

## DSG-GEM R&D Meeting Minutes

**Date: September 21, 2020**

**Time: 10:00 – 10:30**

*Attendees: Peter Bonneau, Aaron Brown, Pablo Campero, George Jacobs, Tyler Lemon, Marc McMullen, Amrit Yegneswaran*

1. Procurement for gas flow distribution prototype system
  - 1.1. Most components were delivered, except for 18 of 20 standoffs, gas distribution panels and the chassis for the prototype gas flow sensor chassis
  - 1.2. George has located the system rotameters and tubing
2. Brian printed fixture to test tube length needed in the gas flow sensor chassis; testing is ongoing
3. Tyler has found suitable boxes from Bud Industries to use for the exhaust readback equipment
  - 3.1. Tyler has started designing the modifications needed for each type of project box to be used for the systems exhaust components
  - 3.2. Marc will order enough boxes for the exhaust side of the system
4. Amrit modified the schedule
  - 4.1. The schedule focus will be to complete a prototype gas system by mid-November
  - 4.2. Marc will produce a presentation showing the necessary steps to complete an eight-channel supply prototype system
5. Marc changed the first I<sup>2</sup>C Multiplexer design
  - 5.1. Design is being reviewed by Peter and Brian
  - 5.2. After the design review is completed, Marc will send the design for manufacture
6. Marc suggested using the PA0005-MCP3008, four-channel, analog-to-digital converter to read the pressure transducer signals
  - 6.1. Another option is to use the PPT87, a pressure transducer that outputs using SPI protocol; Marc is requesting availability of this and similar sensors
7. The hall location information request will be covered during the meeting on 9/29 at 9:30