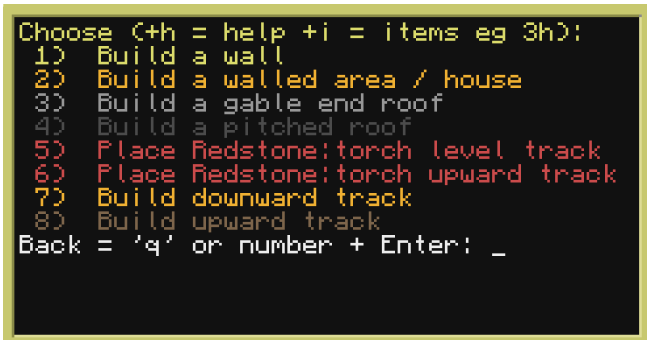
Option 9 Building and minecart tools



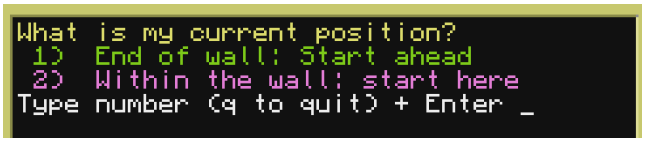
Option 9.1 Build a wall

A wall is built to the given length and height. Example is 6 blocks long x 4 high.

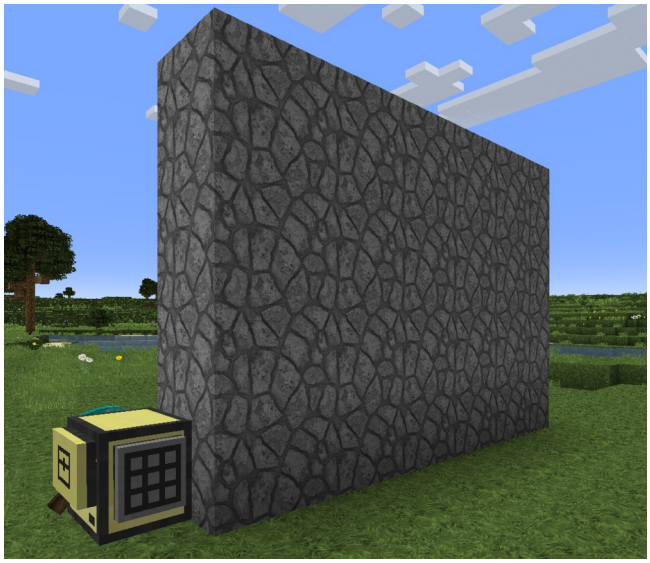
Starting position is either outside the wall as demonstrated by the screenshot below, or starting within the lower corner as seen on the help screen.

Enter the length and height of the wall.

Compensate wall position.
If option 1 chosen, the turtle moves forward before building.



The wall is built backwards 3 layers at a time
Turtle returns to ground level.



Option 9.2 Build a walled area / house

This function calls the build wall function above 4 times to create a building.

The turtle can start in it's current position, or move 1 block ahead, as with the single wall option.

```
Build a walled rectangle / house

Plan view          Side view

L |x|x|x|x|x|x|    |x|x|x|x|x|x|
e |x| | | | |x|    |x|x|x|x|x|x|
n |x| | | | |x|    |x|x|x|x|x|x|
g |x| | | | |x|    |x|x|x|x|x|x|
t |^|x|x|x|x|x|   T|T|x|x|x|x|x|
h  ^
   W i d t h       ^ T = Turtle

Enter to continue
```

Enter width, length and height

```
Building width (1-256) 6
Building length (1-256) 4
Building Height(1-50) 4_
```

Confirm starting position

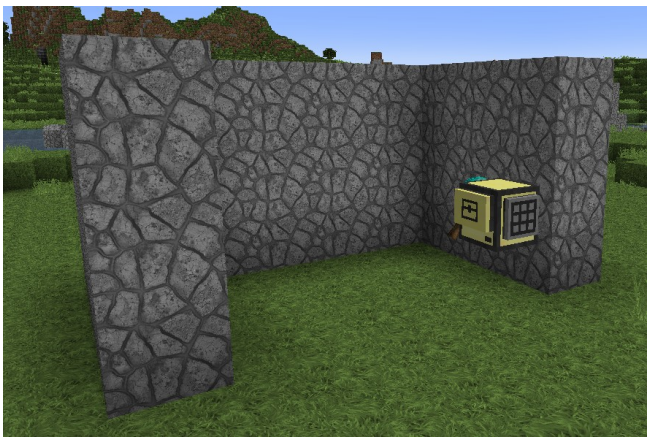
```
What is my current position?
 1)  Outside building: Start ahead
 2)  Within the walls: start here
Type number + Enter _
```

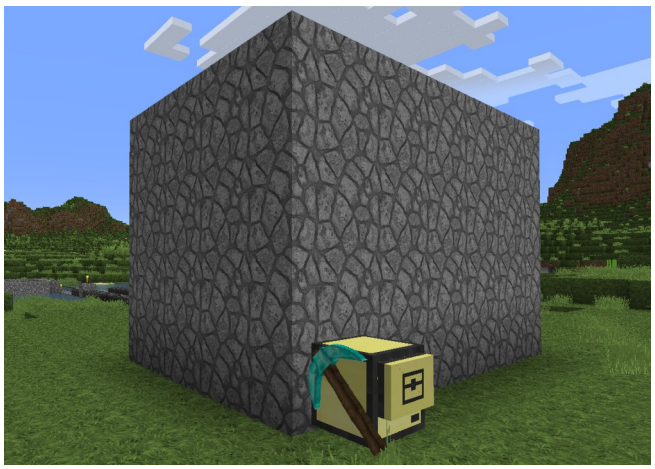
After the completion of the final wall section, the turtle returns to it's starting position, or 1 block behind if started within the wall boundaries.

Note the wall is 6 blocks wide (measured from the right of the turtle) and 4 blocks long (measured from the front of the turtle).

The distinction between width and length is important when moving on to the roofing.

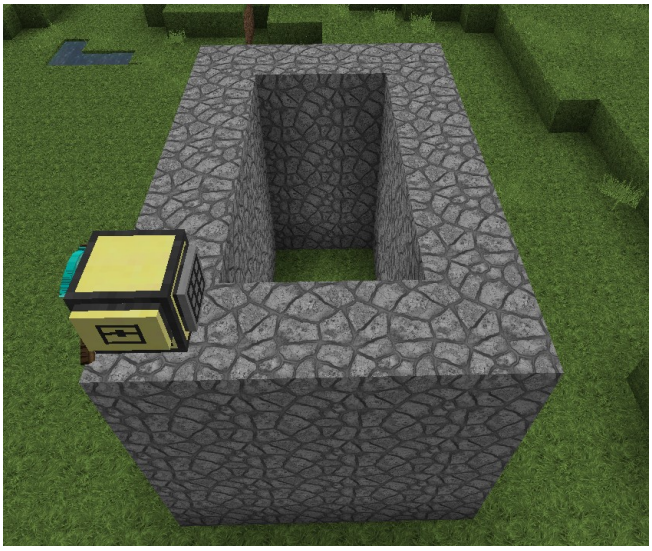
The turtle must be placed on top of the left corner of the narrowest dimension for roofing.





Option 9.3 Build a gable roof

Starting position



Choose the position of the turtle to suit the design of roof you want.

The position shown here builds a long narrow roof as per screenshot below

The help screen for a gable roof

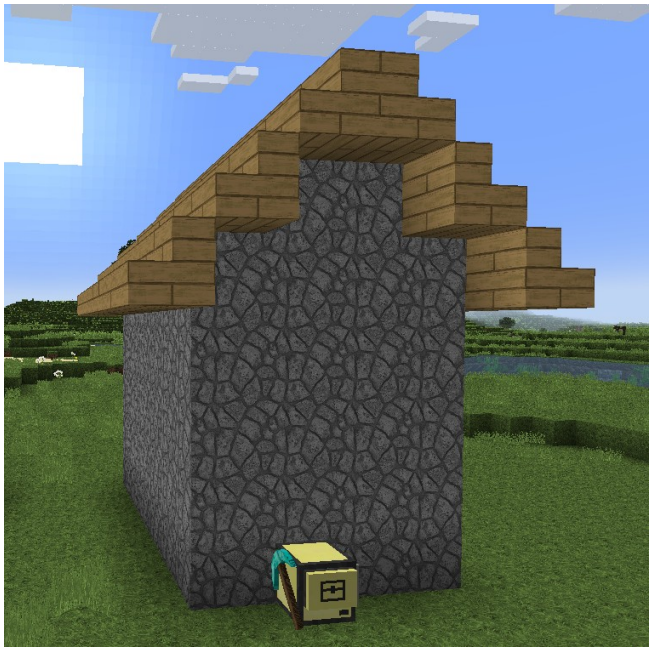
```
Build a gable roof
Gable built on right side of turtle
Plan view        End view (width)
                          +      gable top
L |x|x|x|x|x|       + + +       gable end
e |x| | | |x|     T + + + +     gable end
n |x| | | |x|    |x|x|x|x|x|  top of wall
g |x| | | |x|    |x|x|x|x|x|
t |x| | | |x|    |x|x|x|x|x|
h |^|x|x|x|x|    |x|x|x|x|x|
  W i d t h      W i d t h     ^T = Turtle

Enter to continue _
```

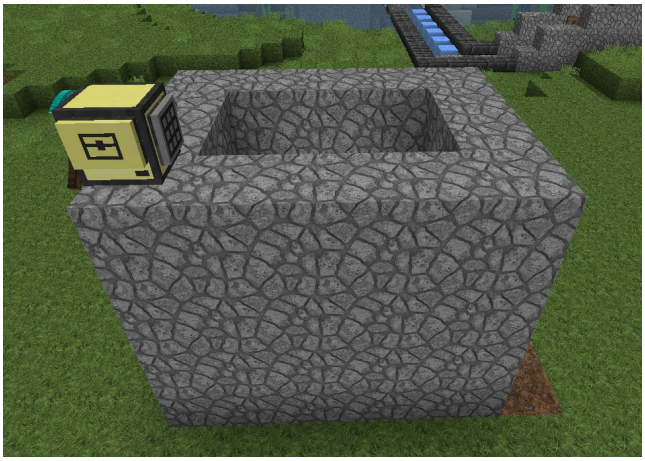
Enter the width and length of the building.
The roof will be extended 1 block around the perimeter automatically

```
Building width (1-256) 4
Building length (1-256) 6
Using stairs / planks for roof (y/n) y
```

The roof is constructed in 2 halves
The gables are added after the roof.

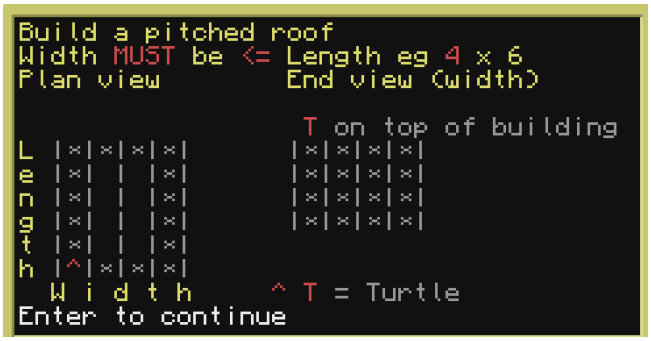


If the width of the building is an odd number, then the inventory asks for slabs as well.



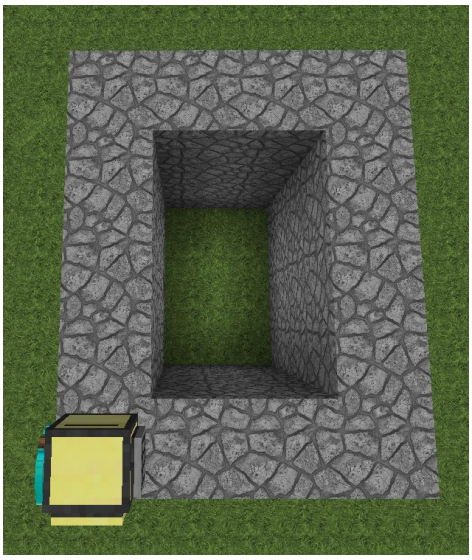
The slabs are placed at the end of the function, after the gables have been completed

Option 9.4 Build a pitched roof



NOTE for pitched roof. Shortest dimension is the WIDTH and the turtle MUST be placed with the shortest dimension on the right

If either width or length is an odd number then slabs will be required to cap the roof.



Option 9.5 Place redstone torch level rail / 9.6 upward track

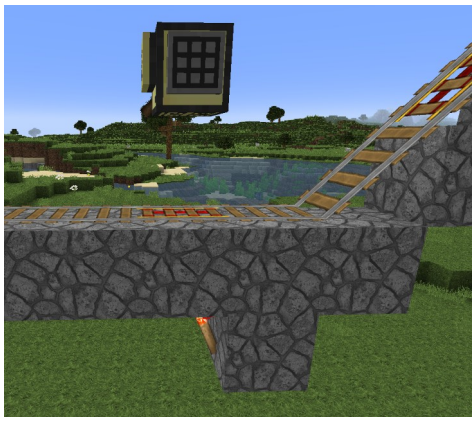
These 2 functions allow you to power a rail with a redstone torch placed beneath it, even when suspended above ground.

The function adjusts for the presence of an existing rail below the turtle, so can be placed above a rail as shown, or on a bare block.

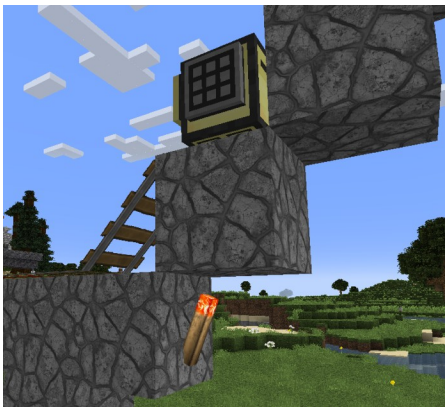
If on a sloping track, make sure the turtle is facing UP the slope.

The inventory will ask for a redstone torch and a suitable block to place it on

The following screenshots demonstrate option 9.5 place redstone torch level track. The track is in place and the turtle immediately above the rail.



The following screenshots demonstrate *option 9.6 place redstone torch upward track*. The track has not yet been placed and the turtle is on the base block:



Option 9.7 Build downward track / 9.8 Build upward track

Tracks are NOT placed, so can be used anywhere a ramp is needed, eg Nether or End worlds

This function builds a series of steps up or down.

If going down an optional auto choice stops when the ground is reached.

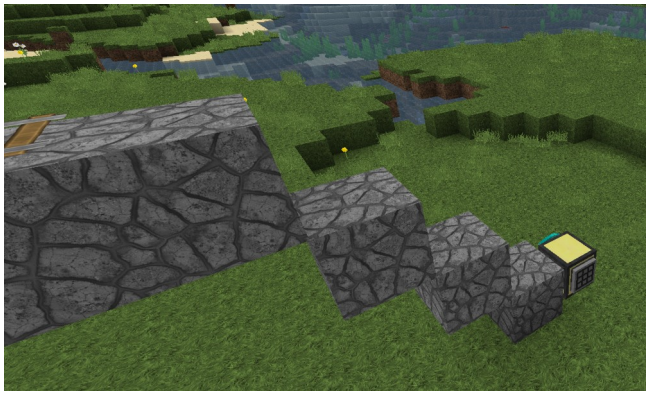
The starting position is the same for both.

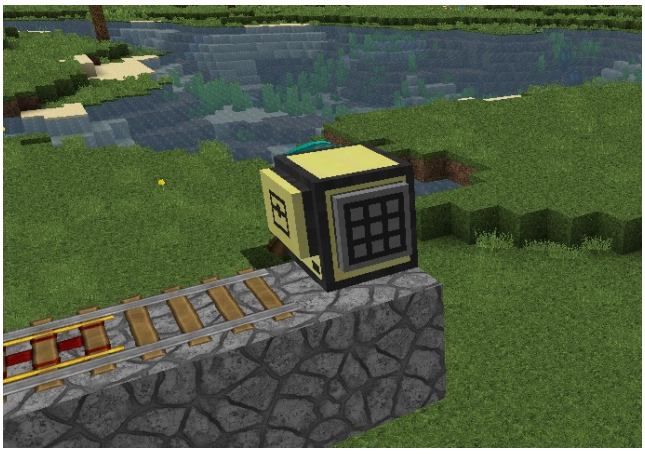
Do not start above an existing rail

Build downward track Enter blocks

Build upward track Enter blocks

Going down 0 (auto) blocks





Going up 5 blocks