



```
1 using System.Collections.Generic;
2 using UnityEngine;
3
4 /// <summary>
5 /// Logical representation of an NOR (NOT OR) gate.<br/><br/>
6 /// The NOR gate is also a universal gate.
7 /// </summary>
8 public class NOrGate : Circuit
9 {
10     public NOrGate() : this(Vector2.zero) { }
11
12     public NOrGate(Vector2 startingPos) : base("NOR", 2, 1, startingPos)
13     { }
14
15     /// <summary>
16     /// Returns an output to update if the output has changed due to
17     /// alterations in input power statuses.
18     /// </summary>
19     /// <returns>The list of outputs that should have their connections
20     /// called.</returns>
21     protected override List<Output> UpdateOutputs()
22     {
23         bool outputStatus = Outputs[0].Powered;
24         List<Output> outputs = new List<Output>();
25
26         // NOR gate representation
27         Outputs[0].Powered = !(Inputs[0].Powered || Inputs[1].Powered);
28
29         if (outputStatus != Outputs[0].Powered || MaterialNotMatching())
30             outputs.Add(Outputs[0]);
31
32         return outputs;
33     }
34
35     /// <summary>
36     /// Checks all outputs to determine if the output node material is not
37     /// matching its power status.<br/><br/>
38     /// This is utilized within custom circuits to force update calls that
39     /// would normally not occur due to the nature of UpdateOutputs().
40     /// </summary>
41     /// <returns>Whether any output material does not match its power
42     /// status.</returns>
43     private bool MaterialNotMatching()
44     {
45         if (Outputs[0].StatusRenderer == null) return false;
46
47         return (Outputs[0].Powered && Outputs
48             [0].StatusRenderer.sharedMaterial !=
49             CircuitVisualizer.Instance.PowerOnMaterial) ||
```

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41	(!Outputs[0].Powered && Outputs	
	[0].StatusRenderer.sharedMaterial !=	
	CircuitVisualizer.Instance.PowerOffMaterial);	
42	}	
43	}	