**[*Insert Name of System or Sub-System*] System Requirements Specification**

**1. Scope.**

* 1. **Identification.**
  2. **Overview.**
  3. **Document overview.**

**2. Referenced documents.**

**3. Requirements.**

**3.1 Required states and modes.**

**3.2 Function and performance requirements.**

**3.2.x Obstacle Detection Range Requirement.**

**3.2.x Obstacle Detection Accuracy Requirement**

**3.2.x Data Handling Requirements**

**3.2.3 Obstacle Location Confirmation Requirements**

**3.3 External interface requirements.**

**3.3.1 Interface identification and diagrams.**

**3.3.x AVS-LS-OD-001:ODS and Location System Interface**

**3.3.x AVS-OD-NS-001: ODS and Navigation System Interface**

**3.3.x AVS-OD-OD-001 and HC-SR04 Sensor Interface**

**3.4 Safety requirements.**

**3.5 Security requirements.**

**3.6 System environment requirements.**

**3.7 System quality factors.**

**3.7.1 High Integrity C++ Version 4.0 Standards Requirements**

**3.8 Appearance and surface finishing requirements.**

**3.9 Design and construction constraints.**

* 1. *Use of a particular system architecture or requirements on the architecture, such as required use of the Arduino microcontroller.*
  2. *Use of particular design or construction standards; workmanship requirements and production techniques.*
  3. *Physical characteristics of the system (such as weight limits, dimensional limits, colour, protective coatings); interchangeability of parts; ability to be transported from one location to another; ability to be carried or set up by one, or a given number of, persons.*
  4. *Materials that can and cannot be used;*
  5. *Use of nameplates, part marking, serial and lot number marking, and other identifying markings*
  6. *Flexibility and expandability that must be provided to support anticipated areas of growth or changes in technology, threat, or mission*

**3.9.x Arduino microcontroller**

**3.9.x Battery constraints**

**3.9.x HC-SR04 Ultrasonic Sensor constraints**

**3.9.x Arduino Compatible Programming Language constraints**

**3.10- Personnel-related requirements**.

**3.11 Training-related requirements.**

**3.12 Support-related requirements.**

**3.13 Other requirements.**

**6. Notes.**

**A. Appendices.**