

MSD II Testing – Ambient Temperature Testing

Team: P18347: Stroller with HVAC capability

Responsible Engineer: Team

Ambient Temperature Testing:

The purpose of this test is to determine and monitor the ambient temperature of the stroller pod with no heat generated in a cold environment.

Engineering Requirement:

Requirement #	Importance	Metric	Unit	Ideal Value	Marginal Value
S3.d	9	Thermal analysis of losses: maintain carriage temperature	[°F]	68-74	55-78

Materials:

- a.) Closed stroller pod with heat source
- b.) BME Cold Room
- c.) Thermocouples
- d.) Temperature sensor of room

Test Procedure:

- 1.) Measure ambient temperature of stroller pod in room temperature
- 2.) Set cold room temperature to as cold as possible
- 3.) Place thermocouples inside of stroller pod in various locations
- 4.) Close stroller pod, let stroller sit in cold room for 20 minutes
- 5.) Remove stroller and collect data from thermocouples
- 6.) Repeat test 3 times to ensure accuracy

Pass/Fail Criteria:

Pass	Fail
$55 \leq T \leq 78$	$T < 55, T > 78$

Completion Date: