

Code for TinkerCAD Codeblocks




Create a brick building.




For more details see:

<http://www.penguintutor.com/3dprint>




```
Create New Object front-wall  
Create Variable num_bricks_height 4  
Create Variable num_bricks_wide 15  
Create Variable num_bricks_deep 10  
Create Variable distance_x 10.5  
Create Variable distance_x_even 5  
Create Variable distance_z 3.5
```

```
// Front row  
Count with brick_height from 0 to num_bricks_height by 2
```

```
// Odd Row  
Do  
Count with brick_position from 0 to num_bricks_wide by 1  
Do  
Add    < W 10 L 5 H 3 edge 0 Edge Steps 10  
Move: X: 0 ++ brick_position * distance_x Y: 0 Z: 2.5 ++ distance_z * brick_height
```




```
// Even Row  
Count with brick_position from 0 to num_bricks_wide by 1  
Do  
Add    < W 10 L 5 H 3 edge 0 Edge Steps 10  
Move: X: brick_position * distance_x ++ 0 ++ distance_x_even Y: 0 Z: 2.5 ++ distance_z * 1 ++ brick_height
```




```
// Left side  
Count with brick_height from 0 to num_bricks_height by 2
```

```
// Odd Row  
Do  
Count with brick_position from 0 to num_bricks_deep by 1  
Do  
Add    < W 10 L 5 H 3 edge 0 Edge Steps 10  
Rotate around Axis z by 90 Degrees from Pivot  
Move: X: -2.5 Y: 8 ++ brick_position * distance_x Z: 2.5 ++ distance_z * brick_height
```




```
// Even Row  
Count with brick_position from 0 to num_bricks_deep by 1  
Do  
Add    < W 10 L 5 H 3 edge 0 Edge Steps 10  
Rotate around Axis z by 90 Degrees from Pivot  
Move: X: -2.5 Y: brick_position * distance_x ++ -2.5 ++ distance_x_even Z: 2.5 ++ distance_z * 1 ++ brick_height  
Add Object 
```




```
// back  
Count with brick_height from 0 to num_bricks_height by 2
```

```
// Odd Row  
Do  
Count with brick_position from 0 to num_bricks_wide by 1  
Do  
Add    < W 10 L 5 H 3 edge 0 Edge Steps 10  
Move: X: 5 ++ brick_position * distance_x Y: num_bricks_deep ++ 10.5 Z: 2.5 ++ distance_z * brick_height
```

```
// Even Row  
Count with brick_position from 0 to num_bricks_wide by 1  
Do  
Add    < W 10 L 5 H 3 edge 0 Edge Steps 10  
Move: X: brick_position * distance_x ++ -5 ++ distance_x_even Y: num_bricks_deep ++ 10.5 Z: 2.5 ++ distance_z * 1 ++ brick_height
```

```
// right side  
Count with brick_height from 0 to num_bricks_height by 2
```

```
// Odd Row  
Do  
Count with brick_position from 0 to num_bricks_deep by 1  
Do  
Add    < W 10 L 5 H 3 edge 0 Edge Steps 10  
Rotate around Axis z by 90 Degrees from Pivot  
Move: X: -2.5 ++ num_bricks_wide * 10.5 Y: 2.5 ++ brick_position * distance_x Z: 2.5 ++ distance_z * brick_height
```

```
// Even Row  
Count with brick_position from 0 to num_bricks_deep by 1  
Do  
Add    < W 10 L 5 H 3 edge 0 Edge Steps 10  
Rotate around Axis z by 90 Degrees from Pivot  
Move: X: -2.5 ++ num_bricks_wide * 10.5 Y: brick_position * distance_x ++ 3 ++ distance_x_even Z: 2.5 ++ distance_z * 1 ++ brick_height
```