Jiacheng Zhang

Lab 4 Report

ECE 2031 L07

12 Feb 2022

电脑屏幕的照片

低可信度描述已自动生成

**Figure 1.** UML state diagram implementing three states (Red, Green, Blue), two inputs (xmas, cool), and three outputs (r\_en, g\_en, b\_en) state machine.

**TABLE 1**

STATE TRANSITION TABLE FOR STATE MACHINE OF DECORATIVE LIGHT SYSTEM

表格

描述已自动生成

图示, 示意图

描述已自动生成

**Figure 2.** Schematic of a state machine with chips’ pin number annotation implementing a decorative light system.

应用程序

中度可信度描述已自动生成

**Figure 3.** A simulation waveform for all possible input and output combinations of the decorative light system.

![图片包含 游戏机

描述已自动生成]()

**Figure 4.** Breadboard circuit implementing the state machine of a decorative light system. The 1st, 2nd, and 4th switches respectively represent the signal “cool,” “xmas,” and “resetn.” The yellow wire is the clock signal. The two LED lights are the current state indicator.

图示, 示意图

描述已自动生成

**Figure 5.** Schematic of a state machine with chips’ type and propagation delay implementing a decorative light system. The maximum clock frequency for the circuit is 8.5 MHz.