

# LASER PROXIMITY SENSOR

## INTRODUCTION

Laser Proximity Sensor(LPS) has been developed to detect the target at pre-determined range during the terminal phase of flight of missile/bomb and initiate the warhead detonation, by generating a firing pulse, for maximum lethality. In addition, LPS also provides the range and sector information of the target.

IRDE has designed and developed Laser Proximity Sensor for Arial and Ground based targets.

### SPECIFICATIONS

- Detection range: up to 21m
- Detection zone : Forward looking optical cone
- Target : Arial /Ground based
- Output : a) Detonation pulse  
b) Range information  
c) Sector information
- Signal Processing time: < 1 msec
- Weight : < 3.0 Kg

### FEATURES

- Resistance to jamming
- Better range accuracy
- Omni-directional detection zone
- Modular design
- Compact size
- Directional information

## TECHNOLOGIES INVOLVED

The development of Laser Proximity Sensor involves the following technologies.

- Low level signal detection technology
- Precision & compact opto-mechanical technology
- Laser diode driver technology with high laser power, high PRF and narrow pulse width
- Development of fast signal processing to capture high PRF laser pulse for fast moving target
- Development of GUI for monitoring the various outputs during lab and testing

*All the above technologies were successfully developed at IRDE(DRDO) Dehradun.*

Interested industries may write to Director IRDE Dehradun at the following address-

1. Director, IRDE  
DRDO, Min of Defence  
Raipur PO  
Dehradun-248008  
Fax 0135-2787161/2787128

2. Director, DIITM, DRDO HQ.  
Min of Defence, DRDO Bhawan  
Room No. 447, B Block  
Rajaji Marg, New Delhi-110011  
Fax 011-23793008

3. Mr. RKS Rawat, Jt. Director  
Phone: 0135-2782564