

# MODDING MINECRAFT WITH PYTHON



## Enter the Minecraft world

- 1 Open Minecraft Pi from the main menu. Start a game and create a new world.
- 2 Walk around using the WSAD keys on the keyboard. Use Space to jump, and double tap Space to fly.



- 3 Press Tab on the keyboard to release your mouse cursor, and open Python 3 from the main menu.
- 4 Move your windows around so Minecraft and Python are side by side.

## Controlling Minecraft with Python

- 1 Open a new Python window and enter the following code:

```
from mcpi.minecraft import Minecraft

mc = Minecraft.create()

mc.postToChat("Hello world")
```

- 2 Run the code with **F5** and you should see the message "Hello world" appear in the Minecraft window.
- 3 Add the following lines to your code:

```
x, y, z = mc.player.getPos()
mc.setBlock(x+1, y, z, 1)
```



- 4 Run the code and you should see a block of stone appear near your player. If it's not in front of you, try looking around.
- 5 Change the value in the `setBlock` line from 1 to 2:

```
mc.setBlock(x+1, y, z, 2)
```

- 6 You should now see a block of grass appear. Try changing the number again and see which block gets placed.
- 7 Try changing `setBlock` to `setBlocks` to build a 10x10x10 cube rather than a single block:

```
mc.setBlocks(x+1, y+1, z+1, x+11, y+11, z+11, 1)
```

You should see a large solid cube of stone appear!

## TNT

The block ID for TNT is 46. There are two types of TNT: unexplosive TNT and explosive TNT. You want explosive TNT.

- 1 Build a solid cube of TNT. To get explosive TNT, you need to add a '1' to the end of your `setBlocks` line:

```
mc.setBlocks(x+1, y+1, z+1, x+11, y+11, z+11, 46, 1)
```

- 2 Go up to the cube of TNT and right-click to hit it with your sword. This will activate the TNT. Stand back and watch the show!

