

# P11216 Wandering Ambassador Mechanical Test Plans & Test Results

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## 2. MSD II WKS 2-3 TEST PLAN – “HOW, WHO, WHEN”

### 2.1. Data Collection

#### 2.1.1. Data Collection Structure

Test Number	Name	Eng Spec Number	Test Description
TM1	Range	ES1	Measure the range of the physical deterrence system
TM2	Pressure	ES2	Measure the pressure from the nozzle of the physical deterrence system
TM3	Duration	ES3	Measure the maximum operating time of the physical deterrence system
TM4	Sonar Coverage	ES14	Measure and compare the increased coverage of the sonar system
TM5	Varying plant size	ES15	Not possible due to budgetary restrictions
TM6	Additional Plants	ES29	Visual inspection of robot chassis

#### 2.1.2. Sampling Techniques

Test Number	How Measured
TM1	Use a meter stick or measuring tape to record the maximum distance the water shoots
TM2	Use a pressure sensor to measure the exit pressure
TM3	Use a stop watch to determine the time to empty the tank
TM4	Analytically compare coverage
TM5	None
TM6	Visual inspection of robot to confirm visibility of inner working

### 2.2. Test Procedure, timeline

Test Number	Person Responsible	Planned Execution
TM1	Nick/Anna	3/25/2011
TM2	Nick/Anna	3/25/2011
TM3	Nick/Anna	3/25/2011
TM4	Nick/Anna	3/18/2011
TM5	N/A	N/A
TM6	Nick/Anna	5/1/2011