

2009

AGN Camera Calibration Guide



AeroGeoNautics

Outlander UAS™
UNMANNED AERIAL SYSTEMS

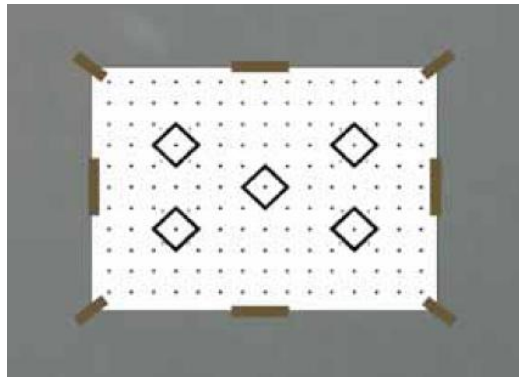
Aerogeonautics Inc.

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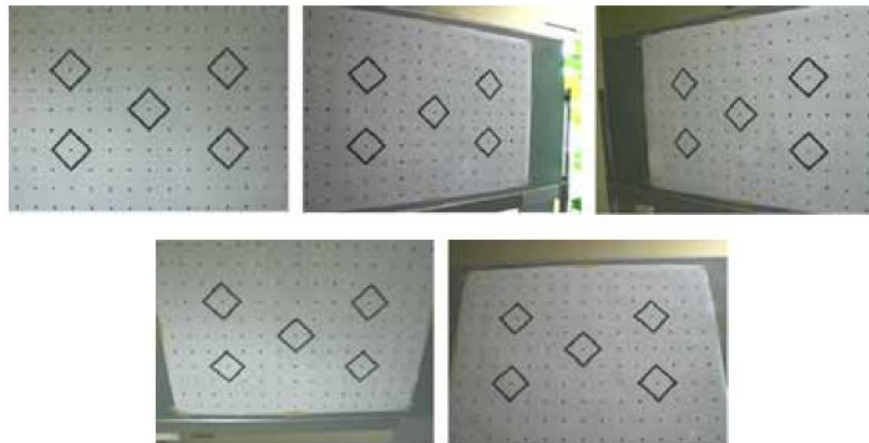
AeroGeoNautics Camera Calibration Instructions

Print out the AGN_CalibrationTarget.pdf sheet. Do not change any of the scaling (keep at 100%). For optimal results, print out the calibration sheet as large as possible without distorting it. In most cases, 8.5"x11" will be adequate.

Find a flat wall and tape the sheet to it, being careful not to get any wrinkles or waves in the paper. The placement should allow you to move 4 to 5 feet in all directions around it, including above and below. The average 8' ceiling height will give you enough room.



You will take 2 pictures at each of the 5 angles described below of the calibration sheet making sure to fill the sheet in the frame: 1. Direct centre, 2. Left side, 3. Right side, 4. Direct above, 5 Direct below. See examples below.



Send the 10 calibration images to AeroGeoNautics along with your flight data and aerial images for processing.

TIPS

- The use of a tripod will get best results but isn't mandatory. If taking images by hand, keep camera steady.
- Images shouldn't be too dark or washed out. Check each image before sending.
- Processing results performed by AeroGeoNautics are best performed when a calibration is executed before each flight. When shooting each target, it is important to use the same settings as you would in your UAV flight.
- Processing results can be improved using a larger target. An ideal target size is one where the sheet covers the frame from a distance of 10' away.
- The ideal target would be one that is printed directly onto a hardboard material, with no distortions or bending.

