|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Current State** | **3-Bit Input** | **Clock input** | **Ivalid Input** | **Reset Input** | **Next State** |
| Flash Red | XXX | 1 | 1 | 1 | Red |
| Red | 000 | 1 | 1 | 1 | Red |
| Red | 001 | 1 | 1 | 1 | Right Red |
| Red | 01X | 1 | 1 | 1 | Green |
| Red | 1XX | 1 | 1 | 1 | Left Green |
| Yellow | XX0 | 1 | 1 | 1 | Red |
| Yellow | XX1 | 1 | 1 | 1 | Right Red |
| Right Red | XXX | 1 | 1 | 1 | Red |
| Green | XXX | 1 | 1 | 1 | Yellow |
| Left Green | X1X OR XX1 | 1 | 1 | 1 | Green |
| Left Green | X00 | 1 | 1 | 1 | Yellow |
| ANY | XXX | 0 OR 1 | 0 OR 1 | 0 | Flash Red |