**Spring Validation Demo Test Plan**

| **Test Title** | **4.8 Spring Validation Demo** |
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| **Objective** | To demonstrate the capability of localizing and estimating depth through perceptual degradation |
| **Elements** | System |
| **Location** | Fire Academy or NREC |
| **Equipment** | Phoenix Pro, Lidar, Smoke bombs or fog machine, Smoke masks, Eye protection gear, Laptop with Smores software stack, heaters, power supply, test-setup items |
| **Personnel** | Aayush FadiaAbhishek IyerAmy JiangRanai SrivastavSwastik Mahapatra |
| **Procedure** |
| * Setup the test environment including power supply, smoke machine, drone platform, and audience visualization aids.
	+ The test environment will be enclosed and smoke will be released until the desired environment is reached.
	+ The test environment will have heaters and other objects placed throughout the testing area
* The drone will proceed moving through the environment while mapping the environment and reporting dense depth
* The drone will circle back to where it started from
 |
| **Verification Criteria** | **Requirements Satisfied** |
| * The audience can see live (latency < 200ms)of the sensor feeds through appropriate visualizations
* Endpoint error < 5m
* Dense depth reconstruction is visually similar to true environment
 | * PR.M.1
* PR.M.2
* PR.M.3
* FR.D.2
* FR.M.1
* FR.M.2
* NR.M.2
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