LaserCatch 3000/1000 is a special version with longer focal optics to get highest resolution at long range. This is optimized not only to see but to identify persons and events at ranges of 1000-3000 meter in distance in total darkness.

The very high quality image is far better for this purpose than thermal images to see details and faces of persons. Here the new 1000 mm focal length optics make this far easier.In harbor and border applications this is essential and here we have the solution for this demand.

For moveable installations we have an actively stabilized system with INS and GPS connections.

Main characteristics of LaserCatch 3000/1000

* Laser beam and camera can be zoomed by command

* Laser unit is a multimode laser with homogenizator to give very uniform illumination all over beam surface.Micro lens array solution. No speckle from laser.

* Smart zoom where laser tracks camera zoom automatically.

* Large diameter special optics with optimized AT coatings for visible and Near IR spectra

* 1000 mm focal length camera zoom optics 16,7 to 1000 mm focal. Zoom ration 60X. Field of view 0.3 to 21 degree.

* 1/2 Inch high sensitivity CCD camera with day + night mode operation. 600 TV lines resolution.

* Sensitivity of camera 0.02 Lux in color and 0.0009 Lux in monochrome mode of operation.

Outputs of system.

Man at a pier at 1500 meter in distance. Here we have an overview with not full zoom. It is night and very dark and the more bright area is the laser beam illumination. Here beam is slightly smaller than the field of view but this can be adjusted manually or be auto tracking.
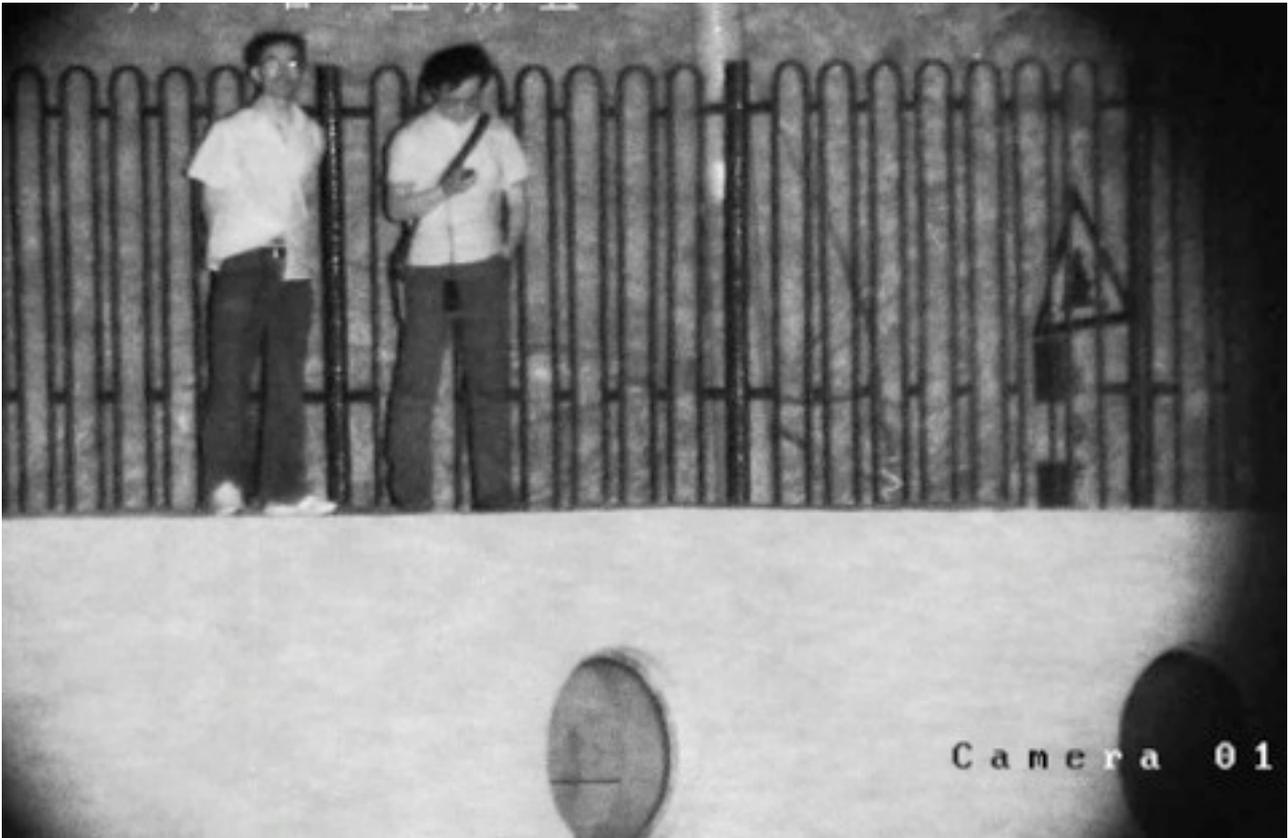
Zoom up at 1500 meter in distance. Here we have the needed resolution to see who is there and what they do in detail. Beam is infrared and at this long range the persons may not easily be aware they are observed at all.

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Image done in a harbor surveillance application at full 3000 meter in range. Here it is dark but not very far from a harbor. Eyes could not see this boat at all at this range.

This shows the capabilities of LaserCatch 3000/1000 system. As system can be remote controlled and have a web interface one command centre can operate many cameras.

We also offer a special tracker that can read GPS and coordinates and point the camera to a set coordinate. This makes slave control by radar possible.

There is a boat version where the PT unit is different and stabilized for sea operation. Here we aim and track targets at rough sea.

On demand we add a thermal camera beside the laser camera.

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Technical specifications.

Effect distance	3000M at night, 5000M at daytime
Laser lighting source	1. Wave length:810nm; 2. Illuminating angle: 0.3-17° continuous changing
Laser lens	1. 50 times 100mm Laser telephoto lens; 2. F 2.0;
Laser power	1. Two circuits drive; 2. Stable voltage and stable current; 3. Power on for 1s,
Imaging Components	1. 1/2'' infrared enhancement CCD, day/night mode; 2. Pixel: 752×582; 3. Resolution: 540 TV lines Day Mode, 600 TV lines Night Mode; 4. Illumination: 0.02LUX (color), 0.0009LUX（black white）
Imaging Lens	1. Focal Length: 16.7~1000mm infrared correction high definition lens, 60 times (2x can reach 2000mm) 2. F: 3.5~F16; 3. FOV: 21°～0.3°
Intelligent simultaneously zooming	1. SSZ intelligent control 2. Laser illuminator can be adjusted independently 3. Synchronous response: 0.1s
Axis adjusting structure	1. Adjust: MMA Outside, presetting windows, 2. Precision: 0.01°
Photosensitive control	Independent photosensitive control circuits; Data process: 30s strong light judge automatically

Cover	1. Material: high precision aluminum alloy shell; 2. Window glass: microlite optical glass, multilayer AR film; 3. PTA dope, IP66
Pantilt decoder	1. Upload weight: 50kg. 2. Angle: pan 360°, tilt ±45°; 3. Speed: 0~9°/s; 4. Presetting bits: 80, support lens zooming/focus memory; 5. Patrol: 8 paths, each path can set up 80 points; 6. IP66; 7. Lightning-proof: 2000V; 8. PELCO D、P and other protocols, baud rate optional;
Power supply	1. AC24V, accompanied with AC220V-AC24V power box; 2. Lightning-proof: 4000V, communication video signal 2000V
Power consumption/Weight	1. Total power consumption: 150W; 2. Weight (including pan-tilt): 40kg;
Interface	1. Control: RS485; 2. Power supply: AC220V input; 3. BNC video output
Environmental indicator	1. Working temperature: -25℃~+55℃; 2. Storage temperature: -40℃~+65℃; 3. Anti-vibration: 15m/s^2 5~200Hz; 4. Anti-impact: 150m/s^2 11ms; 5. Anti-saltfog: continuously spraying 48hours under PH of 6.5~7.2