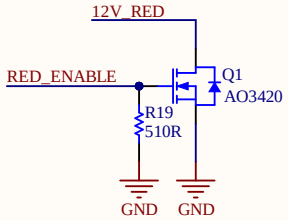
LED Current Calculation
Supply Voltage: 12V
Red LED voltage drop: 2.1V
Green/Blue LED voltage drop: 3.1V

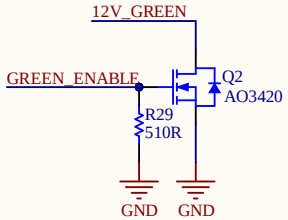
Current through red LEDs
- I = (12V - 2.1V)/510R = 19.41mA

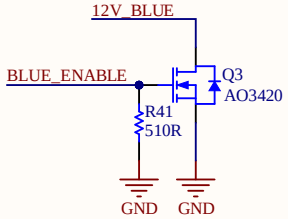
Current through blue/green LEDs
- I = (12V - 3.1V)/430R = 20.70mA

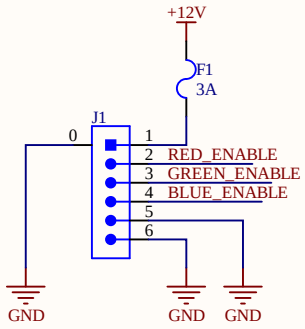
Total current through Q1:
- I = 19.41mA * 32 = 621.12 mA

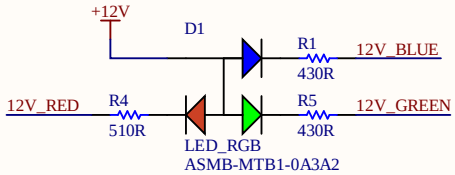
Total current through Q2/Q3:
- I = 20.70mA * 32 = 662.4 mA

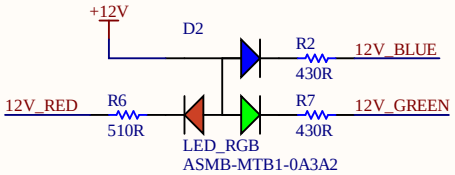


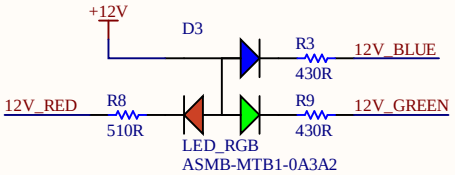


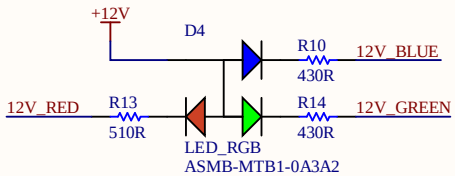


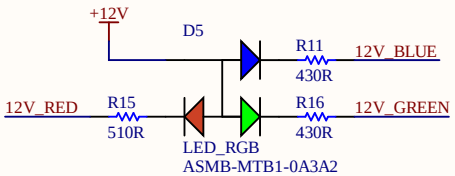


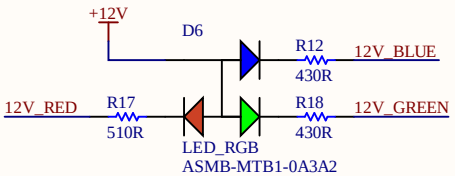


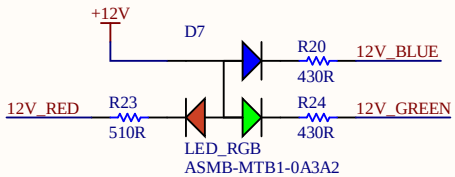


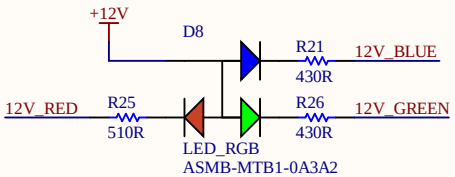


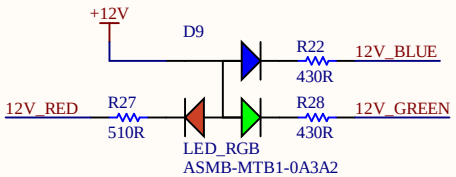


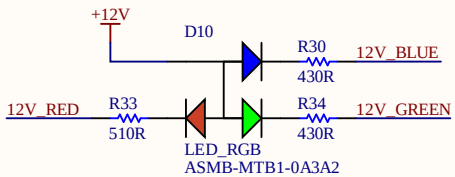


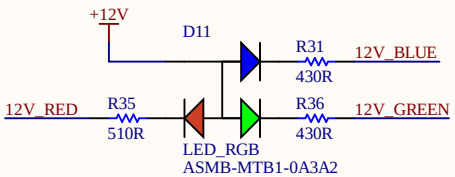


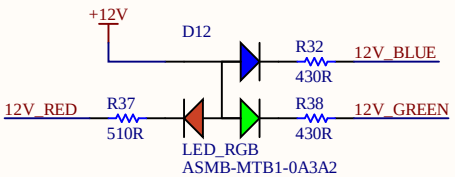


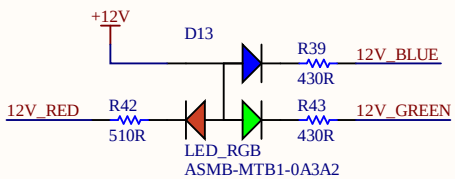


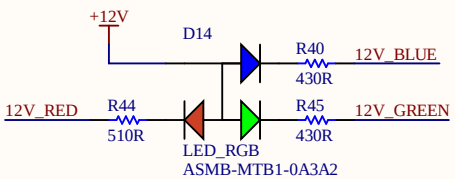


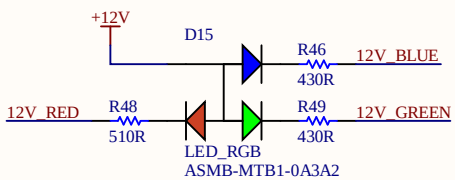


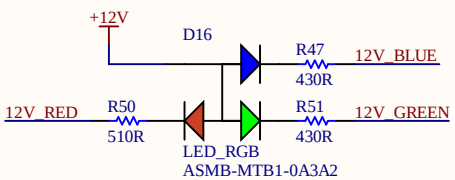






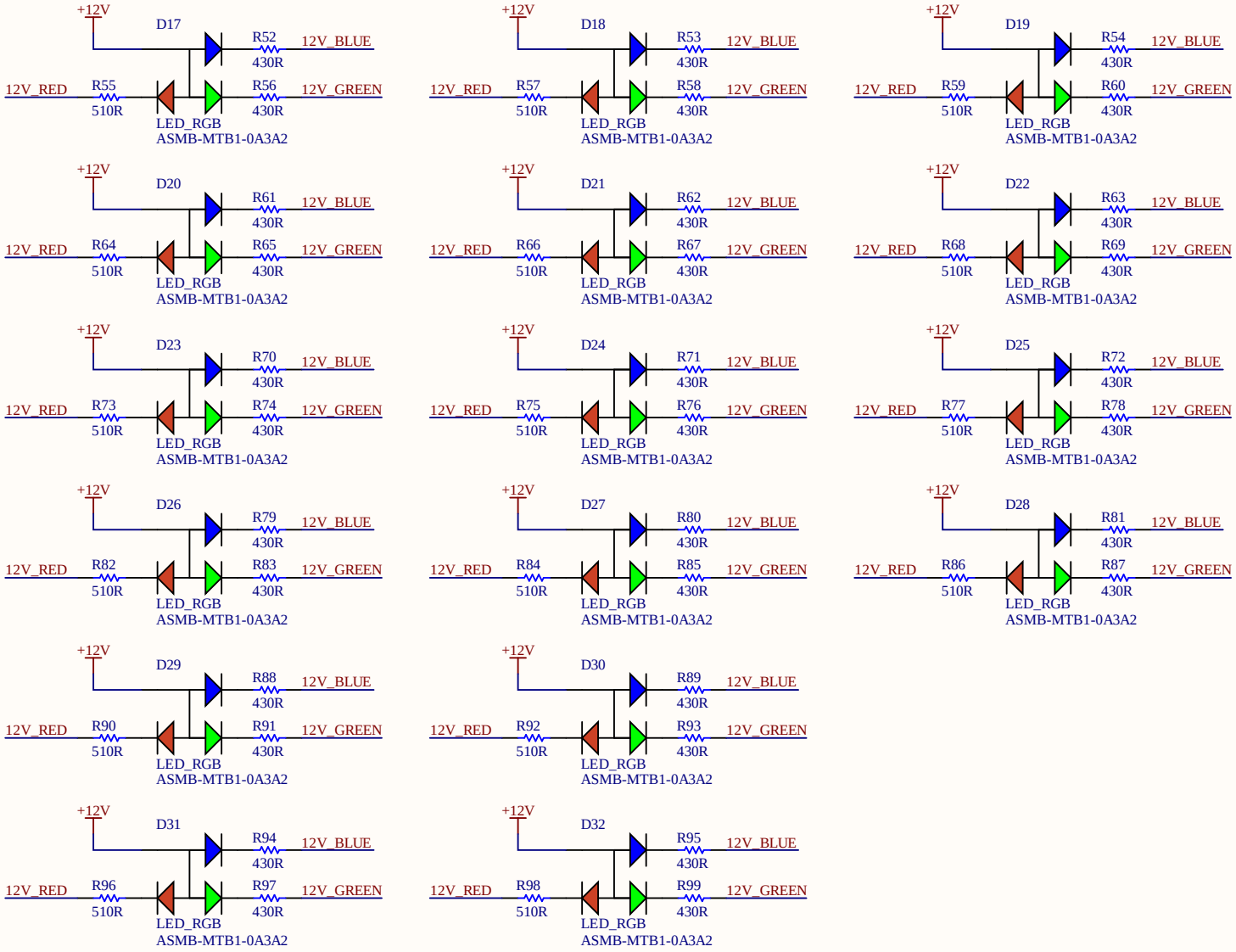






Title *		
Size: Letter	Drawn By: Tony Liu, Kyle Hong	
Date: 5/18/2020	Sheet 1 of 1	
File: C:\Users\lance.bantoto\MarsRover2021-hardware\Projects\LED Matrix\Rev1\LED Matrix.SchDoc		

UW ROBOTICS TEAM



Title *			UW ROBOTICS TEAM
Size: Letter	Drawn By: *		
Date: 5/18/2020	Sheet * of *		
File: C:\Users\lance.bantoto\MarsRover2021-hardware\Projects\LED Matrix\Rev1\LED Matrix-2.SchDoc			