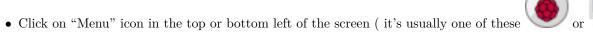
## Get Started with Minecraft Pi Edition & Python



## First Steps

- 1. Open up the "mcpi\_ideas" folder on the Desktop
- 2. Double click on "1\_Get\_Started.py" and Python (IDLE) will open.
- 3. Open up Minecraft





- Click "Start Game" -> "Create World"
- Don't full-screen Minecraft (the mouse pointer will go funny)

#### Move about a bit

- Once in Minecraft make sure you know how to get about
- ASWD
- Space bar to jump / fly
- Mouse to look, mouse buttons to build blocks and destroy them.
- ESC to get your mouse back and get out of the Minecraft

# Run your first code

- 1. Move the windows around so you can see this guide, IDLE and Minecraft
- 2. Press ESC & click back into python editor ( IDLE )
- 3. Press F5 to run the code
- 4. You may need to click the "Save then run" or press Enter
- 5. Quickly click back into Minecraft to see what happens.
- 6. Clicking on the Minecraft window entry in the menu bar at the top can help.

### Did you see it?

If not try one more time yourself. And then wave for assistance.

#### Well done

You have run your first program that manipulates Minecraft

### The Code Explained 1/3

```
from mcpi import minecraft
from mcpi import block

# Store the connection to Minecraft in a variable called mc
mc = minecraft.Minecraft.create()
```

Get the code that allows the python programming language to talk to Minecraft.

And create the connection, you have to be in a world in Minecraft for this to work

## The Code Explained 2/3

```
# Store the position player is standing in a variable called pos
pos = mc.player.getTilePos()
```

Python asks Minecraft what tile the player is standing on

# means a line is a comment in English and is not part of the program. We use them to explain what is going on in the code.

## The Code Explained 3/3

```
# Store a string which contains the x,y,z of your position
message = "You are at x="+str(pos.x)+", y="+str(pos.y)+", z="+str(pos.z)
# Print the message in the python screen
print(message)
# Send the message to the Minecraft chat
mc.postToChat(message)
# A quicker way to print the position
message2 = "You are at "+str(pos)
print(message2)
```

#### Make some blocks

```
Below your current code type

mc.setBlock(pos, block.DIAMOND_BLOCK)

above = pos
above.y = above.y + 4
mc.setBlock(above, block.TNT.id, 1)
```

- Run it with F5
- Look above you and below, can you see some new blocks?
- You can get a list of the blocks by typing "block." and then press CTRL + SPACE
- Experiment making different blocks and changing how far away they are

#### I'm walking on sunshine

What does it do when you run it?

Add this code below what you have already written

```
while True:
    pos = mc.player.getTilePos()
    mc.setBlock(pos, block.GOLD_BLOCK)
```

What happened?

### Moving on

Well done. Now delete these lines from our code so we can get on .

```
mc.setBlock(pos, block.DIAMOND_BLOCK)
above = pos
above.y = above.y + 4
mc.setBlock(above, block.TNT.id, 1)
while True:
    pos = mc.player.getTilePos()
    mc.setBlock(pos, block.GOLD_BLOCK)
```

#### Rainbow Road

Now add this piece of code

```
while True:
   pos = mc.player.getTilePos()
   num = (pox.x+pos.y+pos.z) % 16
   mc.setBlock(pos, block.WOOL.id, num)
```

- There is a mistake in this on purpose.
- It will appear in red in the Python window.
- See if you can see what the problem is and fix it.
- Once it works can you work out what the code is doing?

## Well done you have completed this bit