Raspberry Pi®

CoderDojo Belfast

Python Pi Problem Solver

Yellow Block Road

The Pi Challenges

Decide how to write your own program.

We give you some of the pieces below. You choose how to put them together to solve the problem.

The Challenge

In “The Wizard of Oz”, Dorothy follows the Yellow Brick Road to find the Wizard. Can you build a Yellow Brick Road in Minecraft? Start simple with a flat road. If you can get that going, try a tricker challenge – build a road that follows the slope of the ground from where you start.

The Bits You Need

You'll need to find a type of block that's yellow, for a start! Find the name of the block in the file 'block.py', inside the folders 'api/python/mcpi' underneath your mcpi directory. (e.g. 'STONE'. But stone's not yellow. Can you find a block that is?)

Minecraft programs will usually start with the same stuff:

```
import mcpi.minecraft as minecraft
import mcpi.block as block

mc = minecraft.Minecraft.create()
```

Use a variable (or three – for x, y and z) to create a 'start position'. Use a 'for' loop (remember this from the magic sword problem? `for hit in hits:`) to count up a number from zero up to whatever you want (to do this you can use a bit of python that they give you for just this sort of situation: 'range'. See the example a bit below.

Work out the next position to place a block by adding the number to the start position. Try this out to get the idea:

```
for n in range(1, 10):
   print 100 + n
```

Remember how to place a block at position x, y, z:

```
mc.setBlock(x, y, z, block.STONE.id)
```

Don't just make the road one block wide. Use a second loop inside the first one to make a row of blocks, say, four blocks wide. Do this for every step along the road.

Remember: don't try to do it all at once. Build up the program step by step and test as you go.