Final code for the pinball machine  
  
from machine import Pin, PWM

import time

import neopixel

import random

#dc motor

in1 = Pin(4, Pin.OUT)

in2 = Pin(5, Pin.OUT)

ena = PWM(Pin(18), freq=1000)

def motor\_clockwise(speed=700):

in1.on()

in2.off()

ena.duty(speed)

#neopixel

pixels = neopixel.NeoPixel(Pin(19), 16)

#servo

servo1 = PWM(Pin(25), freq=50)

servo2 = PWM(Pin(26), freq=50)

def set\_servo\_angle(servo, angle):

duty = int((angle / 180) \* 102 + 26) # Map 0–180° to 26–128

servo.duty(duty)

#switch

switch = Pin(13, Pin.IN, Pin.PULL\_UP) # Active LOW

#start

motor\_clockwise(700)

time.sleep(0.5)

set\_servo\_angle(servo1, 30)

set\_servo\_angle(servo2, 30)

pixels.fill((0, 0, 0))

pixels.write()

flipped = False

#neopixel start

for i in range(16):

pixels[i] = (0, 0, 150) # Dimmer blue color

pixels.write()

time.sleep(0.1)

pixels[i] = (0, 0, 0) # Turn off after lighting up

pixels.fill((0, 0, 0))

pixels.write()

#loopin

while True:

#random disco deewane

for i in range(16):

r = random.randint(20, 100) #brightness

g = random.randint(20, 100)

b = random.randint(20, 100)

pixels[i] = (r, g, b)

pixels.write()

time.sleep(0.2)

pixels.fill((0, 0, 0))

pixels.write()

time.sleep(0.1)

#switch

if not switch.value(): # Button pressed

if not flipped:

set\_servo\_angle(servo1, 0)

set\_servo\_angle(servo2, 70)

flipped = True

else:

if flipped:

set\_servo\_angle(servo1, 30)

set\_servo\_angle(servo2, 30)

flipped = False