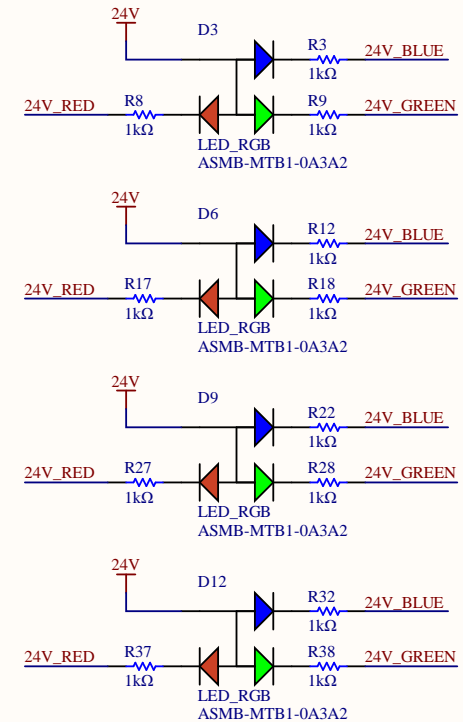
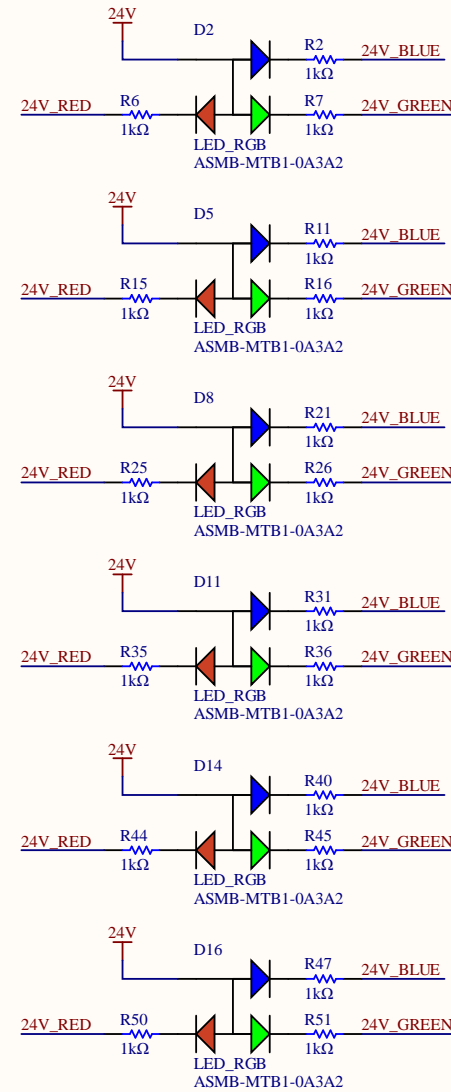
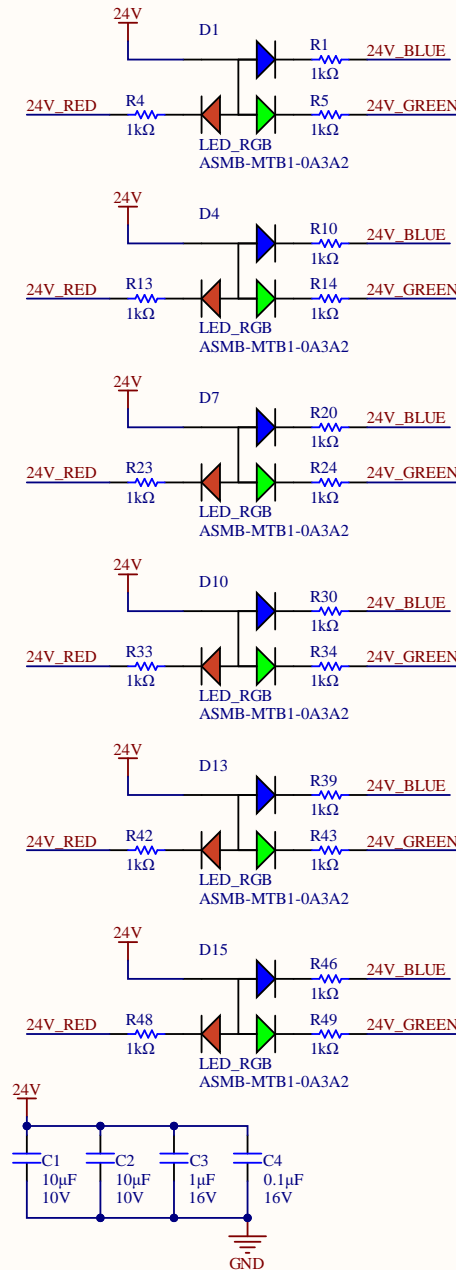
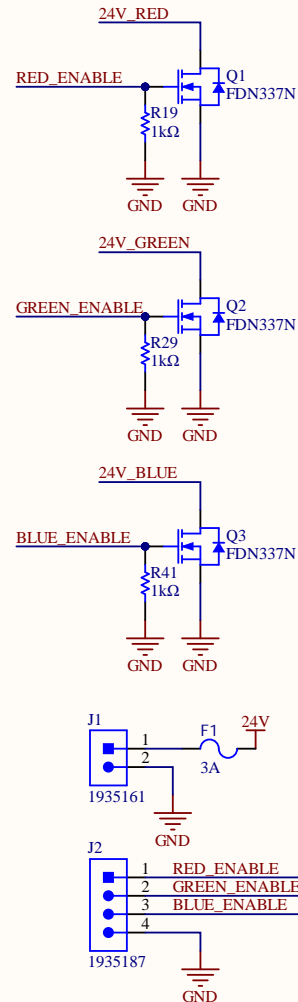


LED Resistance Calculation
 Supply Voltage: 24V
 Red LED voltage drop: 2.1V
 Green/Blue LED voltage drop: 3.1V

Resistance for red LEDs:
 $R = (24V - 2.1V) / 20mA = 1095 \text{ ohms}$

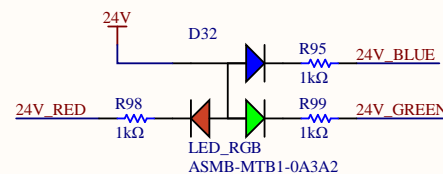
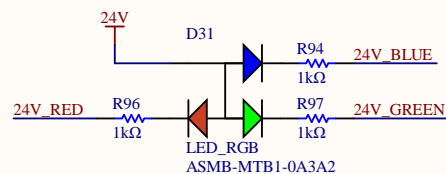
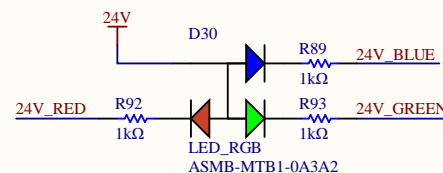
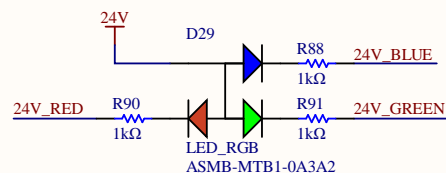
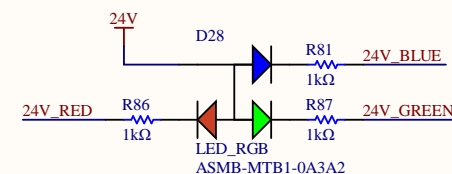
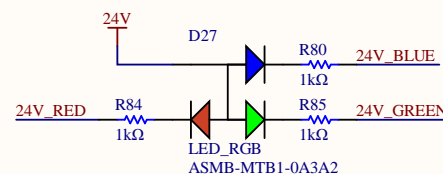
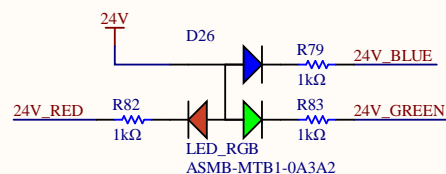
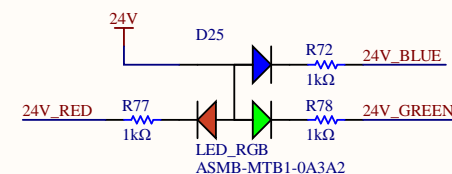
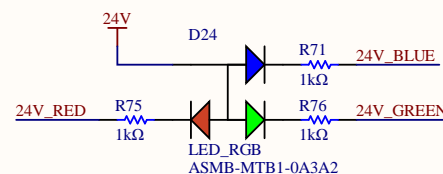
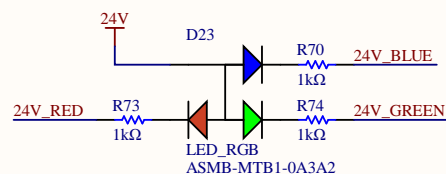
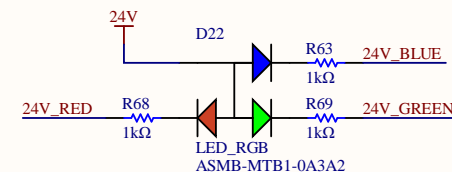
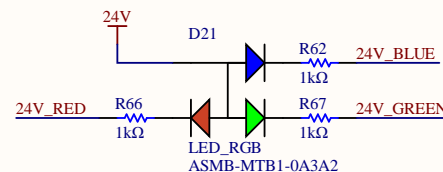
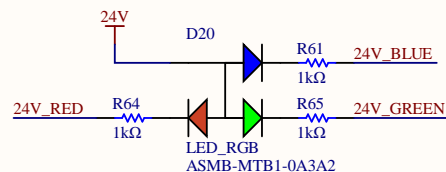
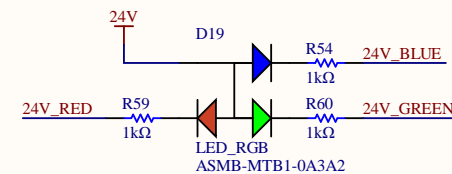
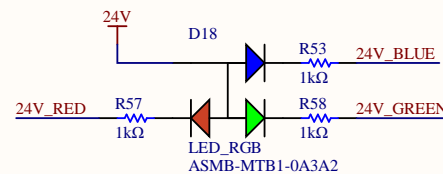
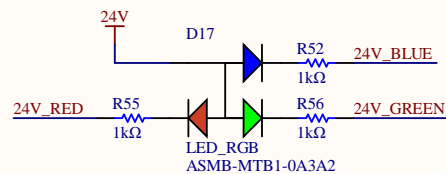
Resistance for blue & green LEDs:
 $R = (24V - 3.1V) / 20mA = 1045 \text{ ohms}$

 Old calculations for 12V...(scroll in note)



A

A



B

B

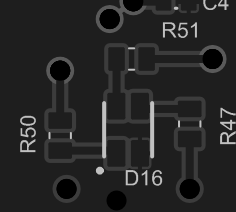
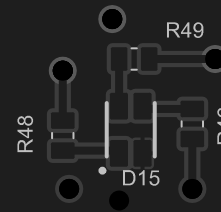
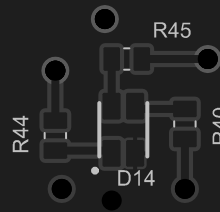
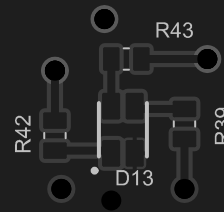
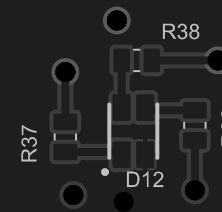
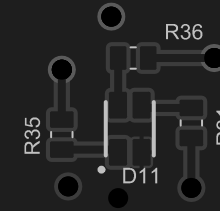
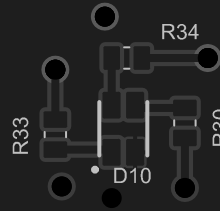
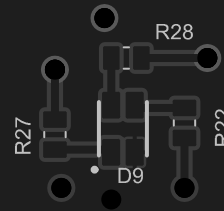
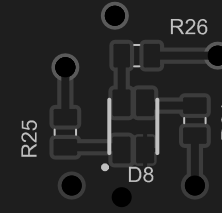
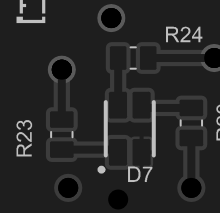
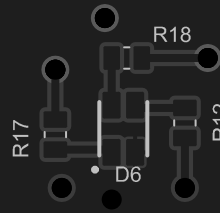
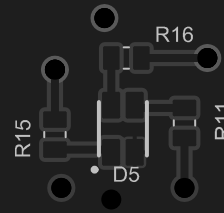
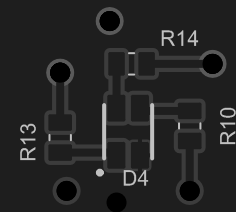
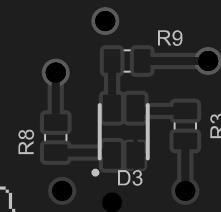
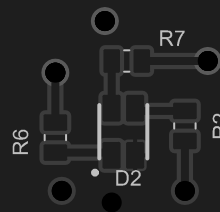
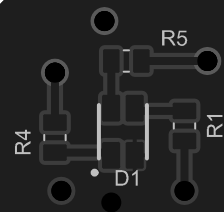
C

C

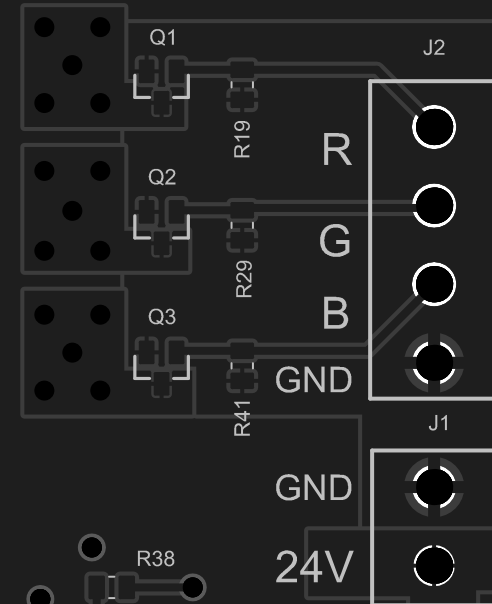
D

D

Title *		*
Size: Letter	Drawn By: *	*
Date: 2020-06-05	Sheet* of *	*
File: C:\UWRT\MarsRover2021-hardware\Projects\LED Matrix\Rev1\LED Matrix-2. SchDoc		



LED MATRIX
REV 1
JUNE 2020
EMILY ADAM



Board Stack Report