Option 10 Measuring tools

```
Choose (+h = help +i = items eg 3h):
  1)  Measure height
  2)  Measure depth
  3)  Measure length
  4)  Measure greatest depth
  5)  Borehole: Analyse blocks below
Back = 'q' or number + Enter:
```

Option 10.1 Measure Height

The help screen indicates the 3 conditions available for measuring height.

```
Place me on floor,
              Measured Height:
|×|×|×|×|     7. Overhead obstruction
              7. NOT turtle.detect()
  |×|×|×|
  |×|×|×|
  |5|×|×|      4. Specific block found
  |×|×|×|
  |×|×|×|
  |×|×|×|
  T|×|×|×|     T = Turtle

Enter to continue
```

These appear on the next screen

```
Measure using?
  1)  Obstruction above
  2)  No further blocks ahead
  3)  Detect specific block ahead
Type number + Enter 3
```

Obstruction above:

```
Method: Until obstruction above
Height measured: 7 blocks

Thank you for using 'survival toolkit'
> _
```

No further blocks ahead:

```
Method: Until no block detected ahead
Height measured: 6 blocks

Thank you for using 'survival toolkit'
> _
```

Specific block found

```
Search for? eg 'ore', 'obsidian'
> ore_
```

```
Found minecraft:diamond_ore
Height measured: 4 blocks

Thank you for using 'survival toolkit'
>
```

Option 10.2 Measure depth

The help screen indicates the 3 conditions available for measuring depth.

```
Depth measurement
Place me on the floor above pit / edge
     T
1|×|×|
2|×|×|
3|×|×|
4|×|×|            Measured depth:
5|×|5|            5. Specific block found
6                 6. NOT turtle.detect()
7|×|×|×|×| |      6. Obstruction below

Enter to continue _
```

These appear on the next screen

```
Measure using?
 1)   Water/Lava/Obstruction below
 2)   No further blocks ahead
 3)   Detect specific block ahead
Type number + Enter
```

Water / Lava / Obstruction below

```
Method: Until obstruction below
Depth measured: 9 blocks

Thank you for using 'survival toolkit'
> _
```

Add water source for testing

```
Method: Until obstruction below
minecraft:water found at 7

Thank you for using 'survival toolkit'
> _
```

No further blocks ahead:

```
Method: Until no block detected ahead
Depth measured: 7 blocks

Thank you for using 'survival toolkit'
> _
```

Specific block found

```
Search for? eg 'ore', 'obsidian'
> ore_
```

```
Found minecraft:diamond_ore
Depth measured: 5 blocks

Thank you for using 'survival toolkit'
>
```

Option 10.3 Measure Length


```
Length measurement

1 2 3 4 5 6 7 8 9 10
                           8. No block up
x|x|x|x|x|x|5| |x|x|       7. Search block
T                    |x|   9. Obstruction
x|x|x|x|5|x|x| |x|x|       5. Search block
                           8. No block down

T = Turtle

Enter to continue _
```

```
Measure using?
 1)  Obstruction ahead
 2)  No further blocks above
 3)  No further blocks below
 4)  Detect specific block above
 5)  Detect specific block below
Type number + Enter _
```

```
Method: Until obstruction ahead
Length measured: 12 blocks

Thank you for using 'survival toolkit'
>
```

```
Method: Until no block detected above
Length measured: 10 blocks

Thank you for using 'survival toolkit'
```

```
Method: Until no block detected below
Length measured: 11 blocks

Thank you for using 'survival toolkit'
 > _
```

```
Method:Until search: 'ore' above met
Length measured: 6 blocks
Found minecraft:diamond_ore

Thank you for using 'survival toolkit'
>
```
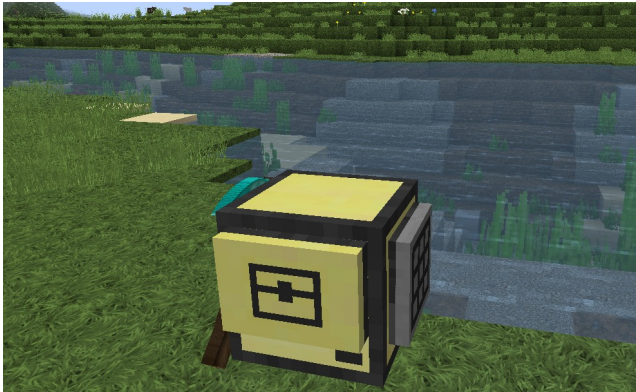
```
Method:Until search: 'ore' below met
Length measured: 4 blocks
Found minecraft:diamond_ore

Thank you for using 'survival toolkit'
>
```

Option 10.4 Measure Greatest depth

This function measures the greatest depth of a lake, river etc


```
Place Turtle at water edge.
Returns max depth. Water plants removed

   T                              T
| x| x|  |  |  |  |  |  |  |  |  |  |  | x|
| x| x|  |  |  |  |  |  |  |  |  | x| x|
| x| x|  |  |  |  |  |  | x| x| x| x|
| x| x| x|  |  | p|  |  | x| x| x| x| x|
| x| x| x|  |  | p| x| x| x| x| x| x| x|
| x| x| x| x| d| x| x| x| x| x| x| x| x| x|
| x| x| x| x| x| x| x| x| x| x| x| x| x| x| x|

Enter to continue _
```

It removes the water plants as it goes to ensure accurate readings

If you know the width of the water select option 1 Player entered.

```
Measure using?
 1)  Player entered
 2)  No further water below
Type number + Enter 2_
```

If width not known choose option 2 No further water below.

This will cause the turtle to cross the water for measurement purposes first, then dive down and go along the bottom of the water.

```
Greatest depth measured: 6
Width of water: 27

Thank you for using 'survival toolkit'
> _
```

Option 10.5 Borehole: Analyse blocks below

This function digs down to a chosen level, recording the block name (or air / water / lava) as it goes.

At the base it writes a file called "boreholeX.txt" where the X is substituted by the ID number of the turtle.
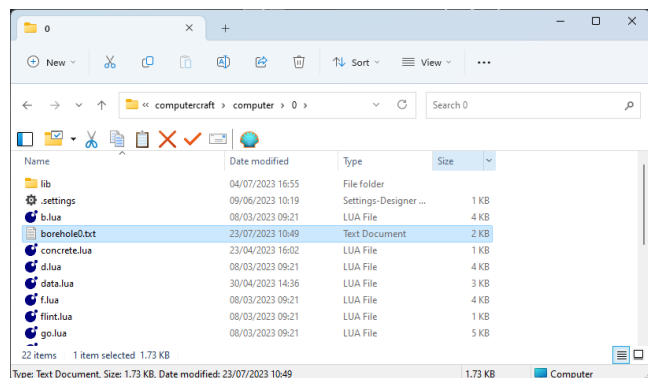
It then returns to the surface

Help screen:

Enter current level and level to descend

Text file in Windows Explorer

Screenshot of typical output viewed in Notepad