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| **Procedure Name** | **COTS Hybrid Hot Fire 03/21/2015 – Fill and Fire** |
| **Summary** | **This document covers procedures from the beginning of the filling to the end of hot fire. Both of propulsion and electronics systems are relevant in this procedure.** |

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|  | **Name** | **Date** |
| **Created By** | **Alex Omar and Abinay Narahari** | **3/11/2015** |
| **Started By** |  |  |
| **Finished By** |  |  |

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| --- | --- |
| **Materials** | |
| **Name** | **Quantity** |
| **Test Computer** | **1** |
| **Lab Coats** |  |
| **Eye Goggles** |  |
| **Test computer** |  |
| **Wrench** |  |
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| **Participants** | |
| **Name** | **Date** |
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| **#** | **Done (initial)** | **Checked**  **(initial)** | **Directions** |
|  |  |  | **From now on, ensure that only leads and members appointed by leads can approach near the proximity of the I-beam. Everyone else must stay behind the bunker.** |
|  |  |  | **The person approaching to the I-beam must wear appropriate PPE, which includes lab coat and eye goggles. Bring propulsion tool set.** |
|  |  |  | **Leak check at lower pressure. If leak is there, go back to ??** |
|  |  |  | **Once the leak check is complete, purge the lines to empty the engine.** |
|  |  |  | **Ensure Electronics Team is ready to begin data recording.** |
|  |  |  | **Double check that everyone is at safe distance away, behind bunker.** |
|  |  |  | **Notify Electronics Team to begin data recording (whenever you think is necessary Abs)** |
|  |  |  | **Count down. Ignition.** |
|  |  |  | **Watch the spectacular show.** |
|  |  |  | **After burn completes, wait few seconds, close SV.** |
|  |  |  | **Notify Electronics Team the hotfire is complete and they may turn off data recording.** |
|  |  |  | **Wait for 1 min, and approach to nitrous K-bottles, and close it all the way.** |
|  |  |  | **Return to bunker, and purge any remaining nitrous in the system.** |
|  |  |  | **Wait for 20 min for motor to cool. Meanwhile, copy data to two flash drives. Give one to Alex, and give the other to Kai. After data is stored in multiple locations, visualize the force reading results on the test computer.** |
|  |  |  | **Determine whether the hot fire is successful or not, if possible.** |
|  |  |  | **Propulsion team and electronics team will resume their respective post-test procedures.** |
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