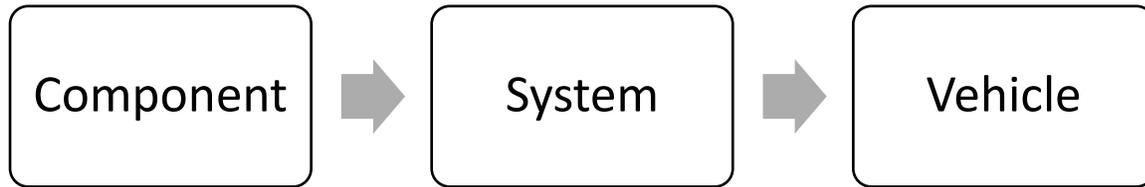


DTVC Structure

The way that we built the structure for the DTVC is a three “test gate” system.



How this works in general:

1. We each start with our respective subteam component level stuff and run through the steps listed on the next page.
2. Then take the component level and integrate all the components into your respective subteam system, and again go through the same steps.
3. Once that has all been done, we can then take all three subteam systems and integrate them all into the vehicle. This step still follows the exact same steps as before.

How to use the steps:

1. Take gate and apply metrics.
2. Come up with tests for all the material tests.
3. Come up with tests for the required spec of the gate.
4. Take all the tests you have come up with and run them through the Test Screener.
5. If a test fails then try to come up with a work around, if not possible then we have to forsake that test.

Testing Criteria

At each of the gates we ask the following questions about how to satisfy our metrics.

* All the metrics are performance metrics as well as the testing metrics*

Metric A: Efficiency-

Can you change your response for changing environment?

Metric B: Endurance-

How long (time, distance, whatever metric is pertinent) can you do what you were designed to do?

We want all of our tests to satisfy both metric A and B.

1) Material Tests

- **External and Internal** Event Tests
 - i. Humidity
 - ii. Pressure
 - iii. 0 to 100% (0 = Dry and 100% = Wet)
 - iv. Ambient temperature
 - v. Medium changes
 - vi. Durability Characteristics

2) Perform-desired-function- test

Test Screener

Meta Test Metrics

- Duration back to original state
 - How quickly can I test?
- Cost
 - Can we afford effective testing?
- Time
 - Can we begin and finish testing in a realistic amount of time?
- Location
 - Where can we test?
- Repeatability
 - Can I do it exactly the same every time?