



PHOTOVISION®

HIGH-SPEED PHOTO-FINISHES

CONSISTENTLY DELIVER IMMEDIATE,
CLEAR AND PRECISE RACE RESULTS



PHOTOVISION®

PhotoVision is a sports timing **full-frame** camera solution available in 120, 200, 500 and 1,000 frames-per-second (fps) models that deliver full-color, time-stamped photos to evaluate athlete results with ease and maximum accuracy (for equivalent frames per second (EQ fps) compared to line scan cameras, see the chart on page 2). PhotoVision produces fully automatic timing (F.A.T.) results accurate to 1/1,000th of a second. F.A.T. compliant systems are required by a growing number of organizations such as USATF, IAAF, etc.

BENEFITS

- ✓ **EASY TO DEPLOY**
Using the latest developments in optics and electronics, PhotoVision can be set up in less than 10 minutes and will allow you to capture crystal clear color photos immediately.
- ✓ **EASY TO USE**
With Live View and Photo Viewer, Time Markers, Light Adjustment and Auto-Capture, and the full-frame camera solution, you'll be able to quickly and accurately determine finish order and times to 1/1,000th of a second.



PhotoVision shown with optional FATcap Transmitter, Receiver, and standard tripod.

PERFORMANCE & SPECIFICATIONS

PhotoVision

Features	PhotoVision 1000	PhotoVision 2000	PhotoVision 3000	PhotoVision 4000
*EQ Frames/Second	1,080	1,800	4,500	9,000
Focus Capabilities	Fixed/Variable	Fixed/Variable	Fixed/Variable	Fixed/Variable
Resolution	640 x 480	1280 x 1020	800 x 600	640 x 480
Color/Black & White	Both	Both	Both	Both
Computer Interface	USB 3.0/3.1	USB 3.0/3.1	USB 3.0/3.1	USB 3.0/3.1
Supports 6-25 mm lens	YES	YES	YES	YES
Variable Brightness & Gamma	YES	YES	YES	YES
Photo Enhancement Tools	YES	YES	YES	YES
Zoom - Manual & Digital	YES	YES	YES	YES
Automatic Capture	YES	YES	YES	YES
Integrates with Laser Curtain	YES	YES	YES	YES
Communicates with Digital Clock	YES	YES	YES	YES
CSV File Export of Timing Data	YES	YES	YES	YES
Supports FAT for Track & Field	YES	YES	YES	YES
Windows 8 or 10, Home or Pro Versions	YES	YES	YES	YES

*EQ is a measure of equivalent frames per second when PhotoVision is compared to line scan cameras.





FATCAP

The FATCAP Transmitter and Receiver are the heart of the F.A.T. (Fully Automatic Timing) solution of PhotoVision. When a starter pistol is fired, the FATCAP Transmitter sends an electronic start signal to the FATCAP Receiver, which is connected via USB to the Windows computer running the PhotoVision Software. The FATCAP Receiver includes two ports for Jaguar accessories, including our digital lasers. Now you can trigger photo capture automatically and send finish times to the optional Jaguar Digital Clock. Times are recorded to 1/1,000th of a second!

BENEFITS

- ✓ **EASE OF USE**
Lightweight wireless Transmitter that detects starter pistol firing while ignoring crowd noise and loud music.
- ✓ **WIRELESS**
Forget about messy cables. Transmit the PhotoVision start signal up to nearly 2,000 ft (600 m) away from the FATCAP Receiver.
- ✓ **MULTIPLE INTERFACES**
Supports multiple lasers for triggering photo capture and updating a Jaguar clock with the winner's finish time.



TRANSMITTER



RECEIVER

PERFORMANCE & SPECIFICATIONS

PhotoVision » » » HOW IT WORKS

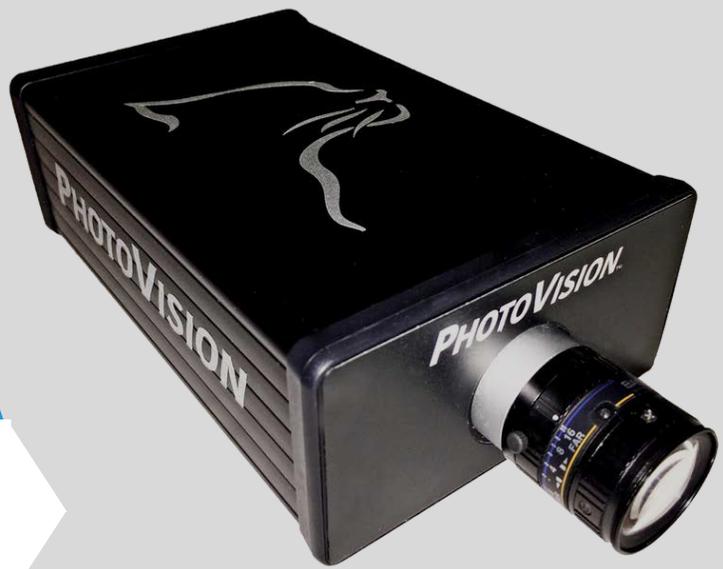


Transmitter	Specifications
Power Supply	Three AA batteries
Battery Life	24 hours of usage
Transmission Range	Up to 2,000 ft (600 m)
Operating Frequency	2.4 GHz range
Protection	Water resistant
Size	5.75" x 3.5" x 1.1" 14.6 cm x 8.9 cm x 2.8 cm
Weight	0.8 lbs/ .36 kg

Receiver	Specifications
Power Supply	USB port on laptop
Current Draw	<500 mA
Receiver Sensitivity	Adjustable
Operating Frequency	2.4 GHz range
Protection	Water resistant
Size	7" x 5" x 2" 17.8 cm x 12.7 cm x 5.1 cm
Weight	1.4 lbs/ .64 kg



SMART INVESTMENT



Question: What makes PhotoVision different, or a better choice, than other products?

Answer: Our firm has over 10 years of experience manufacturing timing and photo products for the sports industry. Our extensive engineering expertise has allowed us to create a new generation of photo solutions that are finally affordable, quick to deploy, easy to use, with amazing features such as intelligent automatic capture, dynamic lighting adjustments, automatic bookmarks, continuous recording, and more.

Question: Do you have specific examples of your product's advantages?

Answer: Yes, our camera captures the entire field of view in **Color**, at a width up to 10 feet (3 m), giving you better images and more frames to work with when identifying athletes. Also, you can use our Jaguar Lasers to automatically start capturing frames when the athletes cross the finish line. In addition, PhotoVision will send the finish time instantly to our Jaguar Digital Clock.

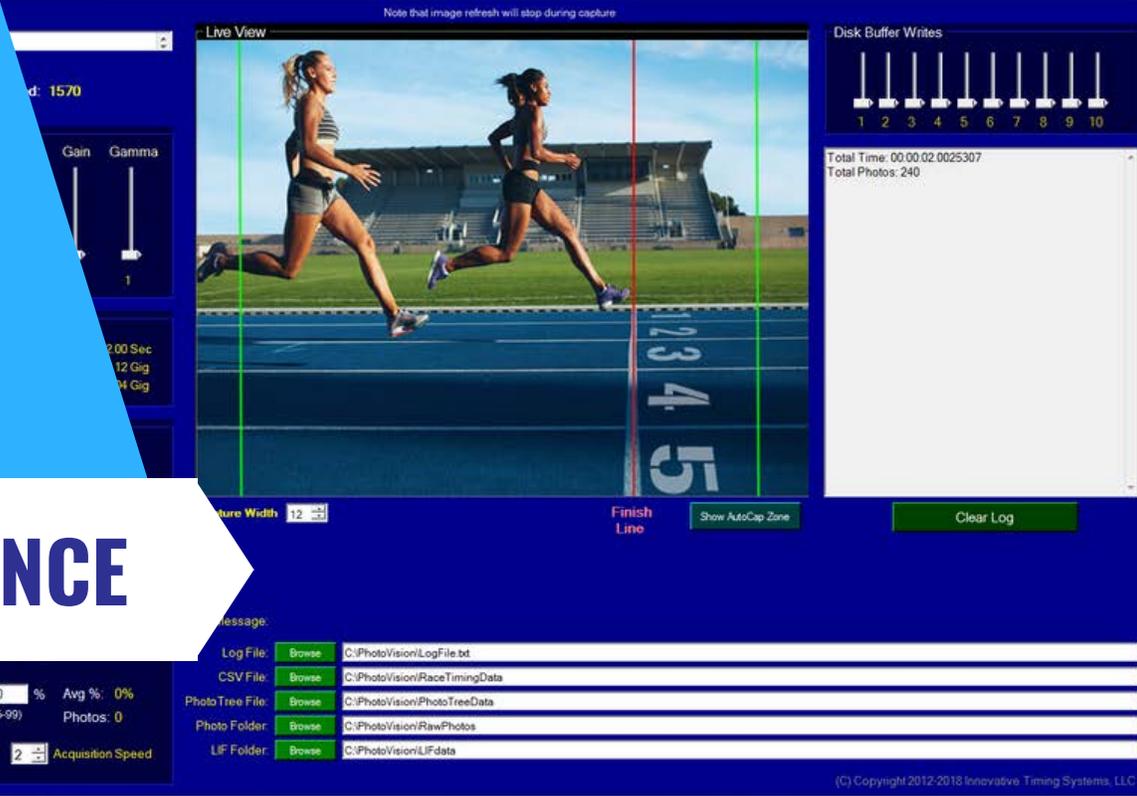
When analyzing pictures to determine exact times of athletes or vehicles, you need tools that improve the accuracy to 1/1,000th of a second. Our 1,000fps cameras provide this capability. However, in some cases you can save money and use our 200fps camera. That's because we implemented advanced software algorithms that narrow the time down to the most plausible 1/1,000th of a second.

Another advantage of PhotoVision is that it leverages the latest economical USB SuperSpeed standard (USB 3.0/3.1 SS). By comparison USB 3.0/3.1 SS delivers up to 10 Gbps or 10 times faster than Ethernet-based solutions on your Windows i7 laptop. You win on all fronts. PhotoVision is more economical, easier to set up and operate, and most importantly, the operator can view images instantly.

Customer Testimonial...

Despite timing over 250 road races each year, I was nervous about getting into track and field since it is such a different type of race. However, I was able to learn the software and camera setup with PhotoVision very quickly. Innovative Timing Systems has designed a very easy to learn product that provides extremely high resolution images that are both highly accurate, but also easy to view and score an event quickly and seamlessly. I was surprised at how many events reached out to us in our first year and we timed over 15 races in our first season! Not only am I impressed with the product, I am looking forward to purchasing 2 more cameras for next year so we can meet the need in our area."

PERFORMANCE



In summary, PhotoVision:

- Leverages all of the latest technologies in computers (Processor, Graphic Cards, Memory, SSD disk, USB SS interface) to enable capturing full-frame shots in color at speeds of up to 1,000 fps to disk (for up to 2 minutes continuously).
- Delivers powerful software features to help the operator determine, almost instantly, the finish time to 1/1,000th of a second (even with cameras that record less than 1,000 fps).
- Is easy to learn.
- Is up and running in minutes with the wireless FATCAP Transmitter and Receiver.
- Requires Windows i7 computer, 8GB RAM (16GB recommended), 1920x1080 screen resolution, and USB 3.1 port.

PhotoVision Features	Unique Benefits
Lighting Adjustment	Camera lens aperture ring as well as software adjustments
Capture Width	Full-frame color image; generally up to 10 ft (3 m) in width
Photo Viewer	Instant viewing of captured images with rapid scrolling
Lane Markers	Adjustable on-screen markers that make it easy to identify lanes
Live View	View image in real-time exactly as it will be captured
Accuracy	Photos captured with time stamps of 1/1,000th of a second
Photo Adjustments	Variable zoom and the ability to re-color photos to improve viewing
Data Formats	Interfaces with Jaguar timing products and third party Track & Field scoring software
Windows	Runs on Windows 10 Pro, 10 Home, 8 Pro, or 8 Home

Still have questions?

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