

## DSG-RICH Meeting Minutes

**Date:** April 16, 2021

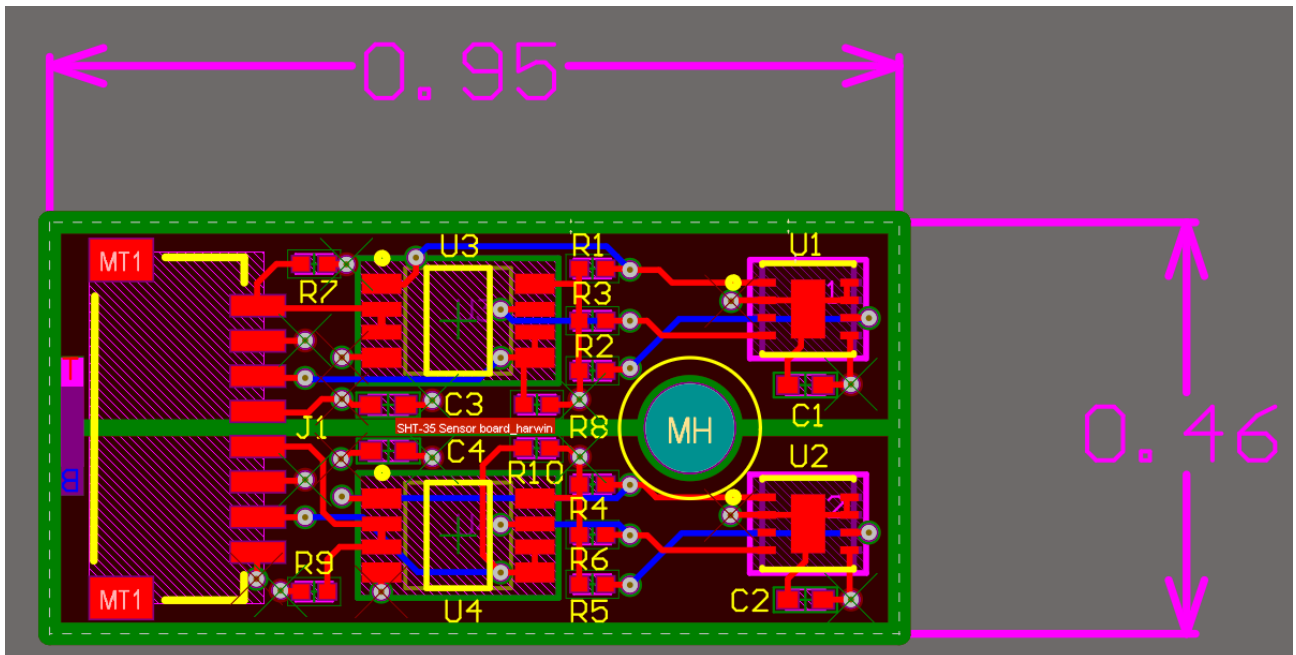
**Time:** 11:00AM – 12:00PM

*Attendees:* Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

### 1. SHT35 sensor PCB design

*Peter Bonneau, Brian Eng, Tyler Lemon, and Marc McMullen*

- Determination of pull-up resistor sizing for I<sup>2</sup>C bus in progress
  - Pull-up resistors in question are R7-R10 in design below
- Reviewed locations of vias to ensure there are no small areas of copper, or “choke points”, between vias, keepout areas, and solder pads
  - Choke points could result in unintended current flow through area of copper



### 2. Detector shell shipment

*Tyler Lemon*

- Customs billing and arrangement for delivery in progress
- Arrival expected by end of April
- Walt Akers arranging for storage space in ESB

### 3. [RICH-II LabVIEW remote interface](#)

*Pablo Campero and Tyler Lemon*

- Reviewed RICH-I's LabVIEW user interface and changes that will be made for RICH-II
  - [Talk on RICH-I LabVIEW remote interface](#)
  - Major change will be in the LabVIEW code, where messaging will be replaced with network variables

The screenshot shows the 'Expert Control Settings' tab of the LabVIEW interface. It is divided into several functional areas:

- Hardware Interlock cRIO IP Address:** Shows the IP address 129.57.160.214 and control buttons for 'Run Control' and 'Stop Control'. A status message indicates 'CONTROL MODES IS DISABLED System is Locked to Hardware Interlock Control Loop'.
- Interlocks Trip Latch Status:** Features a large 'OFF' button and a 'UI Threshold Control' button.
- Control Configuration Settings:** Contains a warning that overrides do not hold during a reboot. It includes a 'Latch All Interlocks On Trip' section with a 'Latch on Interlock Trips' button, and a 'Software Override to RICHCRIO' section with an 'OVERRIDE TO RICHCRIO DISABLED' button and an 'OVERRIDE DISABLED' button. A note at the bottom states: 'NOTE: IF CONTROLS ARE NOT WORKING, CHECK THRESHOLD CONTROL SETTING.'
- Averaging Control Table:**

Index	averaging enable	Number of Samples	Averaging Reset
0	Disable	0	OFF
1	Disable	0	Temperature 1
2	Disable	0	Temperature 2
3	Disable	0	Temperature 3
4	Disable	0	Temperature 4
5	Disable	0	Temperature 5
6	Disable	0	Temperature 6
7	Disable	0	Temperature 7
8	Disable	0	Temperature 8
9	Disable	0	Temperature 9
10	Disable	0	Temperature 10
11	Disable	0	Temperature 11
12	Disable	0	Temperature 12
13	Disable	0	Temperature 13
14	Disable	0	Temperature 14
15	Disable	0	Temperature 15
16	Disable	0	Temperature 16
17	Disable	0	Humidity 1
18	Disable	0	Humidity 2
19	Disable	0	Humidity 3
20	Disable	0	Humidity 4
21	Disable	0	Humidity 5
22	Disable	0	Humidity 6
23	Disable	0	Humidity 7
24	Disable	0	Humidity 8
25	Disable	0	Humidity 9
26	Disable	0	Humidity 10
27	Disable	0	Humidity 11
28	Disable	0	Humidity 12
29	Disable	0	Humidity 13
30	Disable	0	Humidity 14
31	Disable	0	Humidity 15
32	Disable	0	Humidity 16
- Trip Delay Control Table:**

Index	trip delay enable	trip delay times
0	Disable	0
1	Disable	0
2	Disable	0
3	Disable	0
4	Disable	0
5	Disable	0
6	Disable	0
7	Disable	0
8	Disable	0
9	Disable	0
10	Disable	0
11	Disable	0
12	Disable	0
13	Disable	0
14	Disable	0
15	Disable	0
16	Disable	0
17	Disable	0
18	Disable	0
19	Disable	0
20	Disable	0
21	Disable	0
22	Disable	0
23	Disable	0
24	Disable	0
25	Disable	0
26	Disable	0
27	Disable	0
28	Disable	0
29	Disable	0
30	Disable	0
31	Disable	0

Expert control tab of RICH-I Electronic Panel LabVIEW user interface.