Option 7 Area Shaping and Clearing

```
Choose (+h = help +i = items eg 3h):
 1) Clear field (inc trees)
 2) Clear a rectangle (+ u/d opt)
 3) Clear single wall up/down
 4) Clear rectangular wall section
 5) Clear hollow structure up/down
 6) Clear solid structure up/down
 7) Dig a trench
 8) Carve mountain side
 9) Place a floor or ceiling
10) Direct control of movement
Back = 'q' or number + Enter; _
```

### Option 7.1 Clear field (inc trees)

This function removes all blocks above ground level in the specified area.

Optional dirt can be selected to place on the surface, otherwise blocks are exposed and left .

The function is also used as part of the farm preparation in *Option 03 Farming*

```
Clear field
| | | | | |    Remove trees and flowers
| | | | | |    Fill holes
| | | | | |    Remove blocks > ground
| | | | | |
| | | | | |
|^| | | | |    ^ = Turtle position

Optional use dirt as surface


Enter to continue _
```

```
Width of the area (1-64) 8
Length of the area (1-64) 8
Dirt on the surface (y/n) y_
```
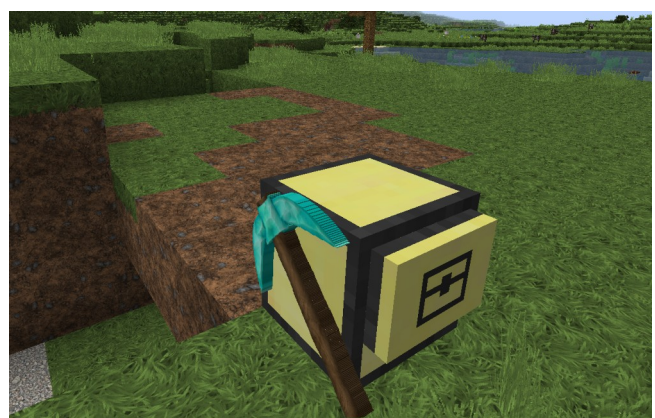
Option 7.2 Clear a rectangle (+ u/d opt)

This function digs out a rectangle of blocks with the option of removing the blocks above and / or below at the same time.

```
Clear rectangle

| | | | | |    Remove all blocks
| | | | | |    Optional dig up
| | | | | |    Optional dig down
| | | | | |
| | | | | |
|^| | | | |    ^ = Turtle position
  ^

Can be used to clear 3 layers at a time

Enter to continue _
```

The turtle can be positioned within the area of the rectangle, or 1 block away

The screenshots below show it placed within the boundaries

```
Rectangle width (1-256) 6
Rectangle length (1-256) 6
Remove blocks above? y
Remove blocks below? y
Am I outside clearing zone (y/n)? n_
```
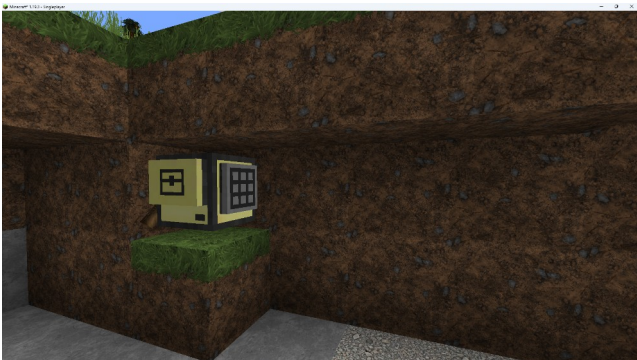
Option 7.3 Clear single wall


```
Clear wall
Plan view          Side view
                    T  T
>|>|x|x|x|x|x|     T|T|x|x|x|x|x|  Top
                     |x|x|x|x|x|x|
                     |x|x|x|x|x|x|
                     |x|x|x|x|x|x|
                     |x|x|x|x|x|x|
                    T|T|x|x|x|x|x|  Base

T = Turtle top / bottom/ inside / out
Bottom to top or top to bottom
Enter to continue _
```

Starting positions screenshot:
Any of the positions shown here and reflected in the help screen above can be used.

The combination of menus determining direction of travel and starting position are used to move the turtle into the correct start, which is within the wall structure.
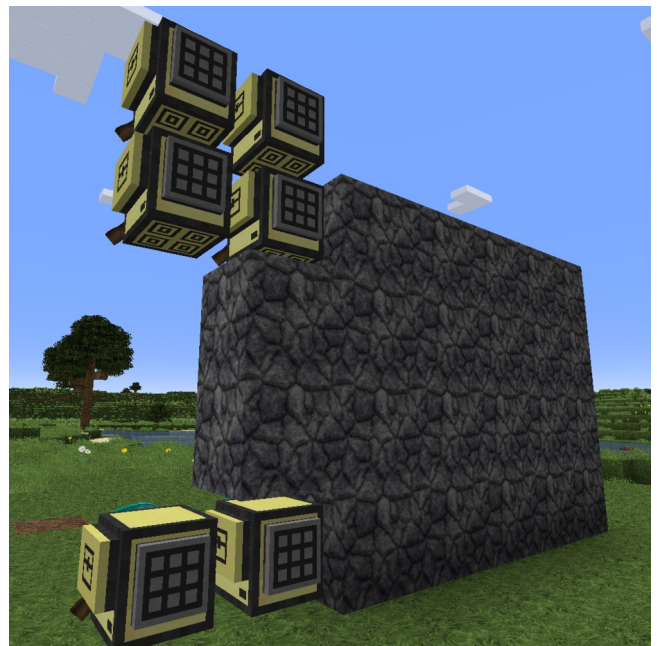
Wall dimensions


```
Length of wall (1-256) 6
Height of wall (1-50) 4_
```

Going up or going down?


```
Which direction?
 1)  Bottom -> Top
 2)  Top -> Bottom
Type number + Enter
```

Final positioning if going down (top to bottom)


```
Exact position?
 1)  On top of clearing zone
 2)  In front of clearing zone
 3)  Inside clearing zone
 4)  Above AND outside
Type number + Enter _
```

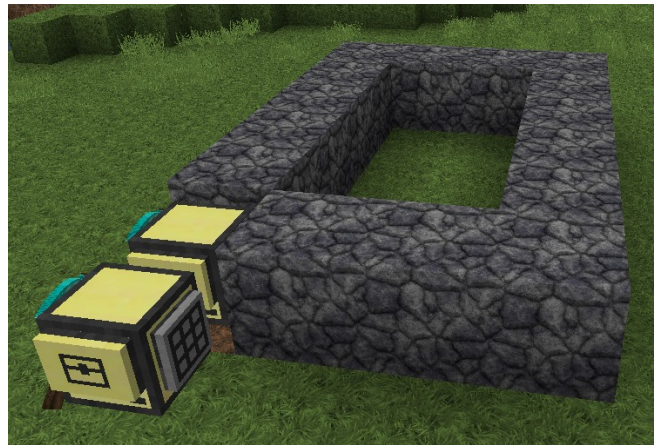Final positioning if going up (bottom to top)


```
Am I outside clearing zone (y/n)? _
```

In progress starting at the bottom.

Option 7.4 Clear rectangular wall section

```
Clear rectangle perimeter only

Plan view
| | | | | |   Remove all blocks
| |x|x|x| |   Optional dig up
| |x|x|x| |   Optional dig down
| |x|x|x| |
| |x|x|x| |
|^| | | | |   ^ = Turtle position
 ^
Can be used to clear 3 layers at a time

Enter to continue _
```
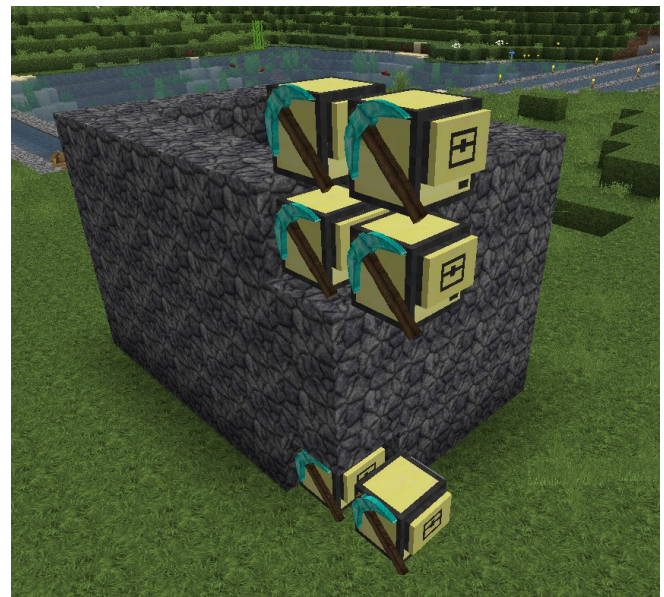
Turtle positions screenshot:

If placed outside the wall, then the turtle moves into the wall and continues from there

```
Perimeter width (1-256) 4
Perimeter length (1-256) 6
Remove blocks above? (y/n) n
Remove blocks below? (y/n) n
Am I outside clearing zone (y/n)? y_
```

Option 7.5 Clear hollow structure up/down

```
Demolish cube structure
Plan view        Side view
                  T T
|x|x|x|x|x|x|    T|T|x|x|x|x|x|x|
|x|x|x|x|x|x|     |x|x|x|x|x|x|
|x|x|x|x|x|x|     |x|x|x|x|x|x|
|x|x|x|x|x|x|     |x|x|x|x|x|x|
|x|x|x|x|x|x|     |x|x|x|x|x|x|
|^|x|x|x|x|x|    T|T|x|x|x|x|x|x|
 ^
^ T = Turtle (top/base in/out)

Enter to continue _
```

Turtle positions screenshot:
The possible starting positions are the same as a single wall as shown in *Option 7.3 Clear a single wall*

The responses to direction of movement are used to move into the correct starting position.

Get structure dimensins

```
Hollow object width (1-256) 4
Hollow object length (1-256) 6
Depth/Height (1-256) 4
Remove ceiling? (y/n) n
Remove floor? (y/n) n
```

Remove floor / ceiling

Going up or going down?

```
Which direction?
 1)  Bottom -> Top
 2)  Top -> Bottom
Type number (q to quit) + Enter _
```

Final positioning if going down (top to bottom)

```
Exact position?
 1)  On top of clearing zone
 2)  Outside clearing zone
 3)  Inside clearing zone
 4)  Above AND outside
Type number + Enter _
```

Final positioning if going up (bottom to top)

```
Am I outside clearing zone (y/n)? _
```

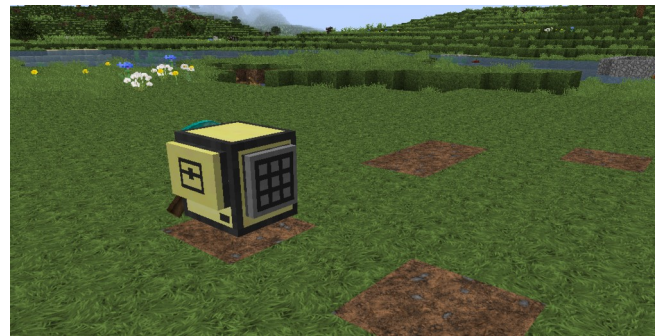## Option 7.6 Clear solid structure up/down

For turtle positions see screenshot from Option 7.5 Clear hollow structure up / down

Interface is identical except:

Questions regarding floor / ceiling removal are NOT displayed

Option 7.7 Dig a trench


```
Dig a trench (Plan view)

     |>| | | | | | |

| |     > = Turtle
| |
| |
| |
|^|     ^ = Turtle

Enter to continue _
```
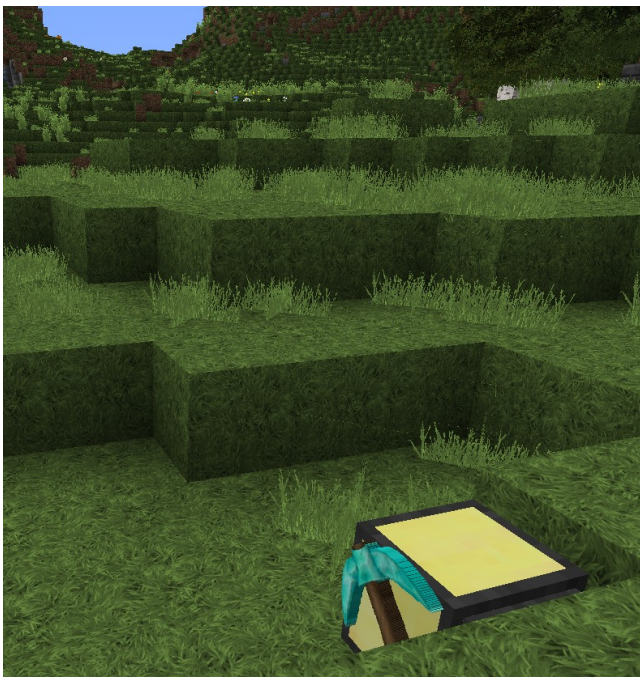

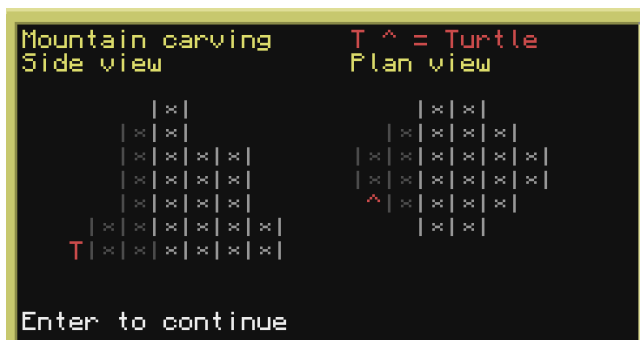Place turtle at start of trench
Provide depth and length.

```
Depth of the trench (1-64) 2
Trench length? 0 = continuous 12
```

The depth chosen follows the landscape

These screenshots show a depth of 2 and length 12

Option 7.8 Carve mountain side

This does a similar job to carving a solid structure, but is quicker and takes fewer moves as the contour of the landscape is taken into account.

Option 7.9 Place a floor or ceiling


```
Place / Replace floor or ceiling

Plan view        Side view
| | | | | |      |x|x|x|x|x|
| | | | | |      T              Ceiling
| | | | | |
| | | | | |
| | | | | |      T              Floor
|^| | | | |      |x|x|x|x|x|

^ T = Turtle position

Enter to continue
```



```
Laying what?
  1)  Replacing current floor
  2)  New floor over existing
  3)  Replacing current ceiling
  4)  New ceiling under existing
Type number (q to quit) + Enter _
```



```
Enter 0 for on-site placement
If in deep water or above reach
Enter approx depth/height 0
Width of floor (1-64) 8
Length of floor (1-64) 8_
```

Option 7.10 Direct control of movement

This is the same as

Option 8.3 Create Enclosed Area

Instructions repeated here for convenience

```
Place me anywhere!
Menu or direct command interface.

Commands:

direction + number eg f2 = forward 2

f = forward  b = backward
l = left     r = right
u = up       d = down


Enter to continue
```

On the surface, use option 1
In a cave you might want to use 2, so you get a roof over your head!

```
Choose your path option
 1)  Simple path
 2)  Covered 2 block high path
Type number + Enter
```

Command driven interface

Menu driven interface

```
Commands:

direction + number eg f2 = forward 2
direction without number = 1

f = forward  b = backward
l = left     r = right
u = up       d = down

q = quit

command
```

```
Choose next step
 1)  Forward 1 block
 2)  Forward # blocks
 3)  Back 1 block
 4)  Back # blocks
 5)  Turn Right
 6)  Turn Left
 7)  Up 1 block
 8)  Down 1 block
 9)  Quit
Type number + Enter
```

An example using the command driven interface:
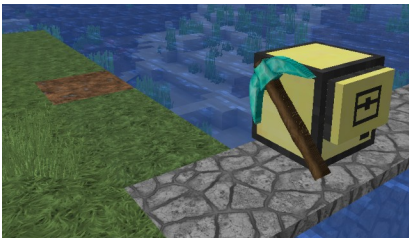
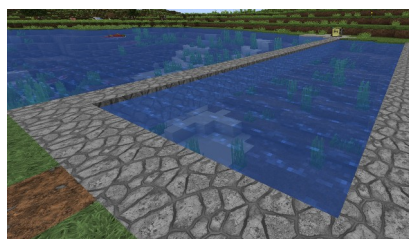Starting position "Move forward 6 blocks, placing down"

```
command f6_
```


After command "f6" Next "r" then forward 19

```
command r
```

```
command f19
```


Completed right-angle path