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# Example engaging class projects
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import sys, os, traceback
import spectra, pygame
from enoMidiController import *
from projBase import *
from projPgzBase import *

##### coursesPgZ Accordion + MIDI #####

class ProjMidi(ProjectsPgZBase):
    emc = None #enodia midi controller
    ##### constructor, error #####
    def __init__(self, **kwargs):
        self.__dict__.update(kwargs) #allow class fields to be passed in constructor
        super().__init__()

        self.initSliders()
        self.midiClearLights()
        self.midiLightInit()

    def err(self, msg): print("ProjMidi error:", msg); traceback.print_exc()
    def msg(self, msg): print("ProjMidi msg:", msg)
    def midiClearLights(self):
        for i in range(64): self.emc.midiOut.note_on(i, 0, 0)

    ##### midi callback #####
    def midiLightInit(self): #F
        colors = [3,4,5,13,21,29,37,45,53,61]
        for i in colors: self.emc.midiOut.note_on(i, i, 6)
        #for i in range(12): self.emc.midiOut.note_on(i, i, 6)

    ##### midi callback #####
    def midiCB(self, control, arg): #G
        print("hello class")
        try:
            if self.verbose: print("cpgzm midicb: ", str(control), str(arg))

            if control[0] == 's': #slider
                whichSlider = int(control[-1]) - 1 #control is "s1", "s2", etc.
                whichVal = int(arg)
                mappedVal = self.mapSliderVal(whichSlider, whichVal)
                print("slider", str(whichSlider), str(whichVal)) #H

                self.sliderValDict[whichSlider] = self.sliderFullrangeV - whichVal
                #self.sliderValDict[whichSlider] = mappedVal
                #self.assignColumnIdx(whichSlider, mappedVal)
            else:
                print(control, arg)
                if control=="a8" and arg == 127: print("dance") #I
                if control=="a7" and arg == 127: print("p1 dances")
                if control=="a6" and arg == 127: print("p0 dances")

        except: self.err("midiCb " + str([control, arg]))
    ##### excised #####
    def initSliders(self):
    def drawSliders(self):
    def drawSlider(self, whichSlider): ...
    def setAkaiColorIdxCoord(self, colorIdx, x, y, colorBright=6): ...
    def mapAkaiCoord(self, x, y): ...
    def mapSliderVal(self, whichCol, whichSliderVal): ...
    def updateMatrixColors(self): ...

    def draw(self, screen): self.drawSliders()
    def on_mouse_down(self, pos): pass #cpgz.on_mouse_down(pos)
    def update(self): self.emc.pollMidi()

### end ###

```

A

B

C  
D

E