

# **SOFTWARE TEST REPORT**

for the

**MIT Unified Computers & Programming  
Mars Rover System Problem**

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Prepared for:

Massachusetts Institute of Technology  
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Prepared by:

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## **1. EXECUTIVE SUMMARY**

### **1.1 System Overview**

*This paragraph shall briefly state the purpose of the system and the software to which this document applies. It shall describe the general nature of the system and software; summarize the history of system development, operation, and maintenance. Take a portion of the project writeup and include it here.*

### **1.2 System Architecture & Software Components**

*This paragraph shall identify the parts of the system (i.e. hardware and software) that were either given or developed as part of the problem. Include how you created your software code (for example, how did you use your solutions to the pssets?)*

## **2. TEST ENVIRONMENT**

### **2.1 Software Items Under Test**

*This paragraph shall identify any software by name, number and version, as applicable that was tested and summarized in this report.*

### **2.2 Components in the Software Test Environment**

*This paragraph shall identify by name, number, and version, as applicable, the support software items (e.g., operating systems, compilers, communications software, related applications software, etc.) necessary to perform the testing activities on the software identified in paragraph 2.1.*

### **3. TEST RESULTS**

#### **3.1 Overall Assessment of the Software Tested**

*This paragraph shall:*

- (a) *Provide an overall assessment of the software as demonstrated by the test results in this report*
- (b) *Identify any remaining deficiencies, limitations, or constraints that were detected by the testing performed.*

#### **3.2 Detailed Test Results**

##### **3.2.1 Rover Maneuver Test(s)**

*This paragraph shall describe the tests performed and the challenges faced when checking the rover's ability to move forward, backward and turn.*

##### **3.2.2 Sensor Data Test(s)**

*This paragraph shall describe tests performed to check the rover's reading of the light sensor data.*

##### **3.2.3 Mission Data Transmit Test(s)**

*This paragraph shall describe the tests used to check that the mission data could be transmitted to "earth."*

##### **3.2.4 System Test(s)**

*Summarize what your rover did the first time you tried it on the 5x5 grid. Did you have to correct your algorithm after the first test? How did you learn from the rover's behavior?*

*How did your rover perform during the final demonstration for credit? What was its path across the grid? Include a copy of your team's output from the rover during the demo..*