

ROTATING MIRROR DOES THE WORK FOR YOU CAN'T BE WRONG



New & Improved Turn-key Solution.

Hadland / MSI miniFF (mini Flight Follower)

Our compact, computer-controlled imaging solution for following speeding projectiles.

Experience the Invisible.™

Contact us for more information or to schedule a demo today.

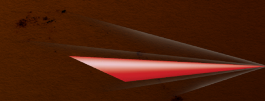
HADLAND
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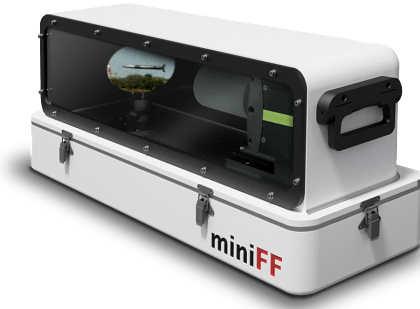


MS Instruments

For more information

Call **1-888-43HADLAND** (1-888-434-2352) or email,
sales@hadlandimaging.com about ultra high-speed imaging solutions.

MS Instruments offers complete ballistic range solutions, including optical & acoustic targets, triggers, velocity screens and more: www.msinstruments.co.uk



Our miniFF system includes:

- new miniFF enclosure
- high-speed video camera
- assorted lenses
- tablet & laptop controller
- control software
- mirror tracking & trigger units
- cables
- tripod
- Xcitex ProAnalyst® motion analysis software
- Pelican™ case

Hadland / MSI miniFF

(mini Flight Follower)

Our compact, high-performance turn-key imaging system, developed with **MS Instruments** does the work for you.

Compact, Portable Turn-key Imaging System – Ready for Action.

We're proud of our new & improved **miniFF** (mini Flight Follower) developed with our partner, **MS Instruments**. It's been redesigned to be lighter, more compact & easier than ever to set up to *do the work for you*. This all inclusive high-performance package **follows** speeding projectiles **in-flight** and records the action with high-speed video via a computer-controlled rotating mirror – high-speed camera included.

Key Features

- Low-cost, turn-key imaging system
- Integrated high-speed video camera
- Better than 0.1° tracking accuracy over 90° scan
- Remote operation via dedicated OS software, includes set-up wizard to ensure optimization for a variety of tracking geometries
- Fixed, measured or user defined velocity profile modes with multiple trigger inputs & built-in trigger delay
- Real-time 10MHz mirror position control enabling in-flight velocity & acceleration correction
- Mirror Halt function stops mirror mid-flight for impact analysis

mini FF Tech Specs

	Size	variable
Mirror	Scan ratio	0.1–100 (scan ratio = projectile velocity/stand off distance)
	Tracking angle	100° total, 90° tracking
	Angular tracking accuracy	better than 0.1°
	Flatness	1/4 wave
Control Unit	Operation modes	fixed, measured, multiple update or user defined velocity profiles 3x TTL, 3x sky screen, 1x multi-trigger (up to 256 inputs)
	Trigger output	1x +5v TTL in-sync with start of mirror scan (trigger for high-speed video camera) 2x TTL stand-alone (for 3D scan, etc.)
	Power	100–240 V AC (50–60 Hz)
	Communication	GigE/Wireless LAN
Camera	Resolution	1280 x 1024 pixels
	Frames per second	up to 20,000 fps
	Memory	2 GB (configurable to 16 GB)
Software	Ballistic DB	Xcitex ProAnalyst® motion analysis software

**BETTER GEAR.
BETTER RESULTS.**
We've got the gear you need to get the job done right

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