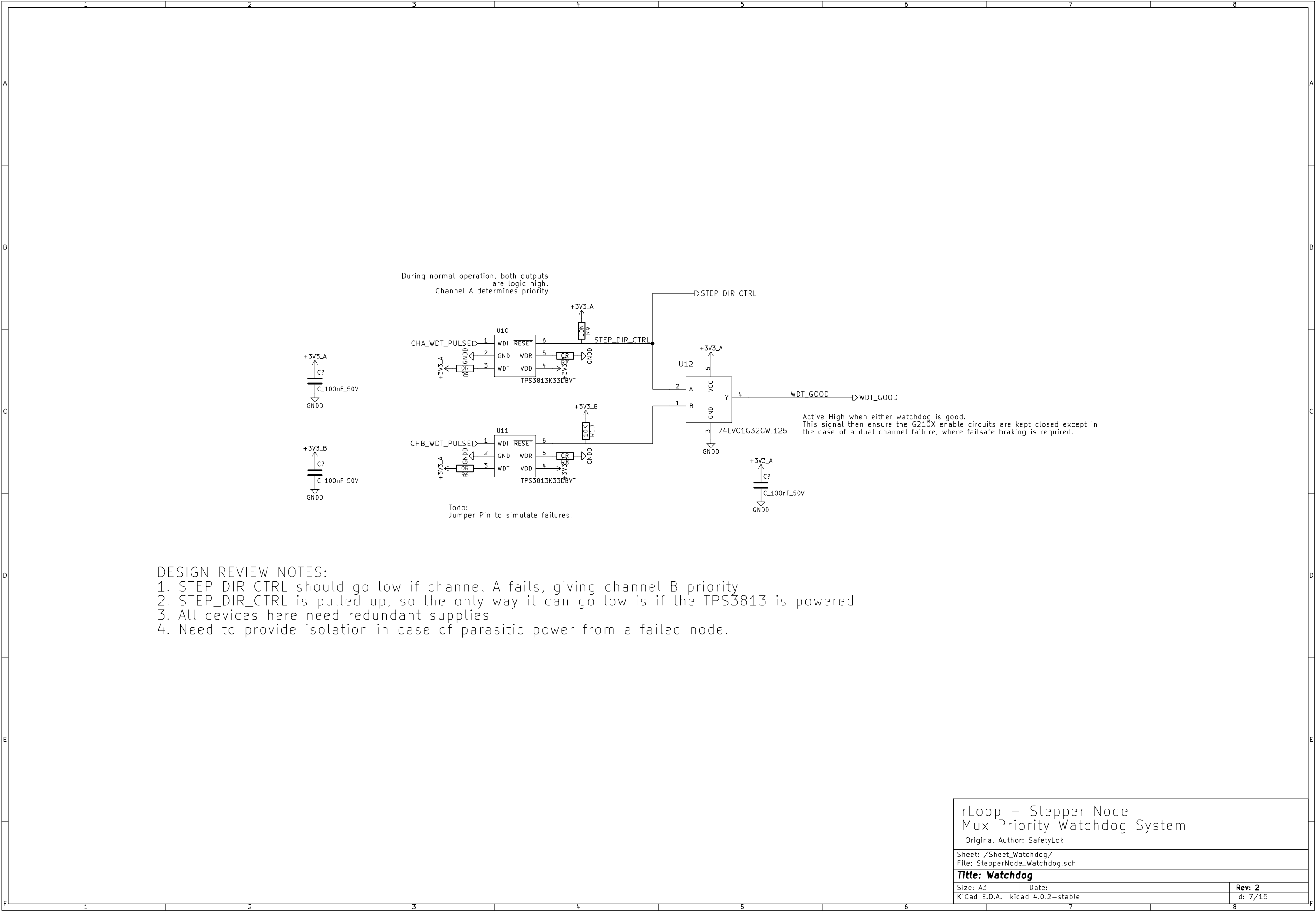
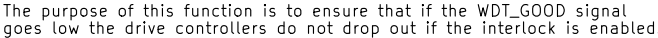


All accels must be mounted to as the +VE X-AXIS
is in the direction of pod travel.



- DESIGN REVIEW NOTES:
1. STEP_DIR_CTRL should go low if channel A fails, giving channel B priority
 2. STEP_DIR_CTRL is pulled up, so the only way it can go low is if the TPS3813 is powered
 3. All devices here need redundant supplies
 4. Need to provide isolation in case of parasitic power from a failed node.

rLoop – Stepper Node		
Mux Priority Watchdog System		
Original Author: SafetyLok		
Sheet: /Sheet_Watchdog/		
File: StepperNode_Watchdog.sch		
Title: Watchdog		
Size: A3	Date:	Rev: 2
KiCad E.D.A.	kiCad 4.0.2–stable	Id: 7/15



Todo: Power RLY from redundant source.

G210x Active when
Relay Energized

Brake 1 G210x
Enable Link

Brake 2 G210x
Enable Link

Output is high when either
Interlock is on

If WDT or any interlock is active then
The drive controllers always remain active.
In this mode a WDT fault can't cause loss of drive motors.

rLoop – Stepper Node Failsafe Brake Interface

Original Author: SafetyLok

Sheet: /Sheet_Brake_Failsafe/
File: StepperNode_Brake_Failsafe.sch

Title: Brake Failsafe Control

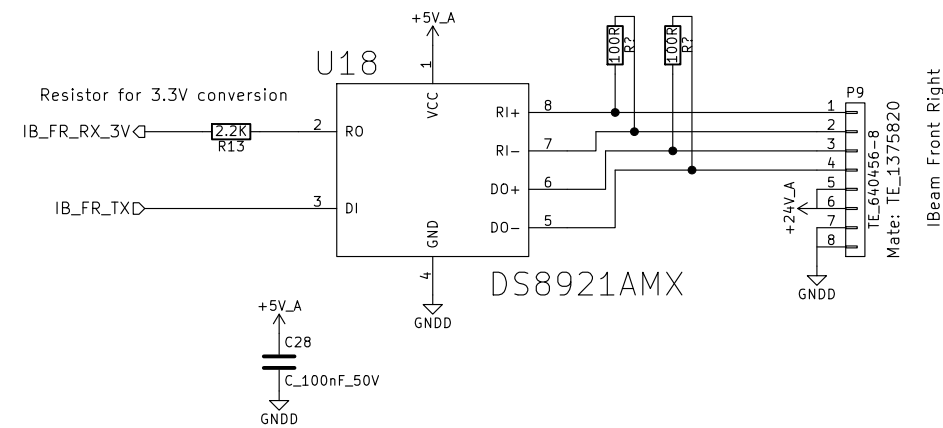
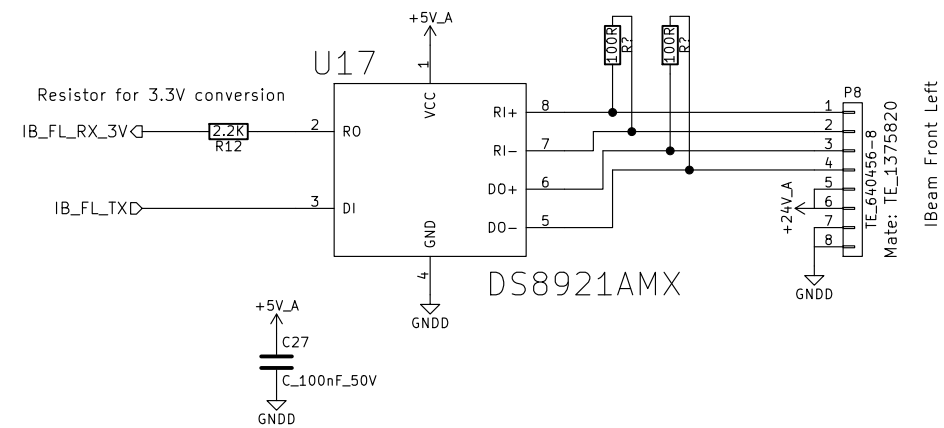
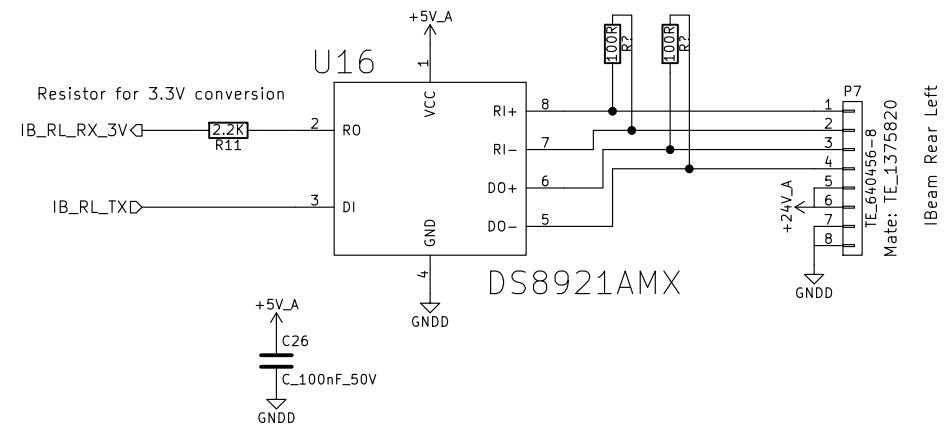
Size: A3

Date:

KiCad E.D.A. kicad 4.0.2-stable

Rev: 1

Id: 8/15



rLoop – Stepper Node I Beam Sensors

Original Author: SafetyLok

Sheet: /Sheet_IBeam_Interface/
File: StepperNode_IBeam.sch

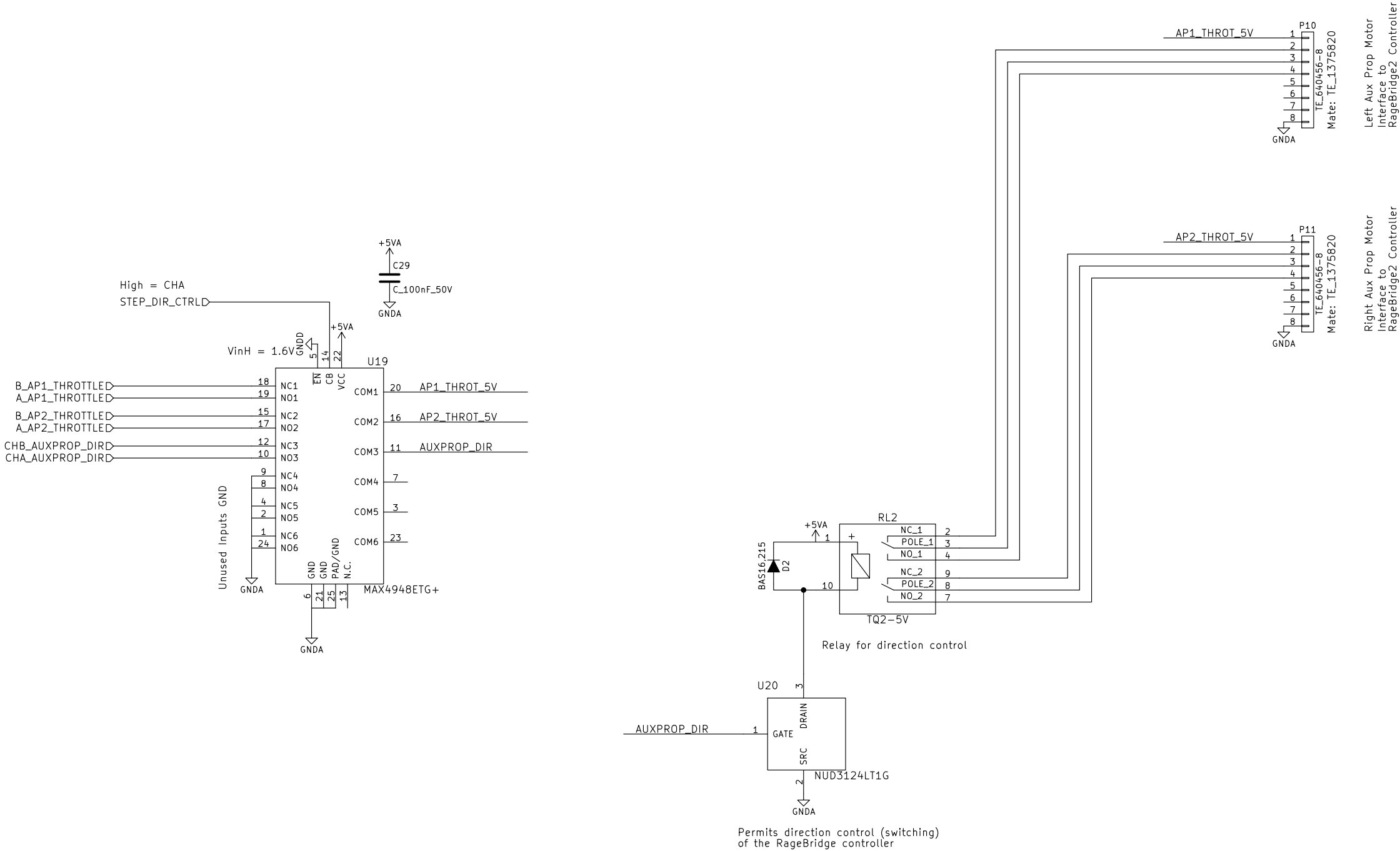
Title: I Beam Lateral (Yaw) Sensors

Size: A3
KiCad E.D.A. kicad 4.0.2–stable

Date:
Id: 9/15

Rev: 2

TODO: CHECK ELECTRICAL ISOLATION OF RAGEBRIDGE CONTROLLER



rLoop – Stepper Node Aux Prop Interface

Original Author: SafetyLok

Sheet: /Sheet_AuxProp/
File: StepperNode_AuxProp.sch

Title: *Aux Propulsion Interface*

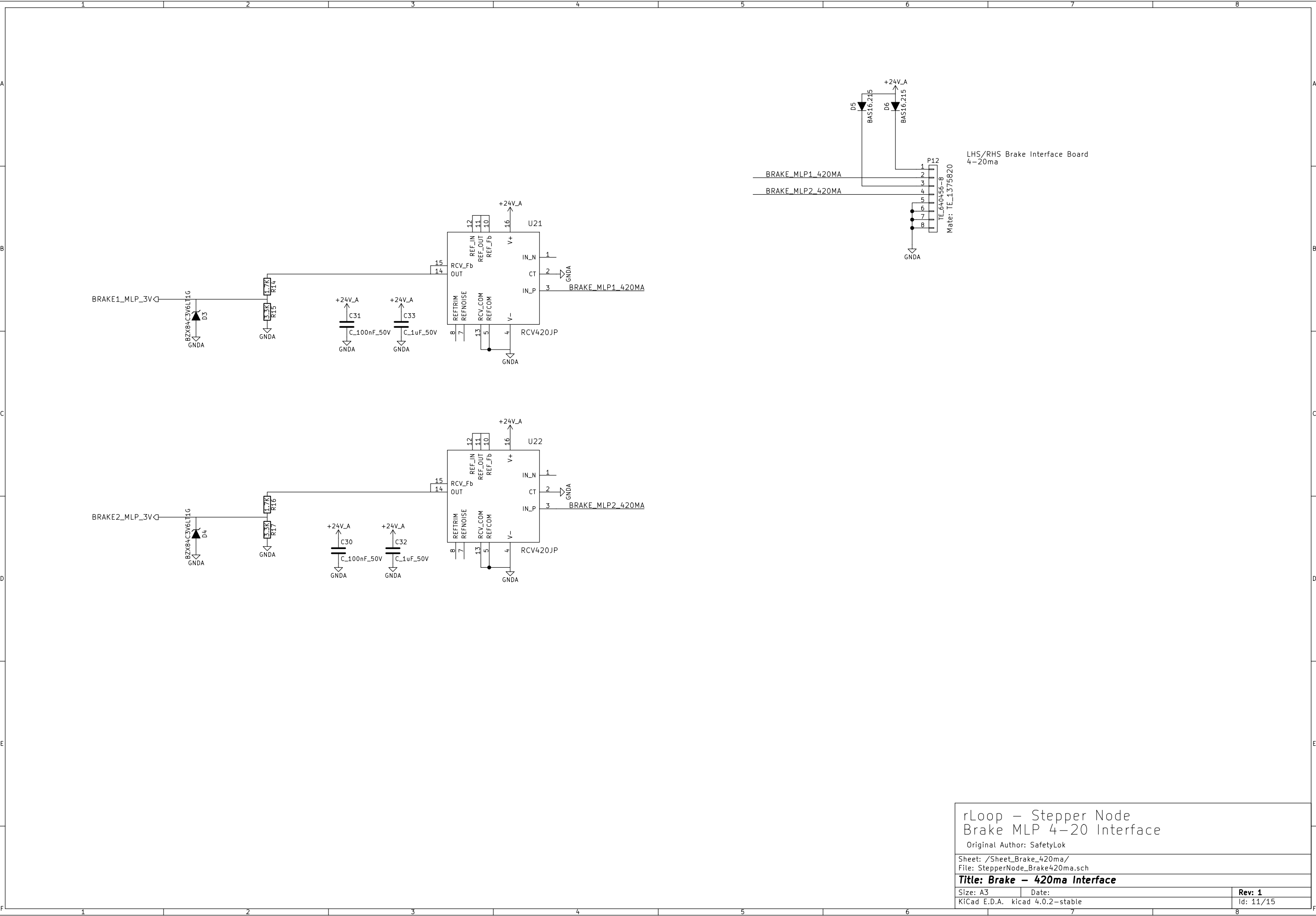
Size: A3

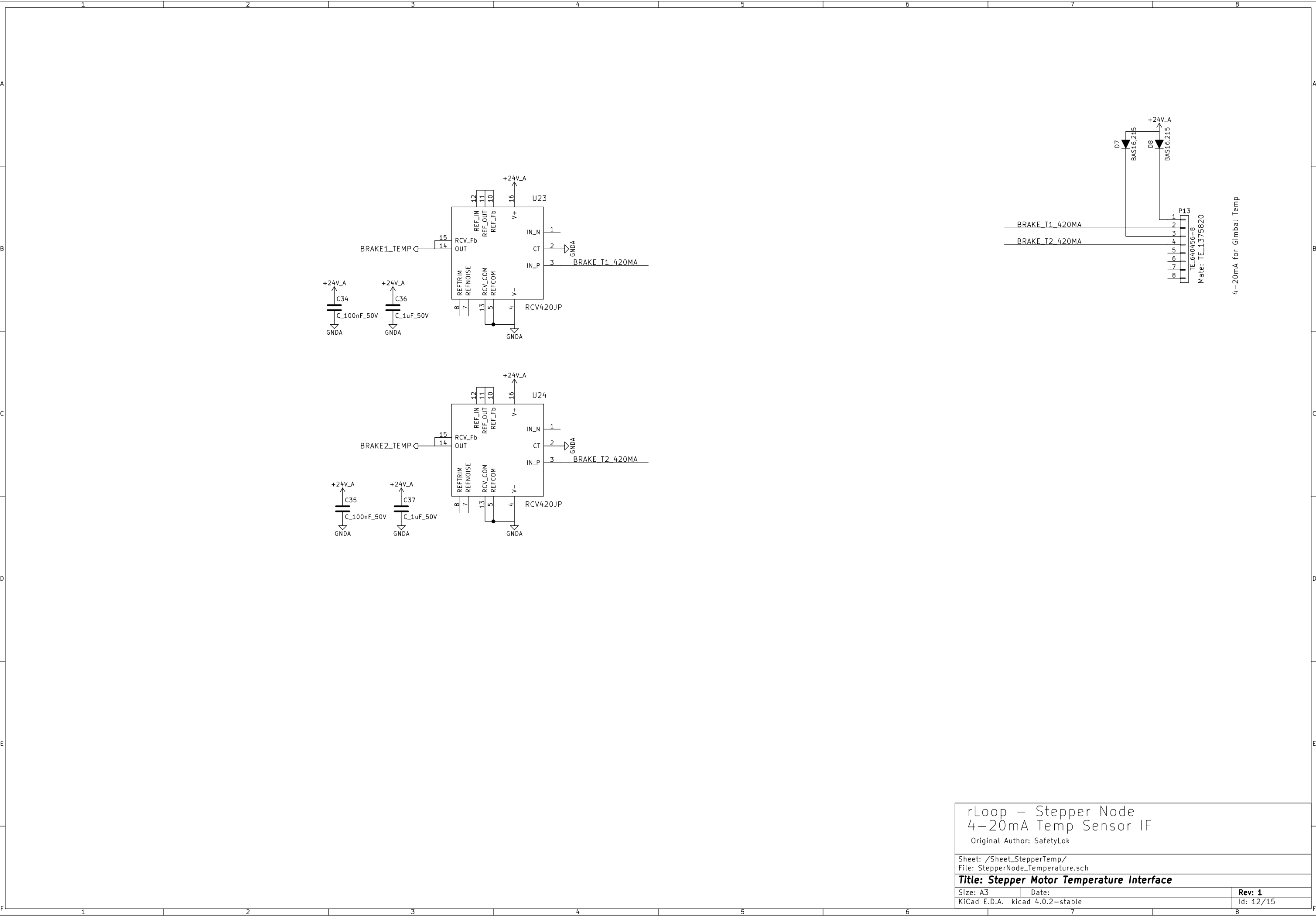
Date:

KiCad E.D.A. kicad 4.0.2-stable

Rev: 1

id: 10/15





rLoop – Stepper Node		
4-20mA Temp Sensor IF		
Original Author: SafetyLok		
Sheet: /Sheet_StepperTemp/		
File: StepperNode_Temperature.sch		
Title: Stepper Motor Temperature Interface		
Size: A3	Date:	Rev: 1
KiCad E.D.A. kicad 4.0.2-stable		Id: 12/15

