Raspberry Pi
Minecraft
Python coding

Tutorial by Andrew Oakley
Public Domain 17 May 2018 [www.cotswoldjam.org](http://www.cotswoldjam.org)

To start Minecraft, click the Pi menu - Games - Minecraft Pi

Click Start Game then click an existing game or click Create New

TAB key to switch between the Minecraft world and the normal mouse on the desktop. The TAB key is to the left of the letter Q.

ESC for the game menu

|  |  |
| --- | --- |
| Mouse to lookWSAD to moveSPACE to jumpLeft-click to destroy a blockRight-click to create a block1-9 to select a type of block | 0 to select the swordE to reassign blocks 0-9SPACE twice to flySPACE twice again to stop flyingSPACE once while flying to go upSHIFT while flying to go down |

To code with Minecraft, leave Minecraft running. Press the TAB key to release the mouse from the game, so you can use the mouse on the desktop.

Click Pi menu - Programming - Python3 (IDLE)

At this point your tutor may want you to open an existing program using File menu - Open.

Alternatively, to create a new program use File menu - New File

Once you have loaded or written your program, use Run menu - Run module or press F5.

Example Minecrft code:

from mcpi.minecraft import Minecraft

from mcpi import block

mc = Minecraft.create()

x,y,z = mc.player.getTilePos()

# Change the block under the player's feet to Glass

mc.setBlock(x, y, z-1, block.GLASS.id)

List of block types:

|  |  |
| --- | --- |
| 0 AIR1 STONE2 GRASS3 DIRT4 COBBLESTONE5 WOOD\_PLANKS6 SAPLING7 BEDROCK8 WATER\_FLOWING8 WATER9 WATER\_STATIONARY10 LAVA\_FLOWING10 LAVA11 LAVA\_STATIONARY12 SAND13 GRAVEL14 GOLD\_ORE15 IRON\_ORE16 COAL\_ORE17 WOOD18 LEAVES20 GLASS21 LAPIS\_LAZULI\_ORE22 LAPIS\_LAZULI\_BLOCK24 SANDSTONE26 BED30 COBWEB31 GRASS\_TALL35 WOOL37 FLOWER\_YELLOW38 FLOWER\_CYAN39 MUSHROOM\_BROWN40 MUSHROOM\_RED41 GOLD\_BLOCK42 IRON\_BLOCK43 STONE\_SLAB\_DOUBLE | 44 STONE\_SLAB45 BRICK\_BLOCK46 TNT47 BOOKSHELF48 MOSS\_STONE49 OBSIDIAN50 TORCH51 FIRE53 STAIRS\_WOOD54 CHEST56 DIAMOND\_ORE57 DIAMOND\_BLOCK58 CRAFTING\_TABLE60 FARMLAND61 FURNACE\_INACTIVE62 FURNACE\_ACTIVE64 DOOR\_WOOD65 LADDER67 STAIRS\_COBBLESTONE71 DOOR\_IRON73 REDSTONE\_ORE78 SNOW79 ICE80 SNOW\_BLOCK81 CACTUS82 CLAY83 SUGAR\_CANE85 FENCE89 GLOWSTONE\_BLOCK95 BEDROCK\_INVISIBLE98 STONE\_BRICK102 GLASS\_PANE103 MELON107 FENCE\_GATE246 GLOWING\_OBSIDIAN247 NETHER\_REACTOR\_CORE |

Wool is white by default, but can have another colour, for example red:

mc.setBlock(x, y, z, block.WOOL.id, 14)

|  |  |
| --- | --- |
| 0 White1 Orange2 Magenta3 Light blue4 Yellow5 Lime6 Pink7 Grey | 8 Light grey9 Cyan10 Purple11 Blue12 Brown13 Green14 Red15 Black |