

TERN Mapping Mission Settings

RGB + Multispec mission settings 📖

- *Basic settings*
 - **Name:** YYYYMMDD_PlotName_Sensor
 - **Camera -> Zenmuse P1 -> 35 mm**
 - **Safe takeoff alt:** Default
 - **Terrain follow:** Disable
 - **ASL/ALT:** Relative to Takeoff Point (ALT)
 - **Flight route altitude:** 80 m
 - **Target Surface to Takeoff Point:**
 - if Canopy less than 10 m -> 0
 - 10 to 15 m -> 10
 - 15 to 30 m -> 15
 - if > 30 m -> 30 and Flight route altitude to 110 m
 - **Take-off speed:** 15 m/s
 - **Speed:** 8 to 9 m/sec: Adjust 1 sec lower than the max speed possible
 - **Elevation optimisation:** Enable
 - **Return-to-Home:**
 - Document settings and conditions
- *Advanced settings*
 - **Side Overlap:** 80 %
 - **Frontal Overlap:** 80 %
 - **Course angle:** 0 (N-S)
 - **Margin:** 50 m (can be reduced)
 - **Photo mode:** Timed interval shot
- *Payload settings*
 - **Focus mode:** First Waypoint Autofocus
 - **Dewarping:** Disabled

P1 settings 📖

⚠ Caution

SD empty or format required?

- **Mode:** M
- **ISO:** Auto
- **Shutter speed:** 1/1000 s
- **Aperture:** f/5.6
- **EV:** 0
- **White Bal:** Check sky code table
 - Sunny (0 - 6)
 - Overcast (7 - 8)
- **Img ratio:** 3:2
- **Img format:** .JPG

MicaSense settings 📖

💡 Tip

192.168.10.254

⚠ Caution

SDs empty or require formatting?

- Check DLS & GPS status
- **Capture-Mode:** Timer
- **Timer period:** 1 sec
- **Target Alt:** 80 m
- **Alt tolerance:** 20 m
- **Manual Exposure:** Disabled
- Press **Save**
- Acquire images of Calibration Panel

LiDAR mission settings

Caution

SD empty or format required?

- *Basic settings*
 - **Name:** YYYYMMDD_PlotName_Sensor
 - **Camera -> Zenmuse L1 or L2 -> LiDAR mapping**
 - **IMU calibration:** Enable
 - **Safe Take-Off Altitude:** Default
 - **Terrain Follow:** Disable
 - **ASL/ALT:** Relative to takeoff point (ALT)
 - **Flight Route Altitude:** 50 m
 - **Target Surface to Takeoff Point:**
 - 0 when takeoff when takeoff at same elevation as the site.
 - Set this to the height of representative crowns in the plot.
 - **Takeoff Speed:** 15 m/s
 - **Speed:** 5 m/s
 - **Elevation Optimization:** Disabled
- *Advanced Settings*
 - **Side Overlap (LiDAR):** 50 %
 - **Side Overlap (Visible):** Default
 - **Forward Overlap (Visible):** Default, reduce if it slows down flight speed below 5 m/s
 - **Course Angle:** 0 (North-South)
 - **Margin:** 50 m, can be reduced if necessary.
 - **Photo mode:** Timed Interval Shot
- *Payload settings L1 or L2*
 - **Return Mode:**
 - L1: Triple
 - L2: Penta-Return
 - **Sampling Rate:**
 - L1: 160 KHz
 - L2: 240 KHz
 - **Scanning Mode:** Repetitive
 - **RGB Coloring:** Enable
- *RGB Camera settings in L1 View*
 - **S** - Shutter priority
 - **Shutter speed:** 1/1000 s
 - **Aperture and ISO:** Auto
 - **White Balance:**
 - Sunny: Sky code 0 to 6
 - Cloudy: Sky code 7 to 8
 - **Image ratio:** 3:2, **IMG format:** jpeg
 - **Mechanical shutter:** Enabled
 - **Dewarping:** Enabled