



# IARPA LINCS Proposer's Day Lightning Talk

Intelligent Systems Laboratory  
HRL Laboratories, LLC

Website: <https://www.hrl.com/laboratories>

Dr. Rodolfo Valiente Romero  
Dr. Jiejun Xu

[rvalienteromero@hrl.com](mailto:rvalienteromero@hrl.com)  
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# HRL Laboratories

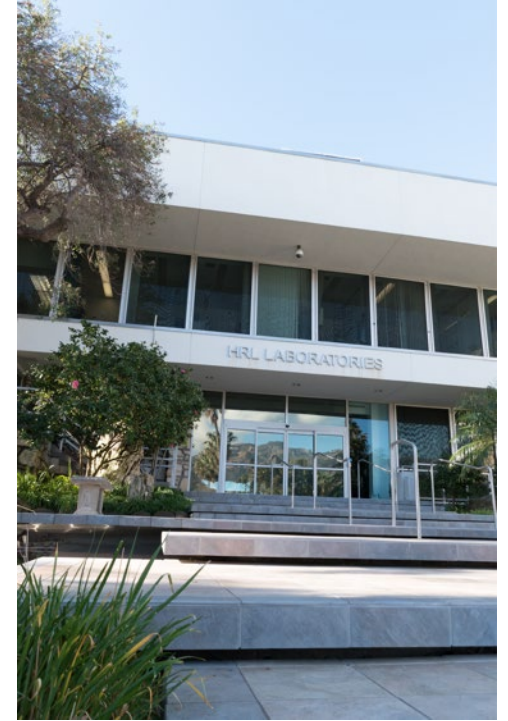
Limited Liability Company (LLC) Located in Malibu, Calabasas, Camarillo, and Westlake, CA  
With Two Members:



Core Competency, Cutting Edge R&D Infrastructure in Five Laboratories:

- Intelligent Systems
- Sensors and Electronic
- Microfabrication Technology
- Materials and Microsystems
- Vision Systems

Excellent Innovation Track Record: >1700 patents issued in last 20 years  
Government R&D contracts make up more than 75% of HRL's research





# HRL Laboratories Sites

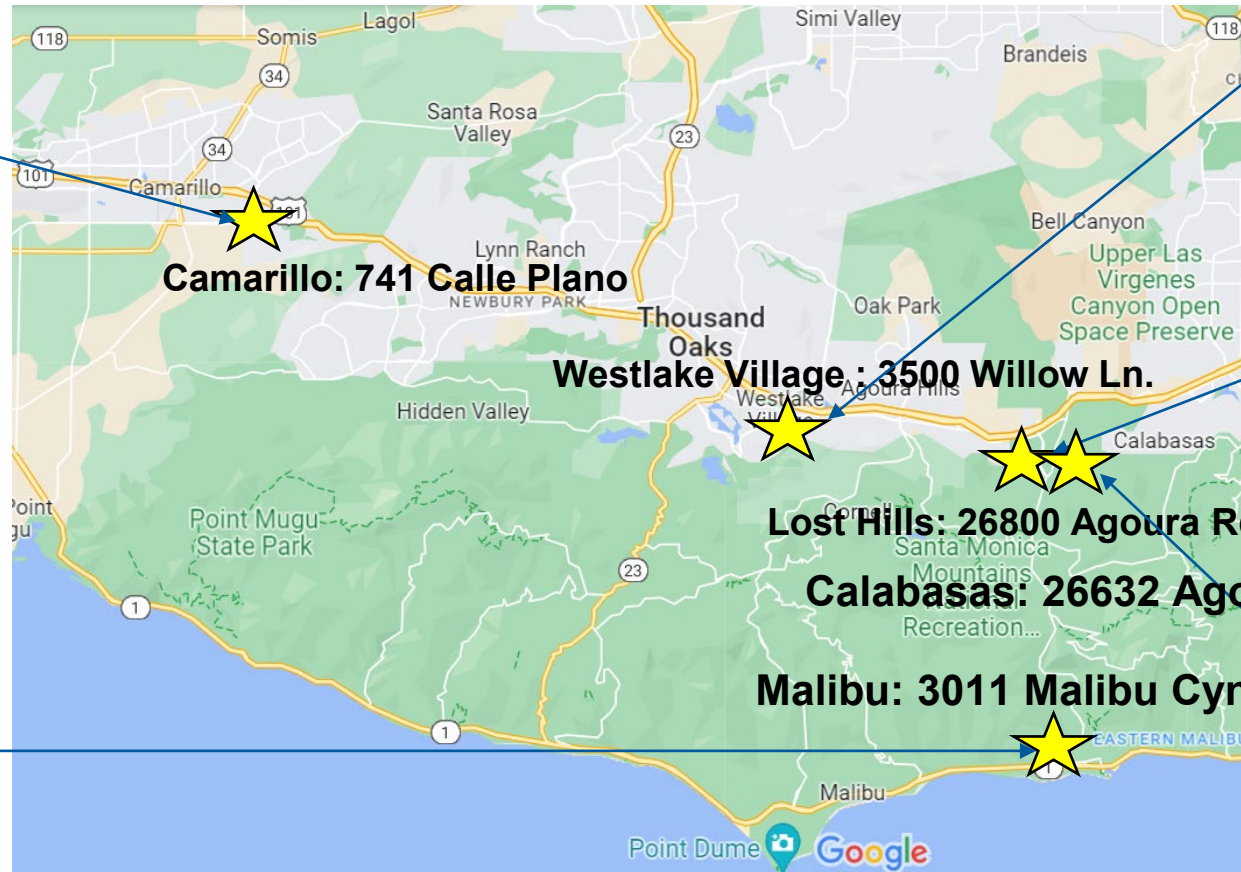
**1000+ employees: >90% hold advanced degrees**  
**Secure facilities**



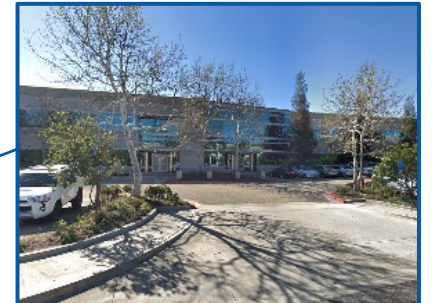
**Camarillo**



**Malibu**



**Westlake**

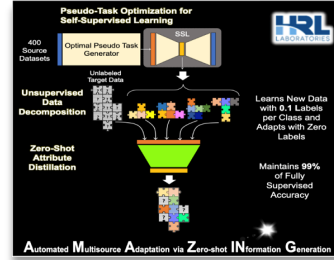
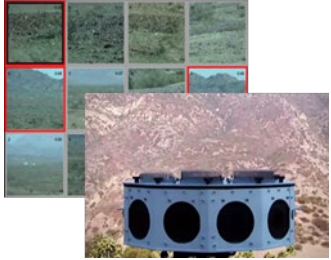


**Lost Hills**



**Calabasas**

## Relevant Competences



**DARPA CT2WS:** Threat detection in wide-field video using bio-inspired processing

**ONR NEMESIS:** Low SWaP COTS H/W, real-time, surveillance from drones for threat identification

**DARPA LwLL:** Advanced deep learning methods that can learn with few labels

**DARPA MAA:** Large-scale graph analytics for *connecting the dots* and *finding needle in a haystack*

- Prior success in managing and executing many government projects
- Proven track record of successful collaborations with industry and academia, resulting in significant technology transitions to customers
- Extensive capabilities in proactive threat detection, object and activity identification, surveillance, forensic analysis, tracking, anomaly detection, continuous learning; operating with limited labeled data, and in an open-world setting.
- Access to state-of-the-art computing infrastructure for large-scale data analytics

**Prime:** **DARPA:** LwLL, MAA, L2M, ASED, CT2WS, Neovision2. **IARPA:** OSI, HFC. **ONR:** NEMESIS, CADA

## Teaming Key Capabilities Why work with HRL?

### Knowledge Navigation

- Graph Computing
- Causal Abstraction & Reasoning
- Explainable Decision-Making

### Proficient Autonomy

- Data-efficient continual learning
- Metacognitive machines

### Operational Autonomy

- Assured and trustable autonomy
- Adversarial AI/ML
- Scalable AI/ML V&V

### Augmented Intelligence

- Bidirectional communication
- Cognitive modeling
- Human-state monitoring