Project Title : The Rat Menagerie
Video : https://media.oregonstate.edu/media/0_u5mkkbt8
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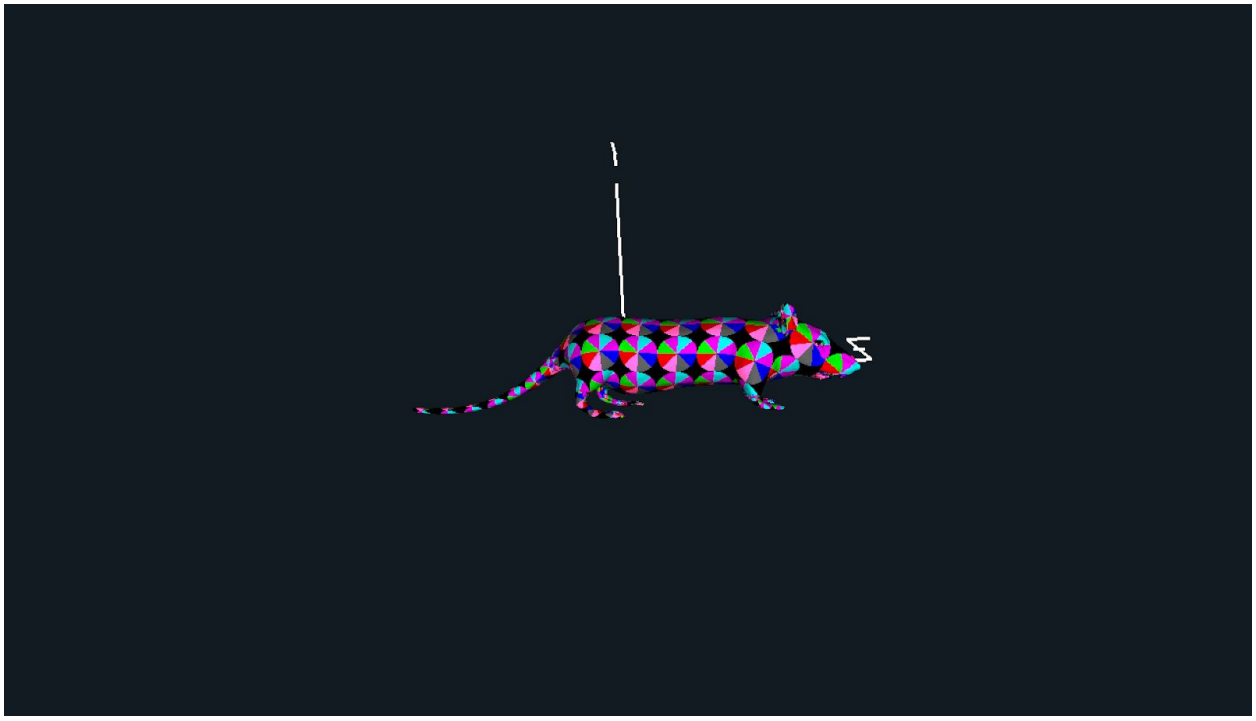
In this project, I used the slope equation which is “(y2-y1)/(x2-x1)” to create the pattern.



The part of the codes for the pattern in the circles:

```
if(sp<((numins*uSize)+(uSize/2))&&tp>
((numint*uSize)+(uSize/2))){

if(fs<sfa)
{colorf=red;}
else if(fs>sfa)
{colorf=lilac;}

}
else if(sp>((numins*uSize)+(uSize/2))&&tp>
((numint*uSize)+(uSize/2)))
{

if(fs>sfb)
{colorf=green;}
else if(fs<sfb)
{colorf=magenta;}

}
else
if(sp<((numins*uSize)+(uSize/2))&&tp<((numint*uSize)+(uSize/2
)))
{

if(fs<sfc)
{colorf=darkgrey;}
else if(fs>sfc)
{colorf=blue;}

}
```

```
if(fs<sfc)
{colorf=darkgrey;}
else if(fs>sfc)
{colorf=blue;}

}
else if(sp>((numins*uSize)+(uSize/2))&&
tp<((numint*uSize)+(uSize/2)))
{

if(fs>sfd)
{colorf=cyan;}
else if(fs<sfd)
{colorf=purple;}

}

float uSizeh = uSize/2.;

          float sc = numins *uSize+ uSizeh ;
     float tc = numint *uSize+ uSizeh ;
     float sr = s - sc;
     float tr = t - tc;
     float f = (sr*sr)/(uSizeh *uSizeh )+(tr*tr)/(uSizeh
*uSizeh);
      float m = smoothstep( 1-uTol, 1+uTol, f )  ;
    gl_FragColor = mix( colorf, vec4(0.,0.,0.,1.), m );
```

When the size of the circles are increased,