

# Enhancements

## *Motorised Pan & Tilt Head Enhancements*



### **Motion stabilisation**

Many real world applications involve the problem of precise line of sight positioning against the disturbance factors of wind loading or engine vibration. Often the mounting platform itself, say a vehicle or ship could be moving whilst the line of sight is being orientated.

For some applications it is helpful to stabilise the line of sight of the electro optic sensor, to minimise the effects of an unstable mounting platform. Examples of such applications include maritime surveillance systems or systems mounted on land vehicles or tall, flexible masts.

To address these requirements, Instro has developed a stabilisation option for the WASP motorised head which uses a separate gyroscope module to provide rate error correction information to the Wasps motors.

This approach is intended to stabilise against low frequency movements due to effects such as mast sway or the movement of personnel inside vehicles. However, it is also well suited for use as the "coarse" correction for systems using video stabilisation.

### **Marinisation**

A marinisation option is available on Instro heads for use in coastal surveillance or ship mounted applications. The marinisation option includes special paint, potted fasteners and marine rated connectors.



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## Motion Autotracking

With the worldwide increase in security threats comes the requirement for flexible and adaptable methods of intelligence gathering. The work burden on security personnel has increased because of this, especially in the field of high tech surveillance.

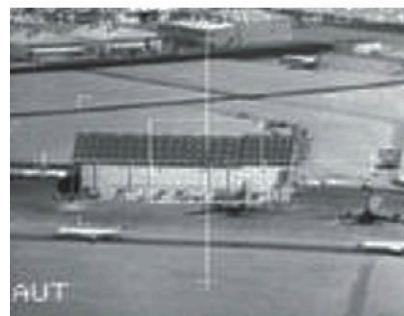
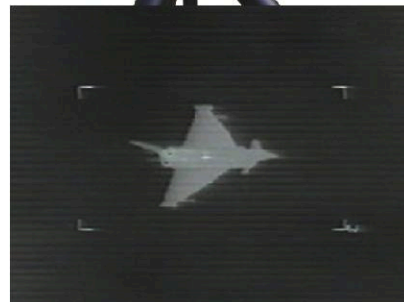
Where remotely mounted sensors are concerned there are many instances where the capability to automatically follow a target is useful. An obvious example being a ground based observation post tracking an aerial target. Less obvious is the tracking of a distant or slower moving target from a moving observation post such as a moving helicopter vehicle or ship. This capability is becoming more popular as once 'locked on', the sensor line of sight will automatically adjust with respect to the position of the platform ensuring that the subject is constantly in frame.

To address these requirements, Instro has developed auto tracking options for the popular WASP motorised head which uses Instro's Kestrel camera system in conjunction with a separate auto tracking module to provide tracking correction information to the Wasp's motors.

Additional or alternative sensors can be added such as thermal imaging cameras and or laser range finders depending on the customers application.

In addition to the Wasp, Instro have applied auto tracking technology to larger motorised pan and tilt units such as the Instro Mantis.

All Instro motorised pan and tilt units can be tripod mounted if required and are optionally suitable for maritime applications.



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