Alphabet: 0,1  
States: s0, s1  
Initial state: s0  
Accepting state: s0  
Transitions:  
 s0,0,s1  
 s0,1,s1  
 s1,0,s0  
 s1,1,s0

|  |  |  |
| --- | --- | --- |
| States | 0 | 1 |
| S0 | S1 | S1 |
| S1 | S0 | S0 |

As you can tell from the basic illustration, this circuit is just a continual feedback loop in that any input results in the output of S0 since that is the accepting state.

Black is S0 to S1

Orange is S1 to S0