



PRIME 41



PRODUCTION-READY

Over 100' camera-to-marker range, wide 51° FOV, discreet IR illumination —with traditional optical technology, you've been told you can only pick one of these. The Prime 41 delivers all three.

REFERENCE VIDEO

Any of your Prime 41 capture cameras can also operate in full frame grayscale, for reference video that's sync'd and calibrated with your mocap system.

ON-BOARD PROCESSING

Our heralded real time, on-camera image analysis delivers clean, reliable data to your PC with minimal demands on your CPU for efficient system scaling.

SUPERIOR PRECISION

Boasting 4.1 MP, the Prime 41 delivers pixel for pixel performance that outclasses all other cameras—in most applications less than +/- 0.10 mm.

ON-CAMERA AIM ASSIST

One person can efficiently setup their system with our on-camera Aim Assist. Activate your camera for aiming with one button press on the back of the camera.

CAMERA CONTROL

Control exposure, frame rate, resolution, image processing mode, LED intensity, and more directly from the application UI.

WORLD CLASS LENSES

We custom design our own super low distortion, high transmission lenses. Our "fast glass" dramatically increases camera range and capture volumes.

VISUAL STATUS INDICATOR

A customizable on-camera visual alert system provides immediate feedback on camera health and activity. As camera status changes, so does the color of the indicator ring.

FREE CAMERA SDK

Integrate Prime 41 cameras into your custom tracking and vision applications with the free Camera SDK, which offers a simple C++ interface.

TECHNICAL SPECIFICATIONS

CAMERA BODY

- Width: 4.96 inches (12.6 cm)
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- Depth: 5.34 inches (13.6 cm)
- Weight: 3.2 pounds (1.45 kg)
- Mounting: 1/4"-20 tripod thread (x2)
- Status Indicators:
 - 2 digit numeric LEDs
 - Full-color LED health and activity indicator

IMAGE SENSOR

- Pixel Size : 5.5 μm \times 5.5 μm
- Imager Size : 11.264 mm \times 11.264 mm
- Imager Resolution : 2048 \times 2048 (4.1 MP)
- Frame Rate: 30-180 FPS (adjustable)
- Accuracy: Sub-millimeter
- Latency: 5.5 ms
- Shutter Type: Global
- Shutter Speed:
 - Default: 500 μs (0.5 ms)
 - Minimum: 10 μs (0.01 ms)
 - Maximum:
 - 8100 μs (8.1 ms) at 120 FPS
 - 5300 μs (5.3 ms) at 180 FPS

IMAGE PROCESSING TYPES

- Object (Centroids)
- Precision (Grayscale)
- Segment (Thresholded)
- MJPEG Grayscale (up to 120 FPS)
- Raw Grayscale

LENS & FILTER

- Stock Lens: 12 mm F#1.8
 - Horizontal FOV: 51°
 - Vertical FOV: 51°
- M12 Lens Mount
- Adjustable focus and f-stop
- 850 nm notch filter

LED RING

- 170 LEDs
- 850 nm IR
- Adjustable brightness
- Strobe or Continuous Illumination

INPUT/OUTPUT & POWER

- Data: GigE (1000BASE-T)
- Camera Sync: GigE
- Power: PoE or PoE+¹

SYSTEM REQUIREMENTS

- Windows XP/Vista/7
- 1GHz processor
- 1GB of RAM
- 50MB of available disk space
- USB 1.1 port for Hardware Key
- 1 standard PoE Ethernet Switch port per camera (with full 15.4 watts at 44 volts per port)

IN THE BOX

- 1 Prime 41 camera (part number: P41)
- 1 Quick Start guide

1. PoE+ switch required for full IR LED power. Max IR power is 4.5W on standard PoE and 15W on PoE+.

