PRECISION ARMAMENTS AND INTELLIGENT SENSORS HARDWARE-IN-THE-LOOP LABORATORY

LABORATORY INFORMATION FACT SHEET

CONTACT US:

Technology Transfer Office

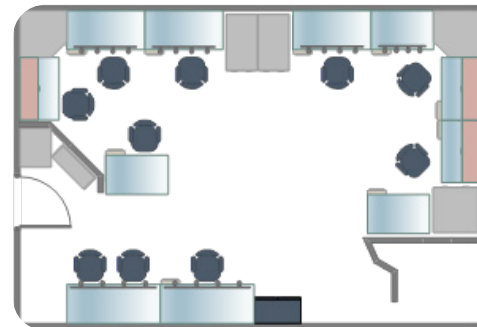Email: usarmy.pica.devcom-ac.mbx.t2@army.mil

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The Precision Armaments and Intelligent Sensors (PAIS) Hardware-in-the-Loop (HIL) Lab enables the user to evaluate real-time system performance of embedded systems.

TECHNOLOGY/FACILITY DESCRIPTION:

The PAIS HIL facility is easily adaptable to test a variety of systems such as GPS receivers, canard actuation systems, guidance navigation units and digital fire control. The HIL capability allows the user to test both the hardware and embedded software aspects of their particular system and can be configured for pre-flight performance testing as well as lot acceptance testing and stockpile surveillance.

EQUIPMENT AND EXPERTISE AVAILABLE:

- Spirent GSS-9000 GPS Satellite Simulator Test Rack
- Fully simulate L1/L2 GPS SPS and PPS (Y & M) signals
- Support for Honeywell/NG/AIS inertial unit testing
- Support for GPS contested environment testing
- Rubidium Reference
- RTOS equipment supporting 6 DOF model controls into GPS simulator

- Closed and open loop control of guidance and electronics and hardware
- Live Sky GPS Feed
- National Instruments Data Acquisition
- Espec BTX-475 Temperature Conditioning Chamber supporting hardware temperature conditioning
- Supporting laboratory equipment (Oscilloscopes, Power Supplies, Counters, Signal Generators, & a Signal Analyzer)

- Standalone Computing Capability
- Picatinny NIPR and DREN Network Computing Access
- 590 sqft electronics laboratory with fixed and mobile ESD benches
- Restricted Access Area