

MSD II Testing – Heated Seat Functionality

Team: P18347: Stroller with HVAC capability

Responsible Engineer: Team

Purpose:

The purpose of this test is to ensure that the heated seat will function properly (turning on, producing heat) in an extreme cold environment.

Engineering Requirement:

| Requirement # | Importance | Metric | Unit | Ideal Value | Marginal Value |
|---------------|------------|--|------|-------------|----------------|
| S3.b | 9 | Lowest outdoor temp. to maintain internal stroller temp. | [°F] | TBD | TBD |

Materials:

- a.) Closed stroller pod with heated seat
- b.) BME Cold Room
- c.) Thermocouples

Test Procedure:

- 1.) Place thermocouples in stroller pod
- 2.) Confirm proper start up and heat production at all settings of the heated seat prior to placing in cold room
- 3.) Turn off seat and let cool down completely
- 4.) Place stroller in cold room for 5 minutes
- 5.) Turn on heated seat
- 6.) Test heat production at different temperatures
- 7.) Measure ambient temperature of stroller pod and monitor for each different temperature setting of seat
- 8.) Remove stroller and turn off heated seat

Pass/Fail Criteria:

| Pass | Fail |
|------|------|
| | |

Completion Date: