_EVENTS = False # <-- For Tests, set True
DEBUG_A_SCOPE = True # <-- For Tests, set True
SCOPE_EVERY_MS = 5
SCOPE_WIDTH = 80

# =========================================================
# DEVELOPMENT BYPASS
# =========================================================
DEV_BYPASS_MOMENTARY = False # <-- For Tests, set True

# =========================================================
# PC SOUND (Serial Frequency Output)
# =========================================================
FREQ_SEND_EVERY_MS = 50

# =========================================================
# BYPASS / GATE LOGIC
# =========================================================
BYPASS_B_INVERT = True
BBM_DELAY_US = 20

def dbg(msg):
```

Kommandozeile ×

```
A=0 B=0
··· ▮▮▮ ···· ▮▮▮ ····· ▮▮▮ ····· ▮▮▮ ····· ▮▮▮ ····· ▮▮▮ ···    half=30ms
A=0 B=0
··· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ·····    half=30ms
A=0 B=0
···· ▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮ ·····
[SCOPE STOP]


[SCOPE START]
▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ···    half=30ms
A=0 B=0
··· ▮▮▮ ···· ▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ·    half=30ms
A=0 B=0
···· ▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮ ···· ▮▮▮ ···· ▮▮    half=30ms
A=1 B=1
▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮▮ ···· ▮▮ ···
```