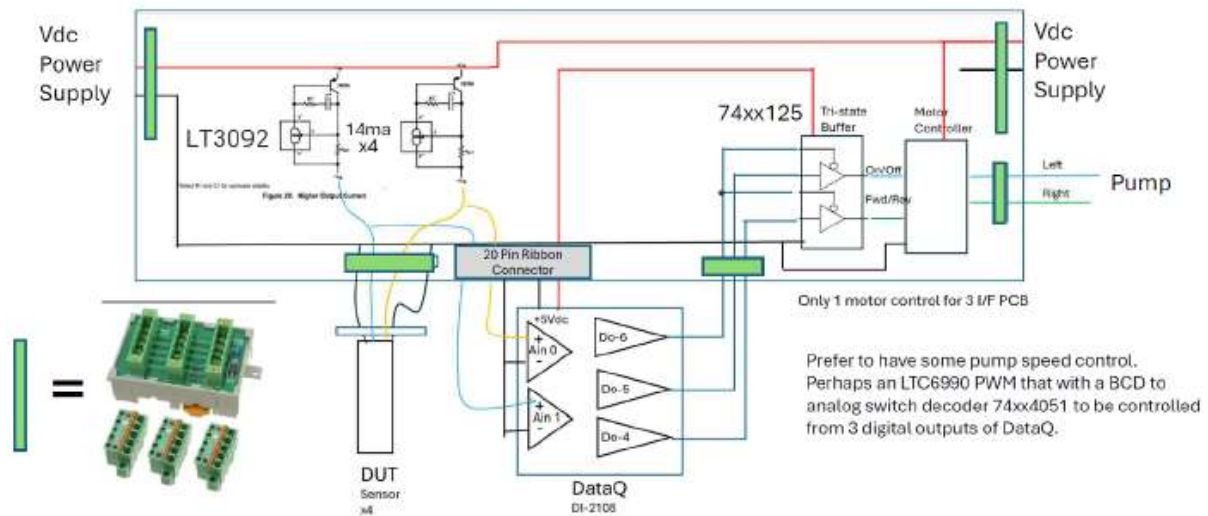
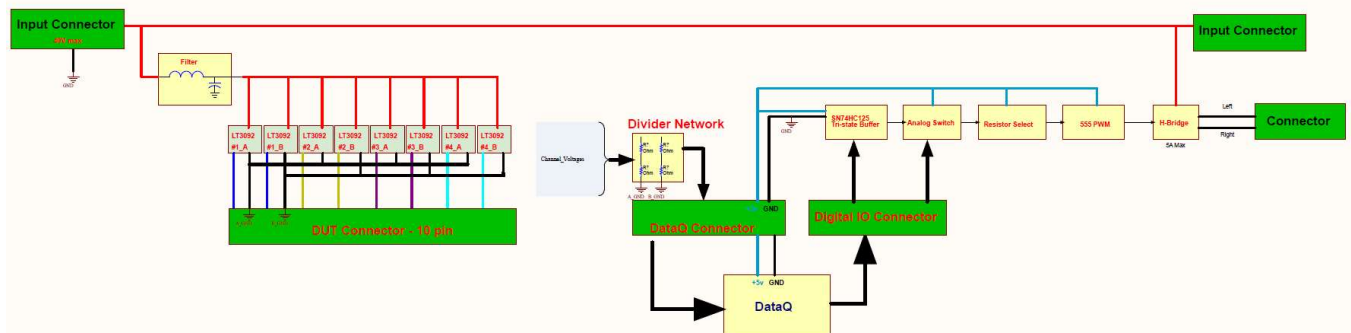


# Allen Aircraft Level Test Bench IF board Quote

## Elevate Interface PCB



## Interface Board Block Diagram



### NOTES

- Add 4 mounting holes in the corners of the board
- H-Bridge max current is 5A. Keep traces short and near output connector
- Keep 555 timer and H-Bridge close together
- Resistor Divider for each Current Source Channel
- Input Filter to the LT3092

## Notes:

- We need to check whether the 555-timer can output a 100% duty cycle signal (fully on).
- If true, one DataQ Digital IO can bypass the 555-timer and be directly fed into the H-bridge PWM pin. Make sure the signal doesn't backfeed into the 555 output. A Schottky diode would be needed.
- An analog switch to select a resistor divider that determines the duty cycle of the 555 timer can be used. It would need to be tested. A Schottky diode would be required to ensure signals would not be backfeeding or affected by dividers on the same network.
- A precision resistor divider network is needed to scale the DUT voltage to the appropriate level for the DataQ analog input.
- Rick Ales to provide the type of connectors and bill of materials.
- Rick Ales will prove the circuitry out / breadboard.

## Non-Expedited Quote:

### PCB Design

- Library Development
- Schematic Design
- PCB Layout Design
- Assembly/Fabrication Drawings

### PCB Build

- Building of the Interface board. This will be determined once the Layout and BOM is complete.

Total = \$8,215

\*Lead Time = 10 weeks.

## Expedited Quote:

Total = \$15,095

\*Lead Time = 7 weeks.

## **Typical Development Schedule:**

Library Development **1 - week**

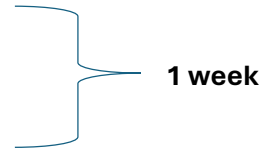
Schematic Development **2 - weeks**

Schematic Review

PCB layout Development **2 - 4 weeks**

PCB Layout Review

Fabrication, Assembly, BOM, Build Document generation



**4 – 6 weeks**

PCB Fabrication

PCB Build