Micro:bit and Minecraft Pixel Cakes

What you will need:

- A Raspberry Pi with Minecraft Pi edition / Windows Laptop with Minecraft Java edition
- Python 3
- A Micro:bit
- Read this blog on how to get started with David Whales BitIO library.

Introduction

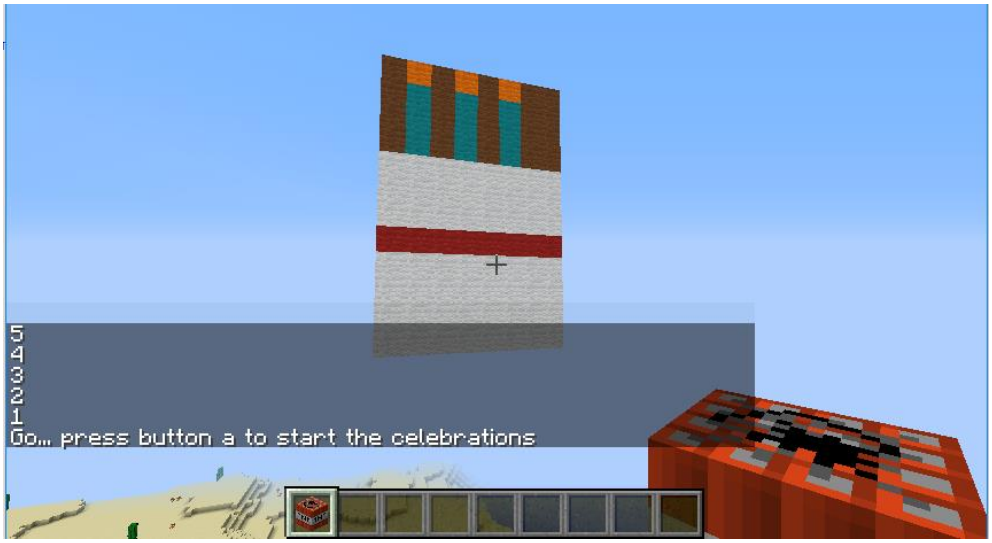
This code uses the Micro:bit as an interactive controller in Minecraft. You can read all about it in BitIO blog 1 here to fully understand how to set it up and run it. But suffice to say that the Brains behind it is David Whale. Over the course of the the last 7 months I have been integrating the Micro:bit into my Minecraft coding experiments. This is the latest… you will press the a and b buttons to generate Pixel Cakes in Minecraft to help celebrate the Raspberry Pi Birthday weekend on the 3-4 of March.

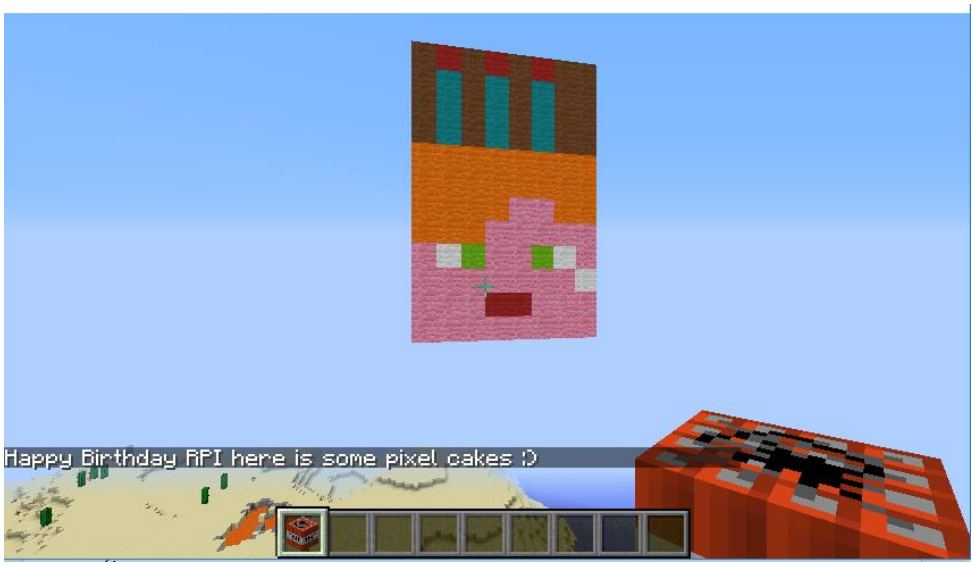
Once you have read all of the stuff above you can either download the completed code from the link below or follow the instructions below to complete the code, then run it. Good luck.

Link to the completed code: Here

Link to tutorial version which is 75% complete: Here

Example screenshots





Steps

1. Download the partially complete code and save it in the BitIO master folder in the ‘src’ folder. (Available here)
2. Open the code in Idle go to line 211.
3. Firstly we are going to type in the code to post the introduction comments to screen in Minecraft

mc.postToChat("Pi Birthday 3/4th March 2018... happy Birthday RPI!")

time.sleep(1)

mc.postToChat("5")

time.sleep(1)

mc.postToChat("4")

time.sleep(1)

mc.postToChat("3")

time.sleep(1)

mc.postToChat("2")

time.sleep(1)

mc.postToChat("1")

```
time.sleep(1)
mc.postToChat("Go... press button a to start the celebrations")
time.sleep(1)
```

4. Now underneath we are going to create a loop and code what will happen after the buttons are pressed:

```
while True:

  if microbit.button_a.was_pressed():
    #candle colours alternate between orange and red
    print_PixelArt(Cake1)
    time.sleep(2)
    print_PixelArt(Cake2)
    time.sleep(2)
    print_PixelArt(Cake1)
    time.sleep(2)
    print_PixelArt(Cake2)
    time.sleep(2)
    print_PixelArt(Cake1)
    time.sleep(2)
    print_PixelArt(Cake2)
    time.sleep(2)
    mc.postToChat("Now celebrate with some MC Pixel cakes press b")

  if microbit.button_b.was_pressed():
    mc.postToChat("Happy Birthday RPI here is some pixel cakes :)")
    #candle colours alternate between orange and red
    print_PixelArt(Alex1)
    time.sleep(2)
    print_PixelArt(Alex2)
    time.sleep(2)
    print_PixelArt(Pig1)
    time.sleep(2)
    print_PixelArt(Pig2)
    time.sleep(2)
```

```
print_PixelArt(Steve1)
time.sleep(2)
print_PixelArt(Steve2)
time.sleep(2)
print_PixelArt(Creeper1)
time.sleep(2)
print_PixelArt(Creeper2)
time.sleep(2)
print_PixelArt(Cake1)
time.sleep(2)
print_PixelArt(Cake2)
time.sleep(2)
#Final birthday message.
mc.postToChat("Happy Birthday!!!")
```

5. Now Check your code and save it and press f5 and run it. Congratulations, you should have now created your pixel cake animation in Minecraft.