

Human GPU #0015 – Half pixel?

Hey human...you probably wondered, what happens when a triangle fills just a part of a pixel?
We need to fill it or not?

The physical led, in fact, can have just one color! no cheating on that.

Either you fill it completely or not.

So, how do we get sharp and and nice-looking shapes on a finite number of pixel then?

Short answer, you can't, but there are some tricks you can put in place..."antialiasing", rings a bell to you?
We won't dive into it...as I'm pretty sure your calculation power is pretty limited...

Can you draw a triangle and fill it?

Vertex shader

```
attribute vec2 aPosition;  
  
void main() {  
    gl_Position = vec4(aPosition.xy, 0.0, 1.0);  
}
```

Fragment shader

```
precision highp float;  
uniform vec3 uColor;  
  
void main() {  
    gl_FragColor = vec4(uColor.rgb, 1.0);  
}
```

Buffers

```
{  
  "data": [  
    -0.75, -0.8,  
    0.5, 0.5,  
    0.5, -0.5  
  ]  
}
```

Attributes

```
{ "aPosition": { "buffer": "data", "size": 2 } }
```

Uniforms

```
{ "uColor": [1.0, 1.0, 0.0] }
```

