Vision®
Engineering Solutions

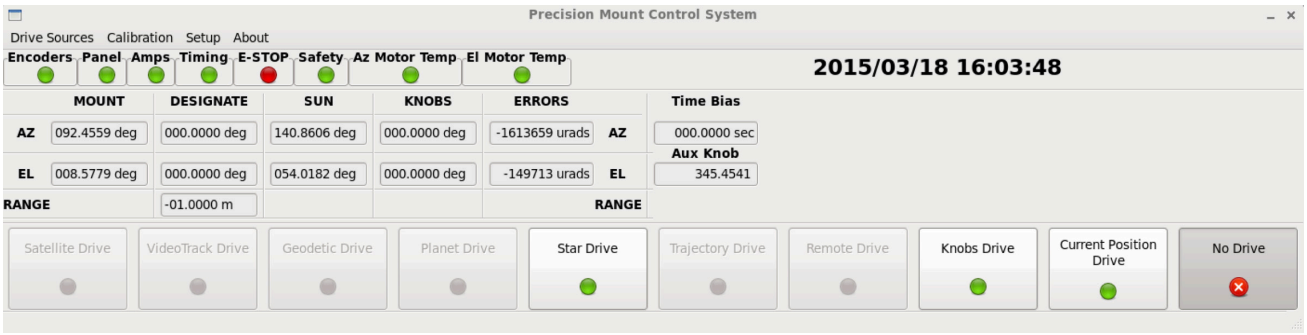
www.VisionEngineered.com

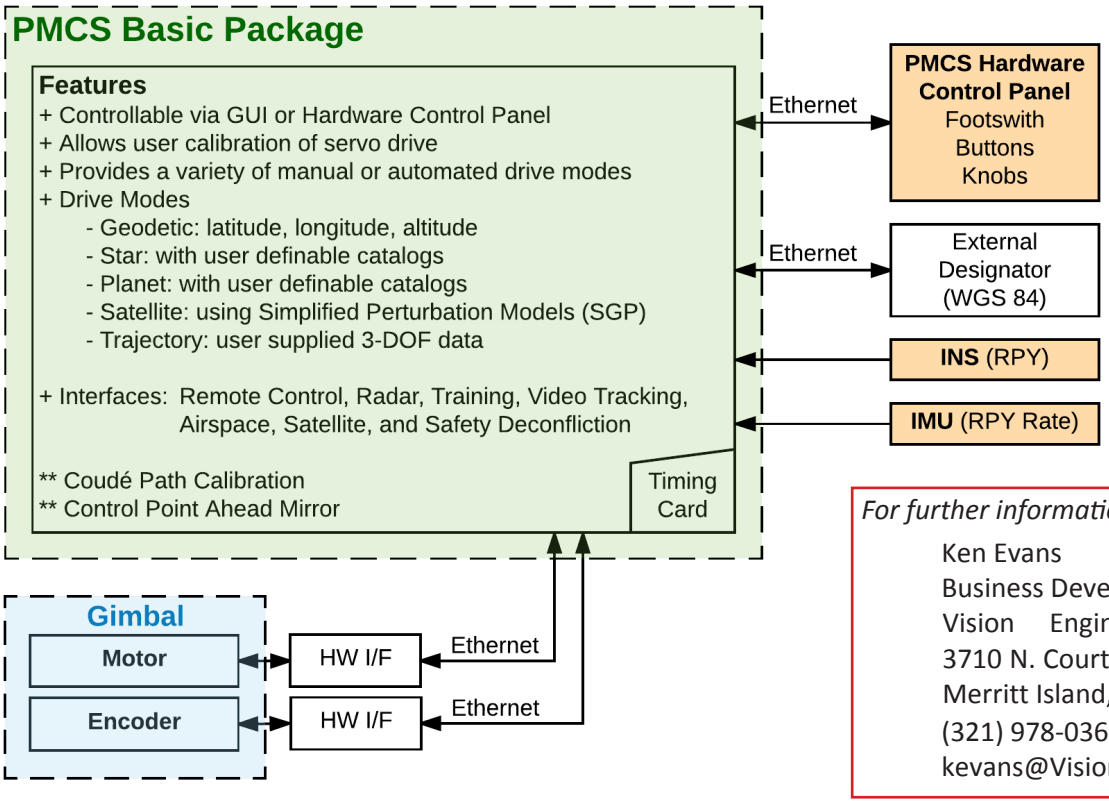
# Precision Mount Control System

## Precision pointing and tracking for alt-azimuth gimbals

At Vision Engineering Solutions, “we use what we sell.” The Precision Mount Control System (PMCS) is a universal gimbal control system for Alt-Azimuth(elevation/azimuth) tracking mounts. This product represents over 20 years of experience upgrading and refurbishing tracking systems. This flexible and adaptable control system provides state-of-the-art pointing and tracking capabilities, including: manual or automatic guiding, remote control, motion stabilization, video tracking, and more. PMCS can bring a new level of performance to your new or existing gimbal system.

*PMCS Software (GUI) Control Panel*





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If required, PMCS can utilize external drive inputs from radar, telemetry, video trackers, and external computers. It also has internal drive modes for tracking dynamic objects such as vehicles, watercraft, aircraft, stars, planets, and satellites. The system also has built-in calibration for gimbals and sensors, which allows these systems to reference target positions in absolute geodetic coordinates, such as latitude, longitude, and altitude. Add-on features for PMCS include: integrated video recording and tracking; motion stabilization and inertial referencing; and an integrated training system providing true hardware in the loop training. This makes PMCS the ideal cross platform pointing and tracking solution for your application.

## Calibration and Configuration

PMCS provides complete user access to hardware

- Built-in star calibration for gimbal and sensor models
- User calibration of servo drive via intuitive interface
- Configurable position and veolcity safety limits

*PMCS Hardware Control Panel*


## Knob Drive Control

PMCS provides 4 programmable knobs on the hardware control panel. We have found that knobs are far superior to joysticks for fine control of gimbals. The two large knobs are for fine control of azimuth and elevation. They have programmable sensitivity and can be used in position or rate mode. The smaller knob (TB) provides for fine control for time biasing (TB) of trajectory based modes. The AUX knob is for remote drive mode control.

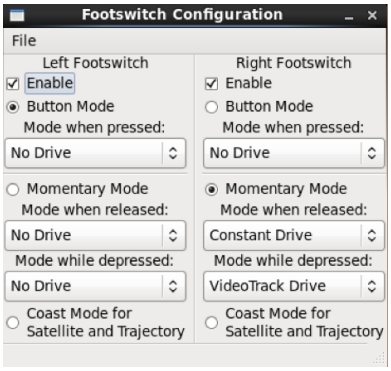
## Adaptability

- DC or AC servo motor interface
- Serial, parallel or Ethernet interface to most popular brands of position encoders
- Mission-adaptable external inputs: radar, telemetry, or external computer control
- Multiple user interface options: GUI, control panel, joystick or gamepad
- Ethernet broadcast data provides real-time feedback to external systems
- Multiple hardware configurations: foot switches, knobs, safety limits, amongst others.

## Footswitch Drive Control

PMCS provides 2 programmable footswitches (see dialog below). These footswitches can be used to augment user control of mode and switch between modes.

*Footswitch setup dialog*




## Available Options (custom order)

- Video: tracker, recorder and analysis solutions
- Motion stabilization and intertial referencing
- Custom Integration with user's gimbal
- Custom drive modes
- CLEAR2FIRE™ Laser Safety System
- Custom user controls: gamepads, joysticks, etc.
- Integrated training system: true hardware-in-the-loop training system using actual hardware