HSHB-Logo

Unser HSHB-Logo als 3D-Objekt!



hshb-logo.stl

Das Logo wurde mit openSCAD designed.

1. Variablen definieren

```
  gap = 0.0;
  xsize = 3.5;
  ysize = xsize;
  zsize = 3.5;
  magnetHeight = 2.0;
  magnetDiam = 4.0;
```

2. Ein Pixel definieren

```
  module 3dPixel(xpos, ypos)
  {
      translate(v=[xpos*(gap+xsize),ypos*(gap+ysize),0])
      cube(size=[xsize, ysize, zsize]);
  }
```

3. Ein Loch für einen Schlüsselring

```
  module RingHole(xpos, ypos)
  {
      difference(){
          3dPixel(xpos, ypos);
translate(v=[xpos*(gap+xsize)+0.5*xsize,ypos*(gap+ysize)+0.5*ysize,0.5*zsize
])
          cylinder(h=1.1*zsize, r=0.4*xsize, $fn=20, center=true);
      }
  }
```

4. Stege, um diagonal angrenzende Pixel zu verbinden

```
  module PixelSteg(x1, y1, x2, y2, rot=45)
  {
translate(v=[(x1+x2)/2*(gap+xsize)+0.5*xsize,(y1+y2)/2*(gap+ysize)+0.5*ysize
,zsize/5/2])
      rotate([0,0,rot])
      cube(size=[abs(x1-x2)*xsize, ysize, zsize/5],center=true);
  }
```

5. Ein Loch für einen Magneten

```
  module MagnetHole(xpos, ypos)
  {
translate(v=[xpos*(gap+xsize)+0.5*xsize,ypos*(gap+ysize)+0.5*ysize,magnetHei
ght/2])
      cylinder(h=magnetHeight, r=magnetDiam/2, $fn=20, center=true);
  }
```

6. Das Logo aus einzelnen Pixeln zusammenstellen

```
  module hshbLogo()
  {
      union()
      {
          3dPixel(3,0);
          3dPixel(4,0);
          3dPixel(12,0);
          3dPixel(4,1);
          3dPixel(13,1);
          3dPixel(5,2);
          3dPixel(13,2);
          3dPixel(5,3);
          3dPixel(6,3);
          3dPixel(13,3);
          3dPixel(15,3);
          for(i = [5:9])
          {
              3dPixel(i,4);
          }
          3dPixel(12,4);
          3dPixel(13,4);
          3dPixel(14,4);
          3dPixel(1,5);
          3dPixel(2,5);
          for(i = [5:14])
          {
              3dPixel(i,5);
          }
          for(i = [1:13])
```

```
        {
            3dPixel(i,6);
        }
        for(i = [2:4])
        {
            3dPixel(i,7);
        }
        for(i = [6:12])
        {
            3dPixel(i,7);
        }
        3dPixel(2,8);
        3dPixel(3,8);
        3dPixel(7,8);
        3dPixel(10,8);
        3dPixel(2,9);
        3dPixel(7,9);
        3dPixel(10,9);
        for(i = [5:11])
        {
            3dPixel(i,10);
        }
        for(i = [4:10])
        {
            3dPixel(i,11);
        }
        3dPixel(12,11);
        3dPixel(7,12);
        3dPixel(9,12);
        3dPixel(10,12);
        for(i = [6:11])
        {
            3dPixel(i,13);
        }
        3dPixel(5,14);
        3dPixel(8,14);
        3dPixel(12,14);
        3dPixel(7,15);
        3dPixel(9,15);
        for(i = [6:7])
        {
            3dPixel(i,16);
        }
        for(i = [9:11])
        {
            3dPixel(i,16);
        }
        3dPixel(8,16);
        3dPixel(8,15);
        //RingHole(8,15);
        3dPixel(5,17);
```

```
            3dPixel(6,17);
            3dPixel(9,17);
            3dPixel(10,17);
            3dPixel(6,18);
        }
        PixelSteg(4,1,5,2);
        PixelSteg(12,0,13,1);
        PixelSteg(14,3,15,4);
        PixelSteg(11,10,12,11);
        PixelSteg(11,13,12,14);
        PixelSteg(6,13,5,14);
    }
```

7. Und zum Schluss endlich alles zusammenfügen und rendern

```
    //Logo mit Loch für Magnet
    difference()
    {
        hshbLogo();
        MagnetHole(8,6);
    }
```

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