

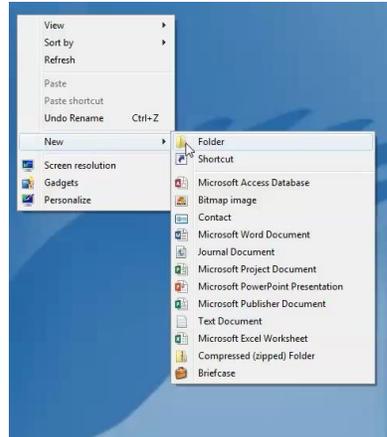
Comms Lab Data Export Guide

Aerial Robotics Virtual Lab

PROCEDURE

STEP 1

First, create a folder on your desktop called "ARVL Tests"



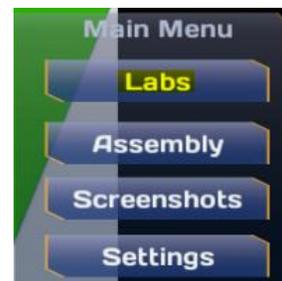
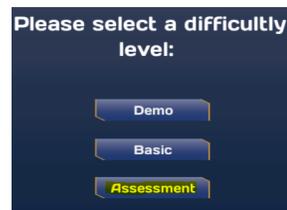
STEP 2

Then, launch the Aerial Robotics Virtual Lab application by double-clicking on the desktop shortcut.



STEP 3

Select "Assessment", then select "Labs" from the main menu.



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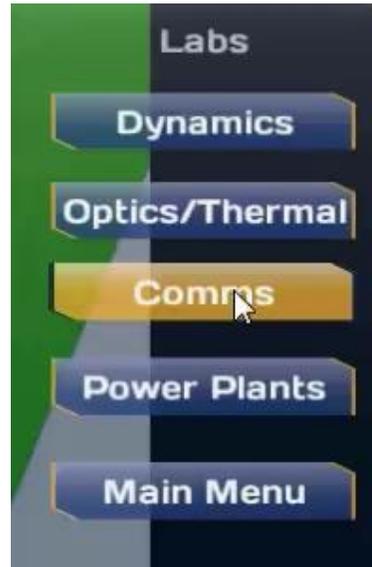
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STEP 4

Select "Comms" from the Labs menu.



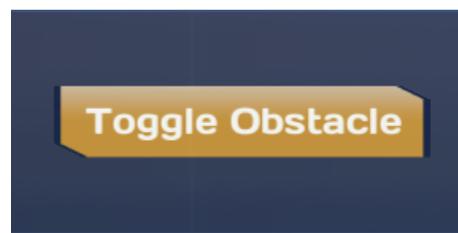
STEP 5

Select the communications device as "Dish" or "Dipole"



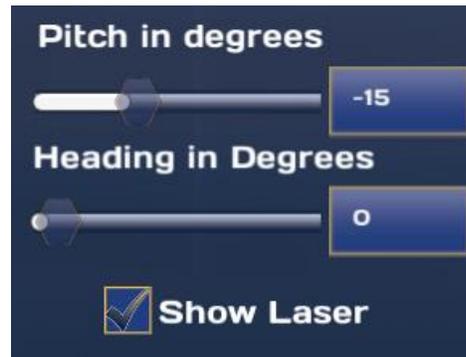
STEP 6

If required, press the "Toggle Obstacle" button to place an obstacle between the sender and the receiver. Press the button repeatedly to toggle selection between 'none', 'brick wall', and 'trees'



STEP 7

Set pitch and heading to required levels using the slider or the text box. For a dish antenna, you may additionally click on the "Show Laser" check box to show or hide the pointer laser.



Pitch in degrees: -15

Heading in Degrees: 0

Show Laser

STEP 8

Use the adjustment sliders or the adjacent text boxes to set the distance between the sender and the receiver, and the sender power to required levels.



Distance in Feet: 20

Power in Watts: 0.5

STEP 9

Observe the received signal strength (RSSI) in dBm and verify the values with your calculations (if any).



Received Signal Strength

dBm

-16.2

STEP 10

After your experiment, click on the export button to export the settings and results. The exported file will be in .csv format.



Export



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STEP 11

Select the folder where you want to save. Give an appropriate name to the file and click “Save”

