

# Transcript for the Testing Switches Video

First thing to do when testing the robots switches is to park the instrument from the main screen press scenario increment, the red button to park, then press go in a proper park procedure, the robot will move back and forth in the azimuth and zenith direction a few times and then come to a stop.

Here you can see that the robot arm continues to spin endlessly which usually suggest a problem with one or more of the switches. In this case, the zenith, if you suspect a problem you'll need to first put it into diagnostic mode to test it in the normal mode under scenario you can see that there are 0's along the top here, this is the standard operating mode to put it into diagnostic mode it's a little bit tricky, you need to press password, increment this is three, 1, 2, 3. Then press word, not password, MON, RAM, MOD and increment the ECR to 2, so you can see the 2 now has been selected. Now you push the green button to return 3 times and then you are ready to go and now when you do scenario now you can see you have a new string of numbers along the top.

So what do these numbers represent? There are 4 numbers along the top in two groups on the left is the H horizontal to the azimuth motor that controls the left right motion of the robot and on the right the V vertical is the zenith which controls the up and down motion for each the number on the right is supposed to be between 70 and 100 and these values represent the detection limits of the switch which we will show you in a moment. The number on the left in each case should be ideally 30 units above the value on the right so you can see the 69 here is too low it's less than 70 and also the 115 is more than 40 units above the one on the right. Now as I said it should be 30 greater it can range from 20-40 and for the zenith motor the situation is exactly the same the numbers have the same meaning and in this case you can see the number on the right 127 is too high so that suggests that this switch for the zenith motor also needs to be adjusted.

**Please record the H and V values from the test and send them to your NASA contact.**

The only thing left to do is switch it back from diagnostic mode to standard mode which is the same set of commands you used before. Password increment 23 word MOD RAM MOD and now reduce to 2 to 0 by pressing yellow twice now you see its 0 and hit return of the green button 3 times now you should be in standard mode if you press scenario you will see the normal 0 values.

Video demonstrated by Alex Tran (SSAI)

Video produced and narrated by Joel Schafer (SSAI)

Video transcribed by Amy Scully (SSAI)