

Test	Description	Point of Contact for Sy	Test Date	Pass/Fail
Weight Constraint (How do we measure it?)	The final product needs to be under 100 lbs per section	Mechanical Team		
Non-conducting enclosures for batteries	Resistanace between enclosure and a ground should be at or above 1 Megaohm	Mechanical Team		
Sleep Mode	Confirm the sleep mode has a power consumption under			
Battery Temperature test (How do we measure that)	Test the warning system for the battery temperature, it should alert if the temperature is above 60 C // thermometer (water?)	Power Team		
Wire Harness Connections	Connectors will be checked for reliable connections, connectors will be lightly tugged on to ensure wires will stay connected during use, conn	Will Oakes		
Wire Harness Connections 2	Sensor performace will be monitored after it is added to harness, test passes if sensors perform properly	Will Oakes		
270 degrees azumith	does the motor allow for an xy horizontal plane	Mechanical Team		
20-70 elevation	does the linear actuator meet these as measured with a protractor	Mechanical Team		
exterior is electrially isolated	Resistanace between exterior and a battery should be at or above 1 Megaohm	Mechanical Team		
easily portable	can it cross through the halls of acopian	Mechanical Team		
easy setup	2 people can assemble it within a 15 minutes	Mechanical Team		
Interior Secure components	Can it go down the hall without anything inside falling out of place	Mechanical Team		
WiFi Functionality	Confirm the arduino can access the internet by printing out the specifications of the selected network			
Website Control	Confirm user can alter system acitivity from a remote area	Arduino Team		
Website Data Display	The user can observe important sensor data from a remote area (battery temperature, charge controller current, etc. . .	Arduino Team		
Compass Sensor:	To test the compass sensor we will test both the accelerometer and the magnetometer functions of it. To test the magnetometer we will use a	Arduino Team		
AC Voltage Sensor Testing: (is this a bench test?)	Input a known AC voltage into the sensor and read the output from the Arduino UNO the sensor test will be considered a success if the read	Arduino Team		
DC Voltage Sensor Testing: (is this a bench test?)	Input a known DC voltage into the sensor and read the output from the Arduino UNO the sensor test will be considered a success if the read	Arduino Team		
AC Current Sensor Testing: (is this a bench test?)	Input a known AC Current into the sensor and read the output from the Arduino UNO the sensor test will be considered a success if the read	Arduino Team		
Environmental Sensor Testing:	Read the sensor to the Arduino UNO the sensor test will be considered a success if the reading is within 5 degrees of the exterior temperatu	Arduino Team		
Battery Temperature Sensor Testing:	Measure the temperature of the battery at the terminal with a previously known accurate temperature reading then compare the sensor read	Arduino Team		
Power Board Testing: (is this a bench test?)	Measure the output voltage of each connector to match the specified requirements. Run motors and observe the behavior of the board. This	Power Team	Dec 13th	
PV Sensor Testing: (is this a voltage or current test)	Measure the expected output of a PV sensor from the solar panels that we have and calibrate the PV sensors so that they are within 1% of t	Arduino Team		
I2C Testing 1:	Send known messages from one Arduino to the other. This test will be successful if the message is received at the same value that it was se	Arduino Team		
I2C Testing 2:	Send known messages from one Arduino to the other from an analog sensor. This test will be successful if the value read from the serial mo	Arduino Team		
I2C Testing 3:	Send known messages from one Arduino to the other from a digital sensor. This test will be successful if the value read from the serial monit	Arduino Team		
Data record	Compare if the data sent to the dashboard is the same as the data displayed on the arduino			
Rotation range test	Send rotate (rotation rage) command to the dc motor and linear actuator, Check if the degree changed on the compass is the same rotation command sent by the arduino			
rotation accuracy test	Send rotate (1 degree) command to the dc motor and linear actuator, Check if the degree changed on the compass is the same rotation command sent by the arduino			
STAT test	Check if the sensor data on the STAT page is the same as expected reading			
Super-Capacitor test	With a simple 12V input RC circuit, measure the charging time and discharging time as well as maximum discharge current. Test succeed if th	Power Team		
H-bridge IC test (bench test?)	Send pulse signal with Arduino to input of the IC connected to the test circuit, Check if the output volatge meet the designated performance(t	Power Team		
Audio test	Check if a person with normal hearing can hear professor Jouny saying "minus 1" from a distance of 10 yards away from speaker	Zheping		
Need tilt range and accuracy tests				
Optimal angles testing?	Manual pan and tilt variation to verify expected charging performance improvement with tracking			