

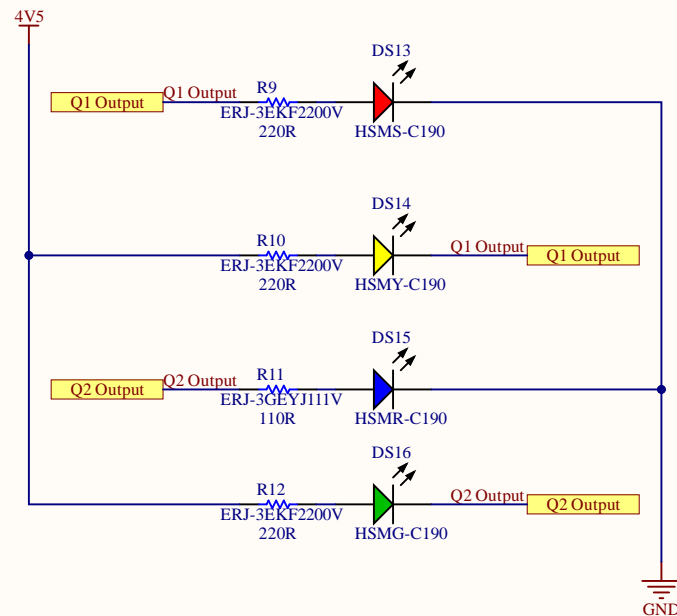
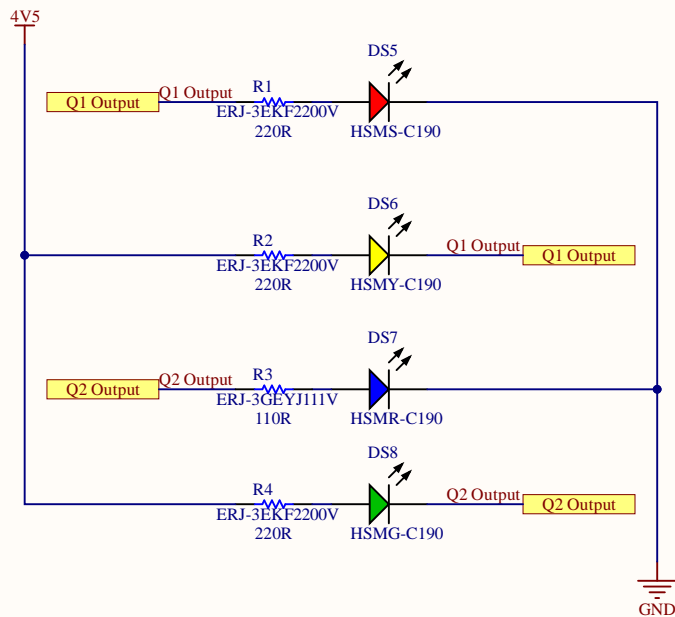
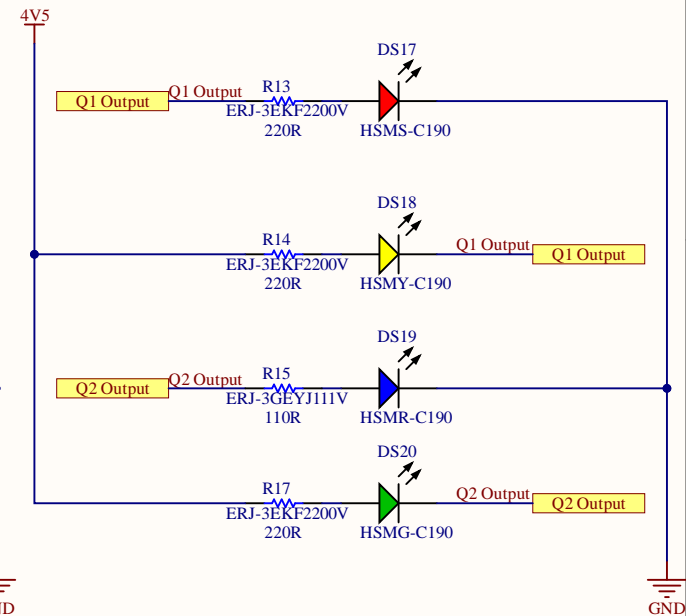
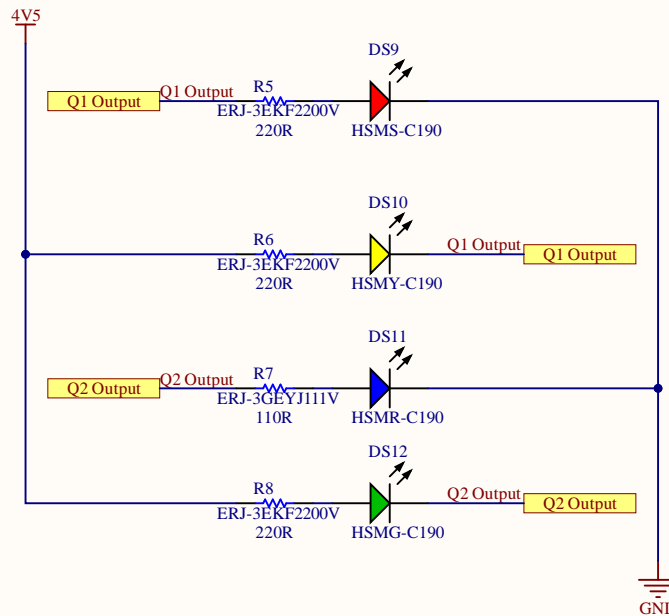
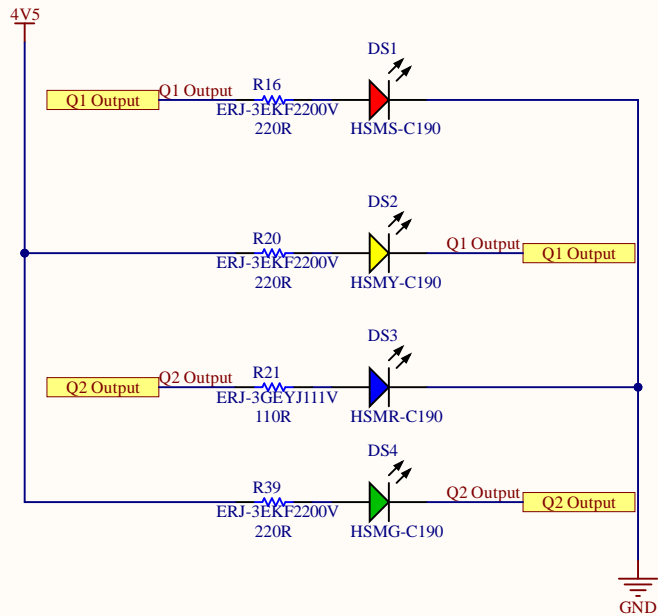
tH = 348mS
tL = 343mS
freq = 1.444Hz
[555 Timer Calculator Link](#)

The circuit diagram shows a 4-bit parallel adder implemented using a CD74HC73M96 counter (U2) and four transistors (Q1, Q2, Q3, Q4). The counter is configured with VCC at pin 4 and GND at pin 11. The 555 timer output is connected to pin 1 (1CP). The counter's outputs are connected to the bases of the transistors: Q1 (pin 12, 1Q), Q2 (pin 13, 1Q-bar), Q3 (pin 9, 2Q), and Q4 (pin 8, 2Q-bar). The emitters of all transistors are connected to GND. The collectors are connected to a 4V5 supply. The outputs of the transistors are labeled Q1 Output, Q2 Output, Q3 Output, and Q4 Output. The circuit is titled "Holiday Tree" and is part of a larger project titled "4-bit Parallel Adder".

Title		Holiday Tree		Ilona Lameka Ridwan Hussain Azra Rangwala	
Size	Number			Revision	A
Letter					
Date:	10/19/2024			Sheet of	PCB Lab
File:	HolidayTree_Schematic_Logic.SchDoc			Drawn By:	

Discrete R, G, B, & Y LEDs

All Resistors are 0603



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Holiday Tree			Revision	
Size	Number		A	
Letter				
Date:	10/19/2024		Sheet of	
File:	HolidayTree_Schematic_LEDs.SchDoc		Drawn By: PCB Lab	