Flappy bird

```
# Flappy bird for a micro:bit in python
# http://blog.withcode.uk/2016/05/flappy-bird-microbit-python-tutorial-for-
beginners
from microbit import *
import random

display.scroll("Get ready...")

# Game constants
DELAY = 20                      # ms between each frame
FRAMES_PER_WALL_SHIFT = 20      # number of frames between each time a wall moves
a pixel to the left
FRAMES_PER_NEW_WALL = 100       # number of frames between each new wall
FRAMES_PER_SCORE = 50           # number of frames between score rising by 1

# Global variables
y = 50
speed = 0
score = 0
frame = 0

# Make an image that represents a pipe to dodge
def make_pipe():
    i = Image("00003:00003:00003:00003:00003")
    gap = random.randint(0,3)   # random wall position
    i.set_pixel(4, gap, 0)      # blast a hole in the pipe
    i.set_pixel(4, gap+1, 0)
    return i

# create first pipe
i = make_pipe()

# Game loop
while True:
    frame += 1

    # show pipe
    display.show(i)

    # flap if button a was pressed
    if button_a.was_pressed():
        speed = -8

    # show score if button b was pressed
    if button_b.was_pressed():
        display.scroll("Score:" + str(score))

    # accelerate down to terminal velocity
```

```
        speed += 1
        if speed > 2:
            speed = 2

        # move bird, but not off the edge
        y += speed
        if y > 99:
            y = 99
        if y < 0:
            y = 0

        # draw bird
        led_y = int(y / 20)
        display.set_pixel(1, led_y, 9)

        # check for collision
        if i.get_pixel(1, led_y) != 0:
            display.show(Image.SAD)
            sleep(500)
            display.scroll("Score: " + str(score))
            break

        # move wall left
        if(frame % FRAMES_PER_WALL_SHIFT == 0):
            i = i.shift_left(1)

        # create new wall
        if(frame % FRAMES_PER_NEW_WALL == 0):
            i = make_pipe()

        # increase score
        if(frame % FRAMES_PER_SCORE == 0):
            score += 1

        # wait 20ms
        sleep(20)
```

Source: https://blog.withcode.uk/2016/05/flappy-bird-microbit-python-tutorial-for-beginners/9/