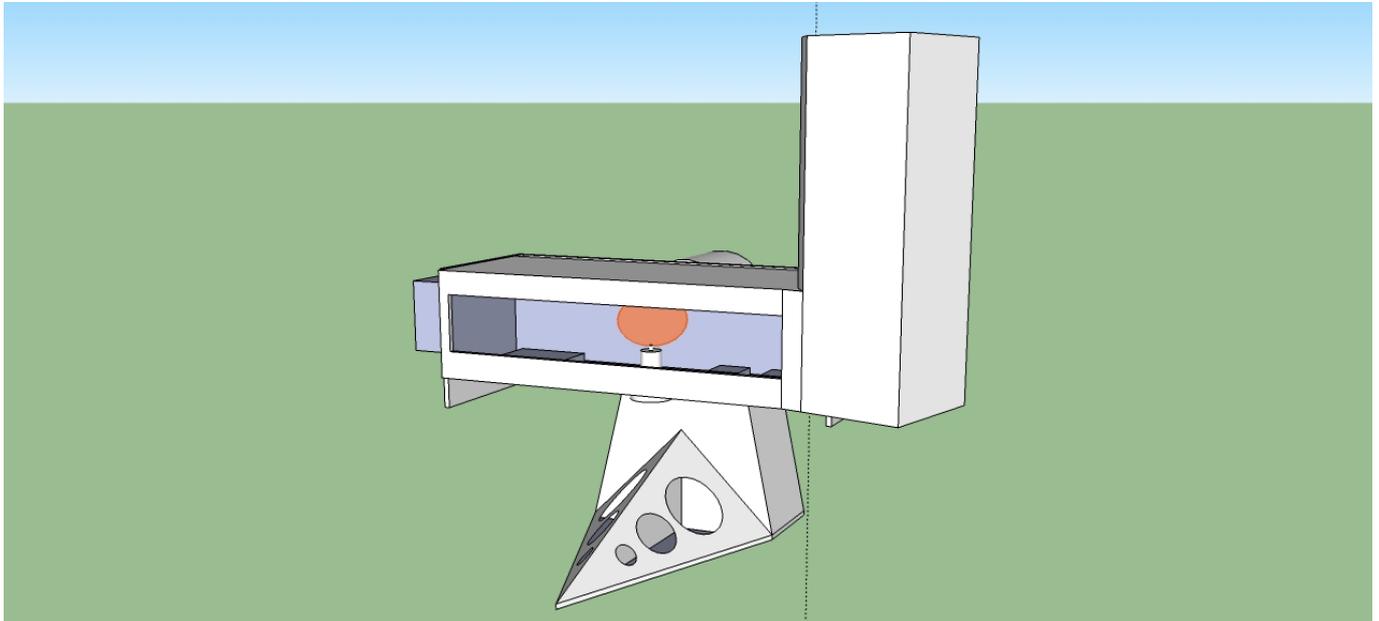


FLIGHT FOLLOWER SYSTEM



The Flight Follower has been developed to meet the high speed imaging needs of modern ammunition designers. Based on the concept originally pioneered by UK and USA defence research establishments, the system consists of a computer controlled triggered rotating mirror positioned in front of a High Speed Video camera. The mirror is programmed to rotate at the correct speed such that the camera will "follow" the projectile as it passes the Flight Follower position.

Typically, the system will track the trajectory for 100 metres or more as the mirror scans a 90-degree arc providing high quality images of the projectile in flight. The system has several modes of operation which are software selected depending upon the individual conditions of the test. The Flight Follower will track all medium and large calibre projectiles as well as other objects such as rockets, rocket assisted projectiles, sledge track tests etc. Horizontal or elevated firings can be recorded.

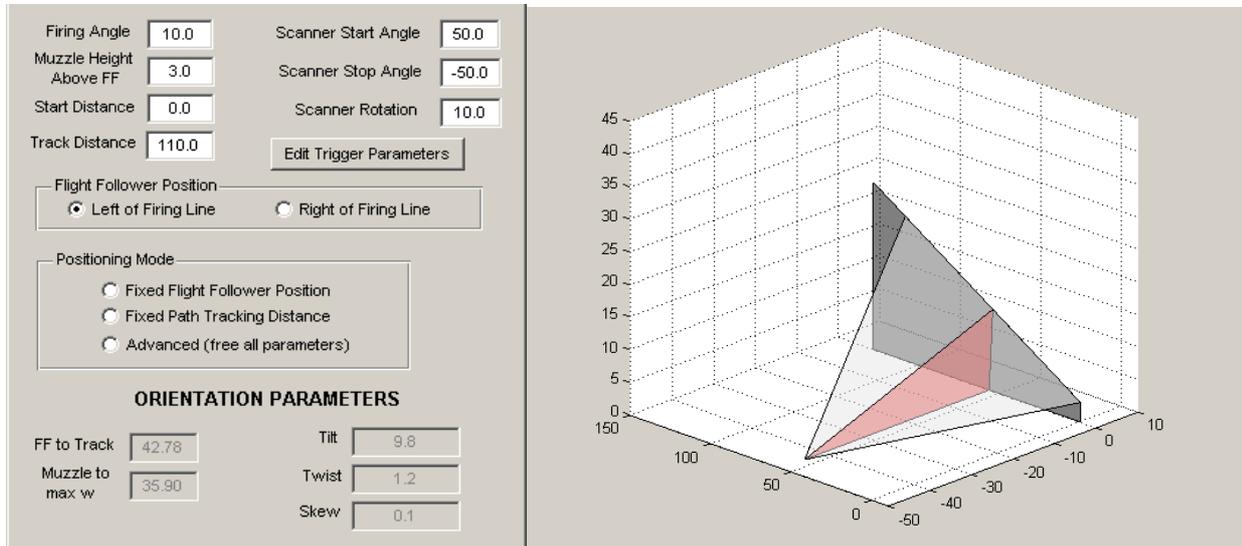
Our latest product offers much improved performance whilst eliminating the need for calibration. Also, the combined functionality of the hardware and software greatly simplifies system operation without limiting flexibility.

Key features include:

- ◆ **Better than 0.1° tracking accuracy over 90° scan.**
- ◆ **Remote operation via dedicated MS Windows software including set-up Wizards ensure optimised set-up for all geometries including Horizontal, Inclined and Skewed.**
- ◆ **Fixed, Measured or User Defined Velocity Profile modes with Multiple trigger (up to 128) inputs and built in Trigger delay.**
- ◆ **Real-time (10MHz) mirror position control enables in-flight velocity and acceleration correction.**
- ◆ **'Mirror Halt' function stops the mirror in mid flight for impact analysis.**
- ◆ **Standard Housing accommodates most High Speed Video systems.**
- ◆ **Housing allows camera focusing without obscuring flight path and 'One Man Lift' due to Modular Design.**
- ◆ **High optical throughput due large mirror, angled Optical Axis and optimised optical components for Visible or IR applications (optional).**
- ◆ **High Mechanical Stability with benefit of remote/automated tilt, skew and twist.**
- ◆ **Double Axis or Extended Trajectory analysis using two synchronised or more units.**

FLIGHT FOLLOWER SYSTEM

SYSTEM SOFTWARE



The combination of in-built instrumentation and software set-up wizards greatly simplify range surveying and equipment configuration which minimises set-up time and ensures optimum configuration for the range, projectile and camera. We also supply the video analysis software if required.

SPECIFICATION

MIRROR:

Size (largest): 133mm(h) x 88mm(w) x 3mm(d) surface silvered. (for visible)

Scan Ratio (highest): 1 - 100 (Scan Ratio = Projectile velocity/Stand Off Distance)

Tracking angle: 100° total, 90° tracking.

Angular tracking accuracy: Better than 0.1°

Flatness ¼ Wave

CONTROL UNIT:

Operation modes: Measured/Fixed/Multiple Update or User defined velocity profile

Trigger input: 3 x TTL , 3 x Skyscreen, 1 x Multi-trigger

Trigger output: 1 x +5v TTL in synchronism with the start of the mirror scan (normally used to trigger the High Speed Video Camera).
2 x TTL stand-alone (for 3D scan etc)

Power: 100 — 240v 50 – 60 Hz.

Communication: RS 232/RS 485/GBit Ethernet/Fibre Optic/Wireless LAN

HOUSING:

Rotation Range Tilt -5 to 90°, Twist +/- 45°, Skew +/-45° (all about mirror axis)

Rotation Measurement +/- 0.1 degrees

Automated Movement Yes (optional)

OPTIONS:

Mirror: IR mirrors are available