Aerial Mapping and Modeling with DroneDeploy Workshop

Elevate your career in aerial mapping and modeling. Develop the skills you need to effectively gather, analyze and export mapping data.

PREREQUISITES

**5+ Hours of Flight Time**
Not flying drones yet? Check out our drone pilot training courses at dartdrones.com.

**Part 107 Certificate**
Not FAA Certified to Fly Commercially yet? Check out our in-person or online Part 107 Test Prep courses.

WORKSHOP SCHEDULE

**DAY 1**

**Data Collection**

- Lesson 1: Intro to Mapping & Modeling
- Lesson 2: Aerial Photogrammetry
- Lesson 3: Getting Started with DroneDeploy

**FLIGHT SESSION 1:**
Collecting 2D Map Data

- Lesson 4: 3D Modeling
- Lesson 5: Using the Map Engine

**FLIGHT SESSION 2:**
Collecting 3D Modeling Data

**DAY 2**

**Data Analysis and Accuracy**

- Lesson 6: Analyzing Your Data
- Lesson 7: Map Accuracy
- Lesson 8: Ground Control Points

**FLIGHT SESSION 3:**
Using Ground Control Points

- Lesson 9: Exporting Your Data
- Lesson 10: The DroneDeploy App Market

AERIAL MAPPING & MODELING WORKSHOP CURRICULUM

**LESSON 1**
Introduction to Mapping & Modeling
- Types of Mapping Data
- Types of Mapping Products
- Platform and Payload Considerations
- Mapping for Construction Mapping for Agricultural Uses
- Mapping for Engineering and Architecture

**LESSON 2**
Aerial Photogrammetry
- Principles of Photogrammetry
- Photogrammetric Geometry
- Aerial Triangulation
- Photogrammetric Procedures
- Common Coverage Errors
- Georeferencing
- Spatial Reference Systems

**LESSON 3**
Getting Started with DroneDeploy
- DroneDeploy Account Levels
- Autonomous Flight Planning
- Waypoints
- Collecting Nadir Imagery for 2D Mapping

**LESSON 4**
3D Modeling
- Collecting Oblique Imagery for 3D Modeling
- Orbit at End of Mission
- DJI Point of Interest
- Manual Collection

**LESSON 5**
Using the Map Engine
- Map Engine Processing Options
- Map Engine Data Requirements
- Uploading Datasets
- Accessing the Final Product
- Common Issues in Low Quality Maps

**LESSON 6**
Analyzing Your Data
- Layers of a DroneDeploy Map
- Analyzing Evaluation Data
- Performing Volumetric Calculations
- Cut, Fill, and Volumetric Measurement Calculation
- Lowest Point and Best Fit Base Planes
- Adjusting Histogram to Change Elevation Values

**LESSON 7**
Map Accuracy
- Relative vs. Absolute Accuracy
- Project Accuracy Requirements
- Survey-Grade Accuracy
- DroneDeploy Accuracy Levels
- Factors that Improve Map Accuracy
- Techniques to Improve Map Accuracy

**LESSON 8**
Using Ground Control Points
- Creating GCPs
- Placing GCPs
- Utilizing the GCP Checklist
- Submitting GCPs in DroneDeploy

**LESSON 9**
Exporting Your Data
- Export Options in DroneDeploy
- Static Layer Export Procedures
- Custom Layer Export Procedures
- Sharing Your Map

**LESSON 10**
The DroneDeploy App Market

Contact Us Today | 800-264-3907 | info@dartdrones.com