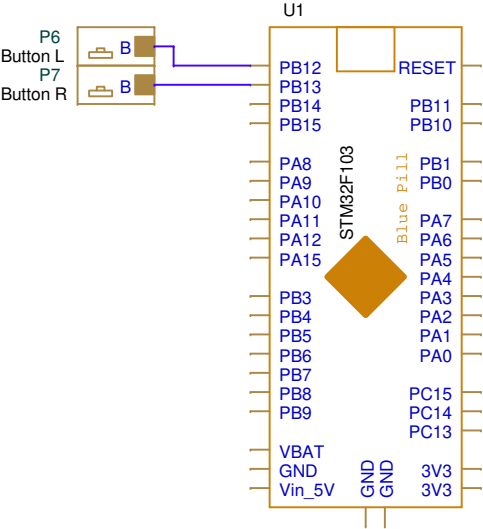


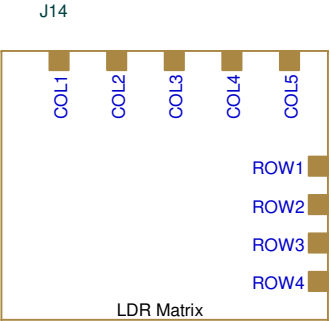
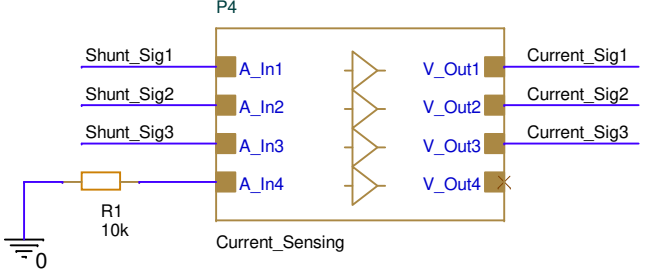
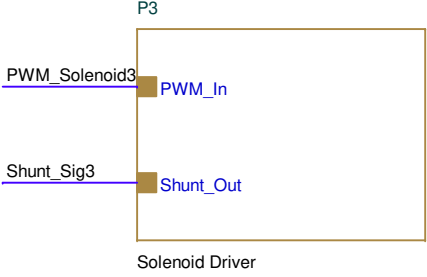
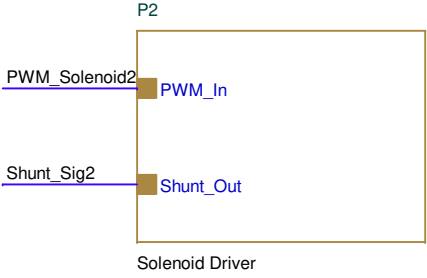
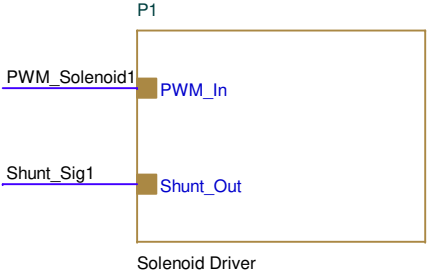
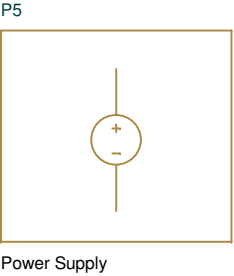
Main Control Board

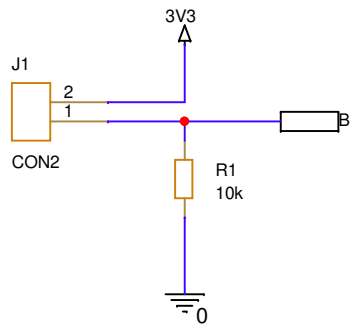
- Incorporates
- + 3 Solenoid Driver Cirucuits
 - + Current sensinc circuit for Solenoid Driver Circuit
 - + Input for two buttons
 - Temperature sensors for Solenoid Driver Circuit
 - Interface for up to 50 additional LDRs
 - Speaker
 - NeoPixel Interface




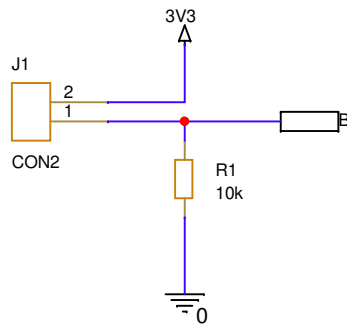
PWM_Solenoid3
PWM_Solenoid2
PWM_Solenoid1

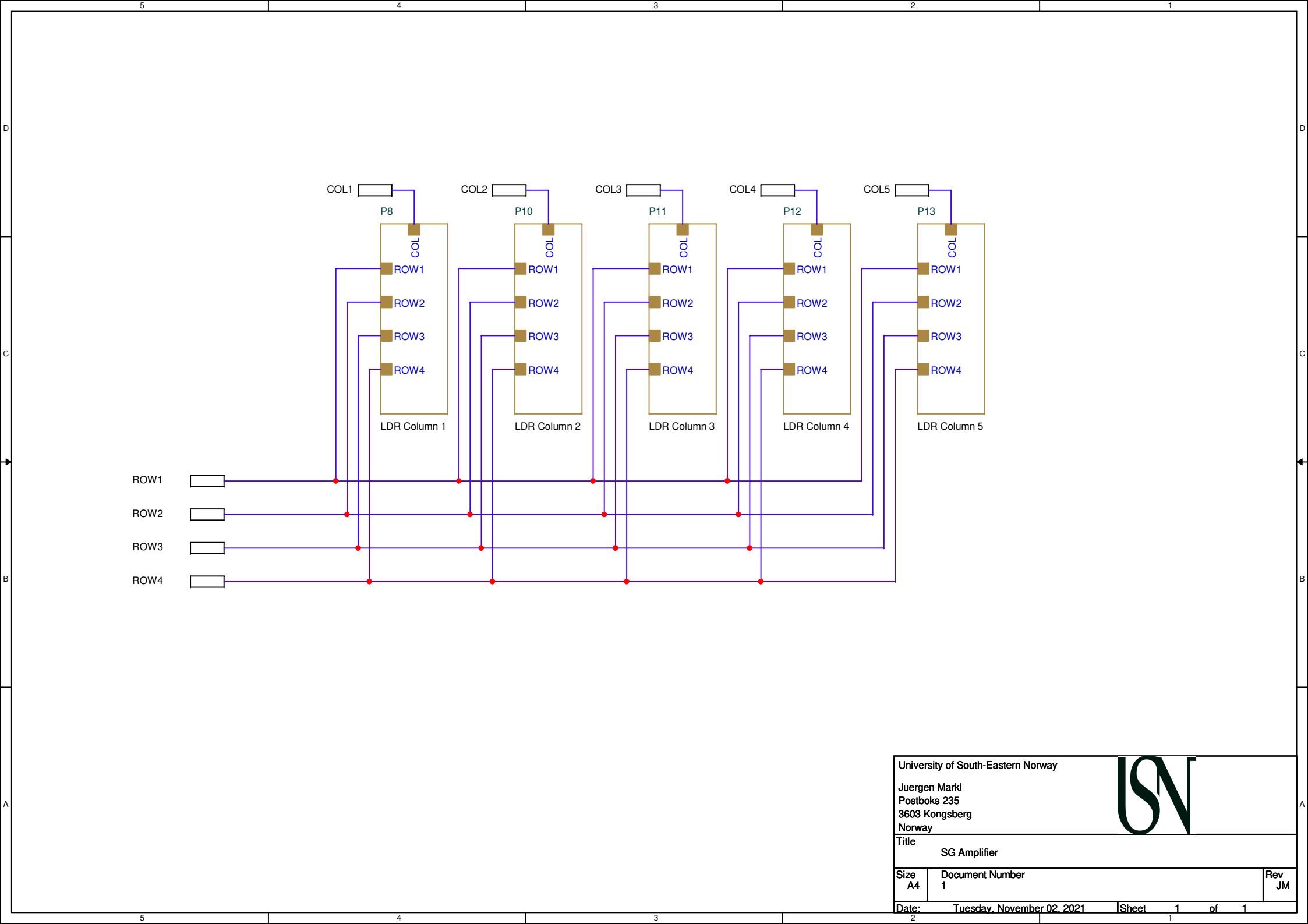
Current_Sig3
Current_Sig2
Current_Sig1

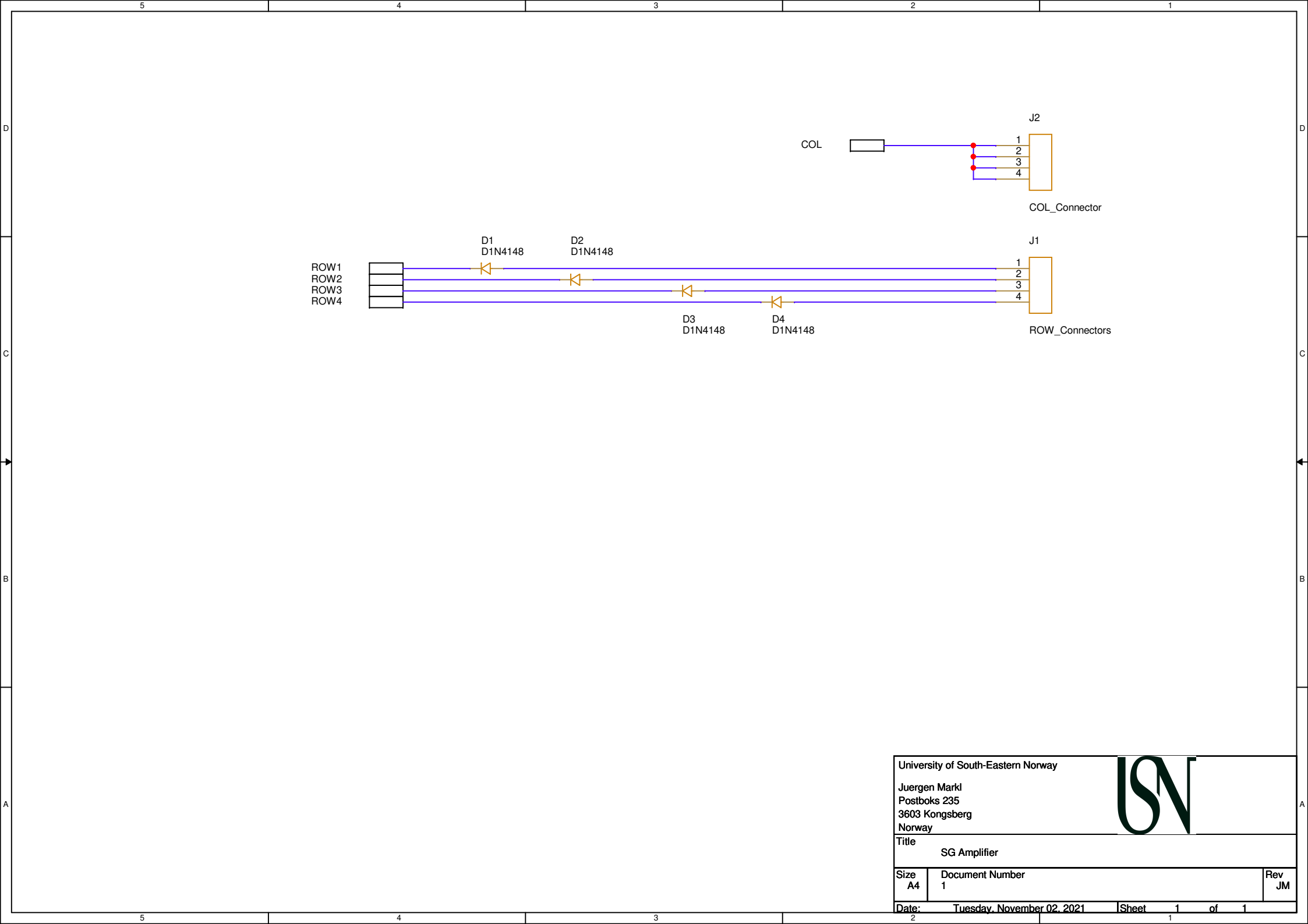


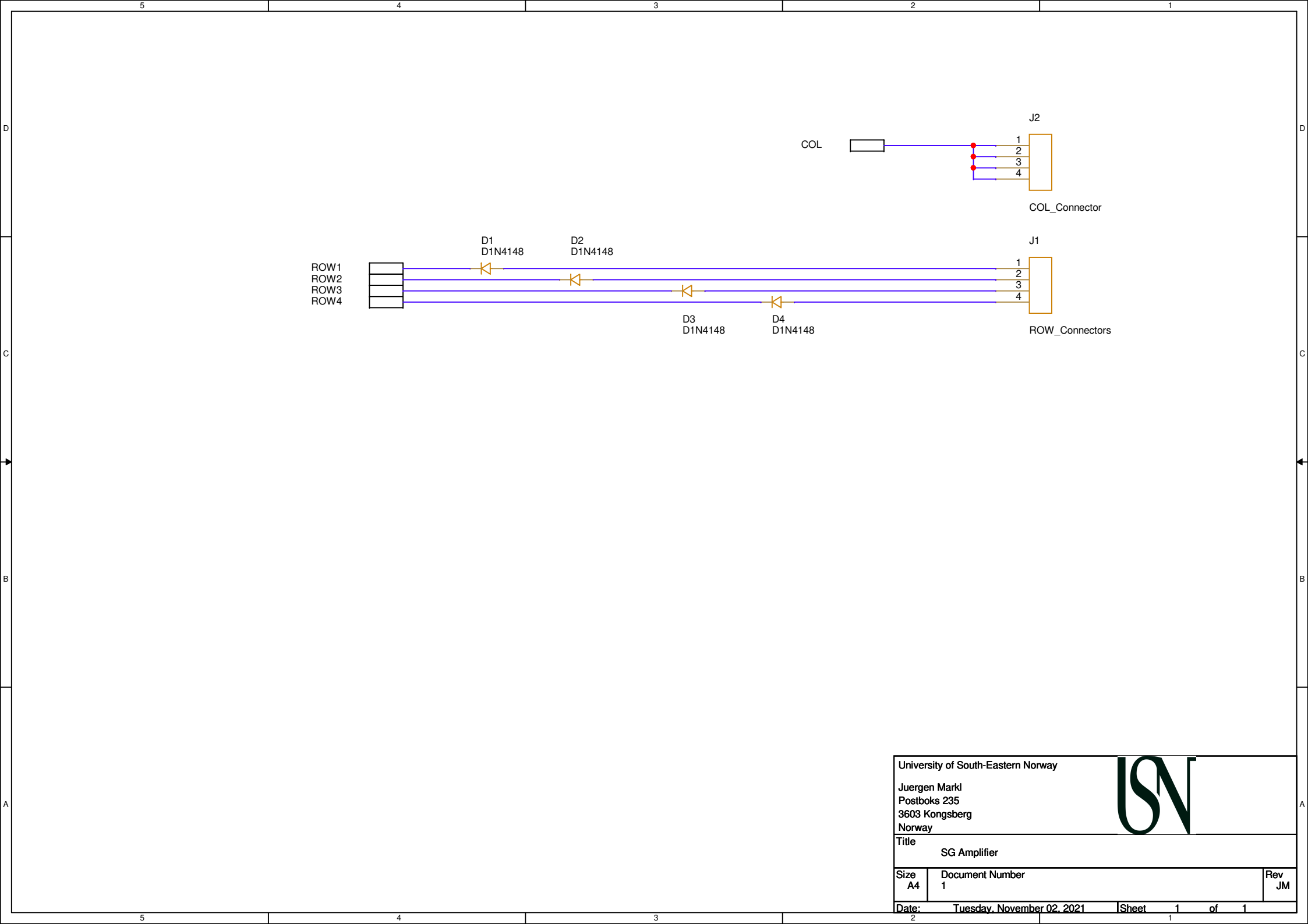


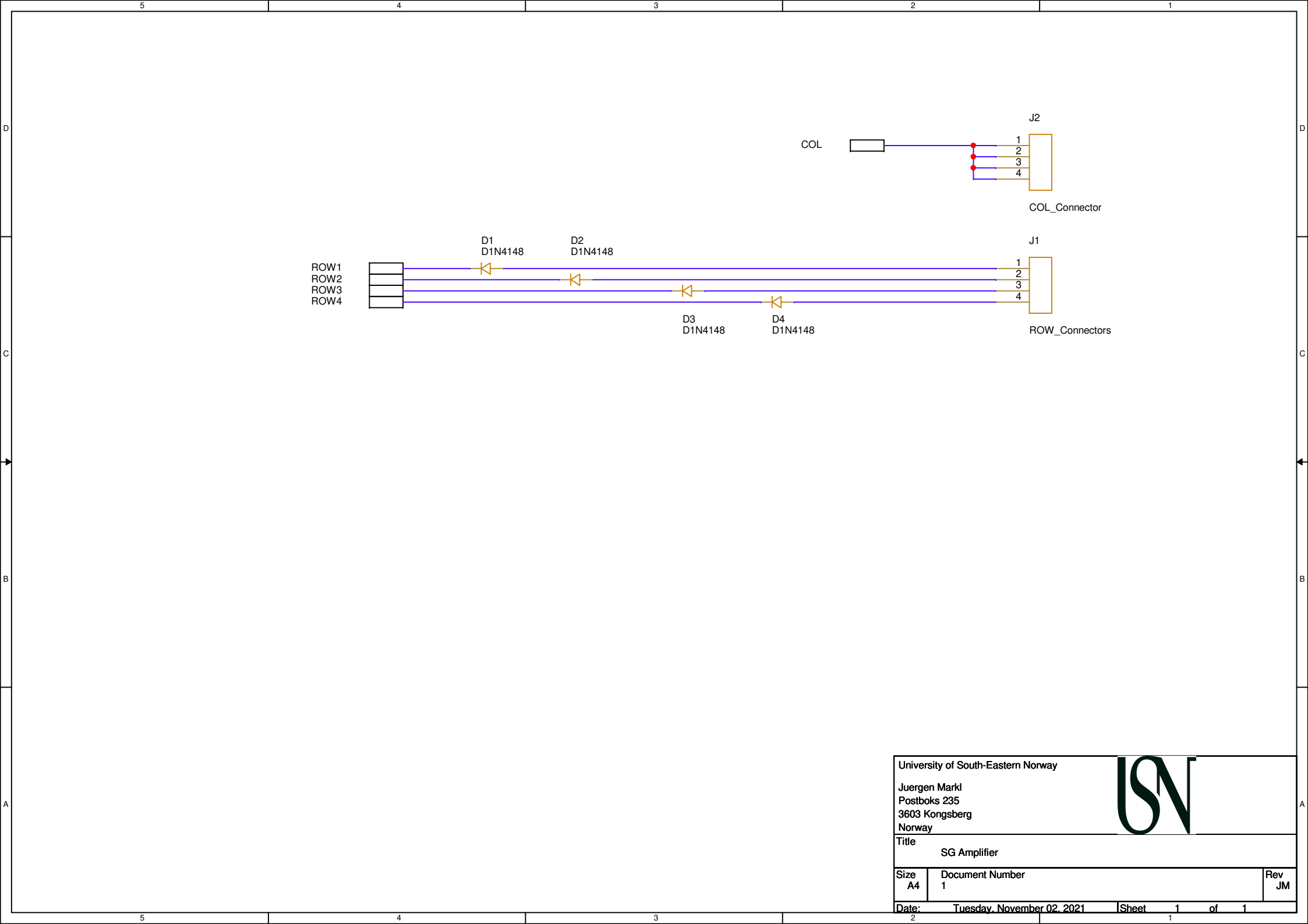
University of South-Eastern Norway		
Juergen Markl Postboks 235 3603 Kongsberg Norway		
Title		
SG Amplifier		
Size A4	Document Number 1	Rev JM
Date:	Tuesday, November 02, 2021	Sheet 1 of 1

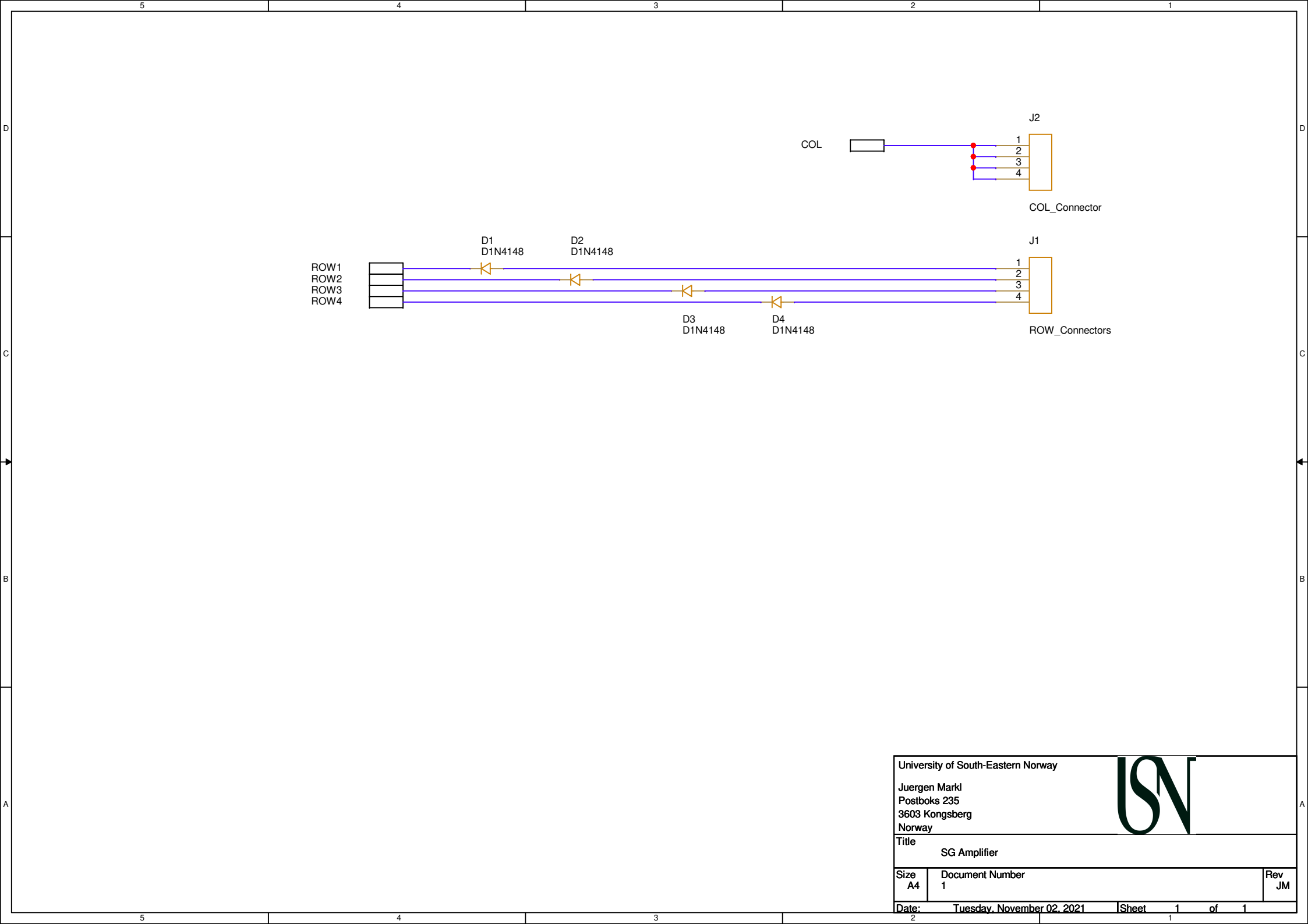


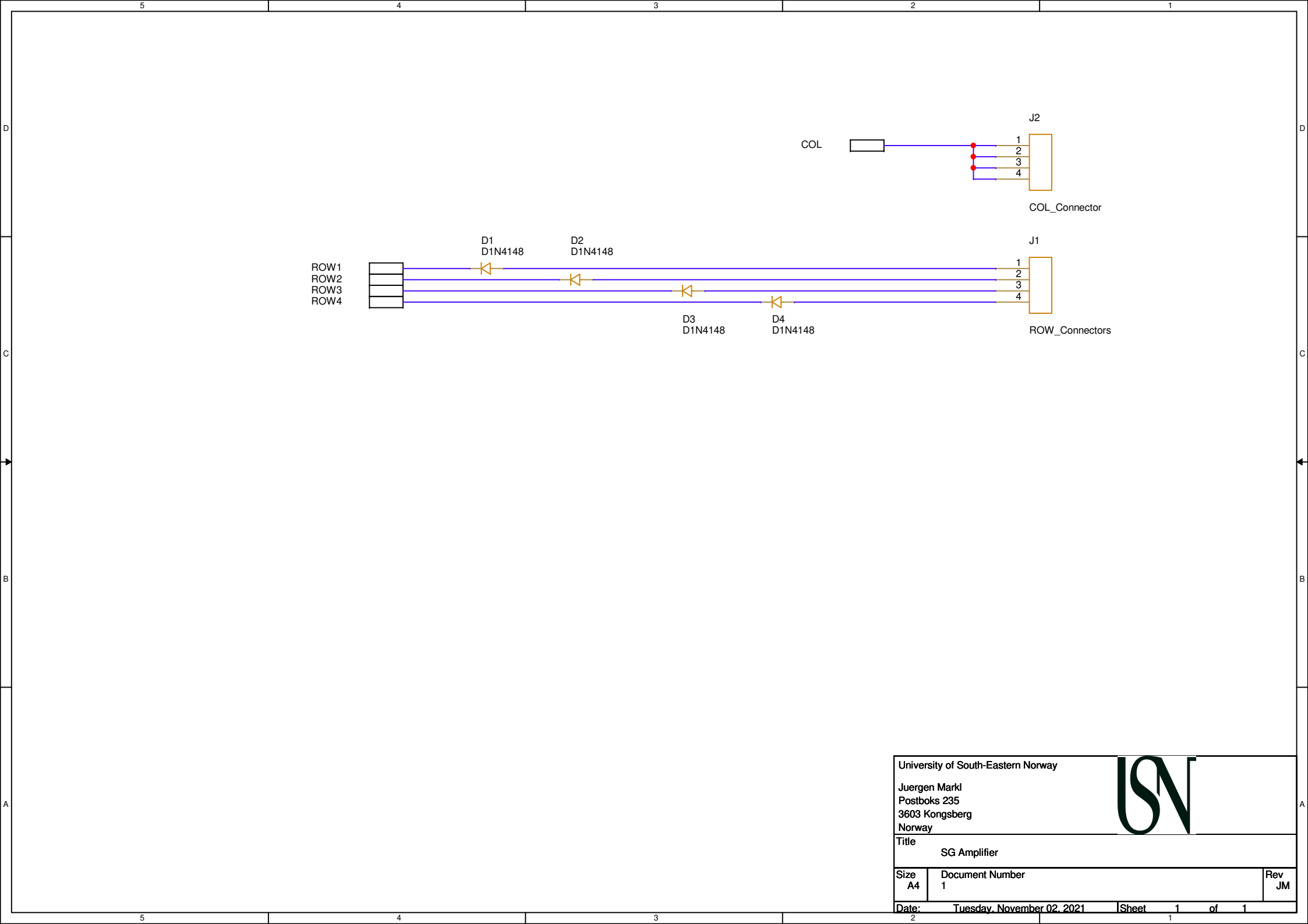


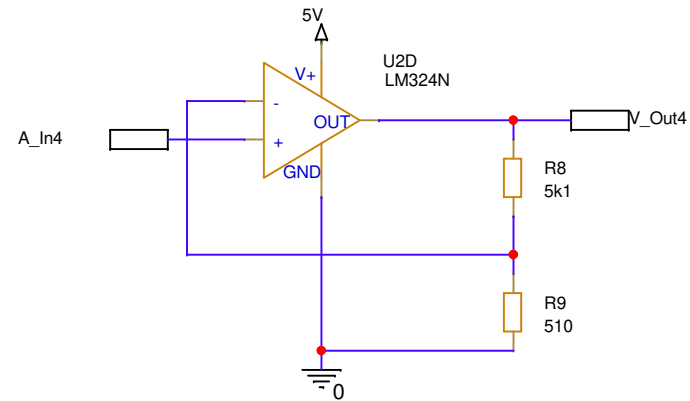
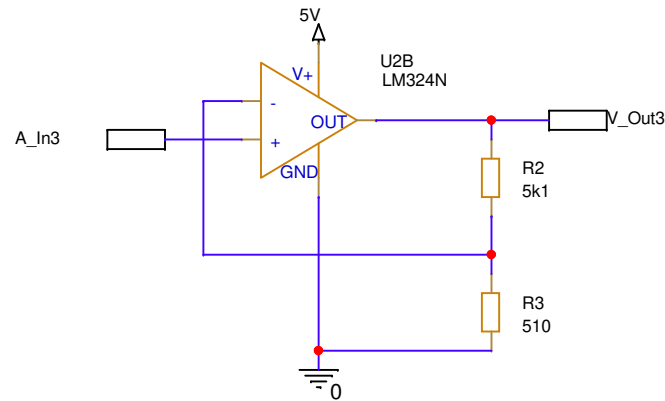
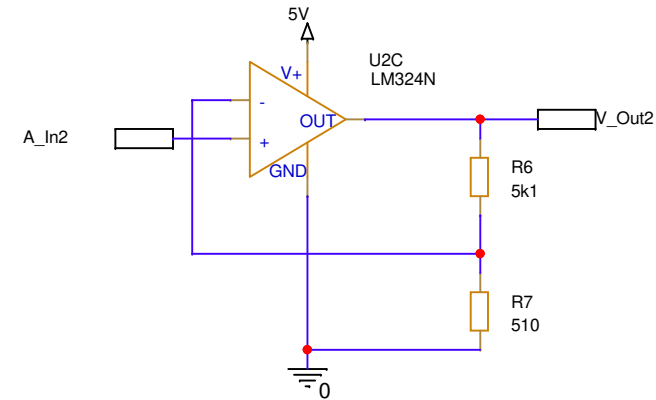
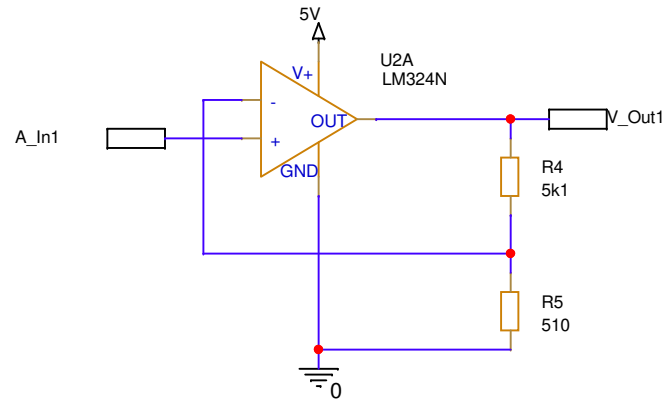












gain calculation:

at 2.5A, 0.10hm Resisotr == 0.25 V @ 2.5A

gain of 11 is desirable:

$a = 1 + R2/R1$

picking R2 = 10k

$R1 = R2 / (a - 1) = 1k$

University of South-Eastern Norway

Juergen Markl
Postboks 235
3603 Kongsberg
Norway



Title
SG Amplifier

Size
A4

Document Number
1

Rev
JM

Date: Tuesday, November 09, 2021

Sheet 2 of 6

