

# FINISHLYNX ROWING AND PADDLING PACKAGES



## TIMING SYSTEMS FOR ROWING AND PADDLING

### COMPLETE

FinishLynx timing packages are all-inclusive and contain everything you need to produce certified photo-finish results at any size race. These packages are made to fit every budget level, use the very latest technology, and are designed to be fully upgradeable to a higher specification at any time.

### APPROVED

All FinishLynx cameras, starting systems, split timing devices, and wireless technologies contained in these packages meet or exceed the technical standards of the FISA, and have been designed to address the specific challenges of wide, outdoor water courses.

### UNIQUE

Lynx is a world leader in sports timing. No other photo-finish system offers such high frame rates, such a variety of premium features, such compatibility with third-party devices, or such a broad list of native languages. Lynx supports thousands of races across the world.



## LYNX SYSTEM DEVELOPERS, INC.

To find your local recommended reseller:

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**Email:** [intlsales@finishlynx.com](mailto:intlsales@finishlynx.com)

**Phone:** USA: (978) 556 9780

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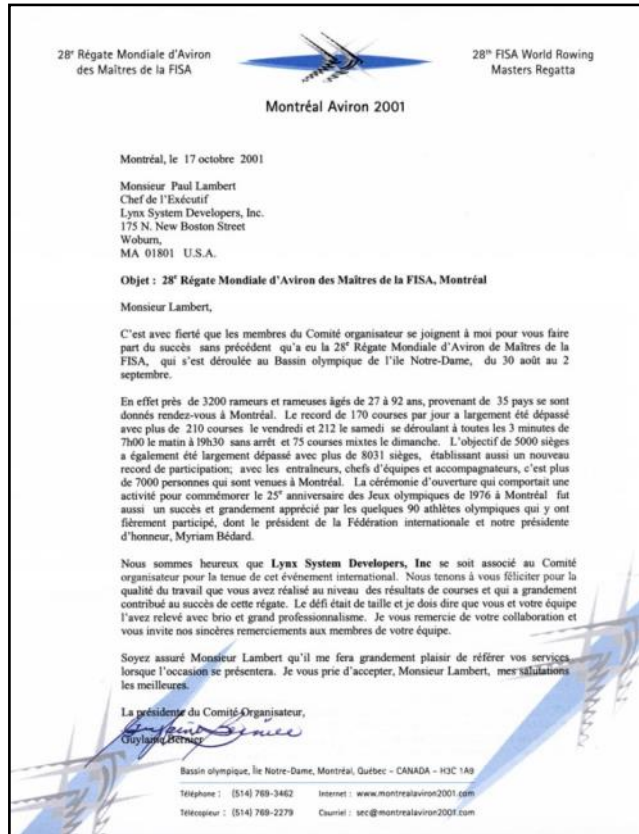
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# Rowing Reference Events

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- FISA World Rowing Masters Regatta
- Head of the Charles Regatta
- US Olympic Rowing Trials
- ICF Canoe World Championships
- Asian Beach Games (Dragon Boat)
- Regata Storica di Venezia
- Royal St. John's Regatta
- ICF World Wildwater Championships
- Danube Regatta - Hungary
- South Africa National Rowing Championships
- Lynx Technology is currently installed at the legacy venues of several recent Olympic Games

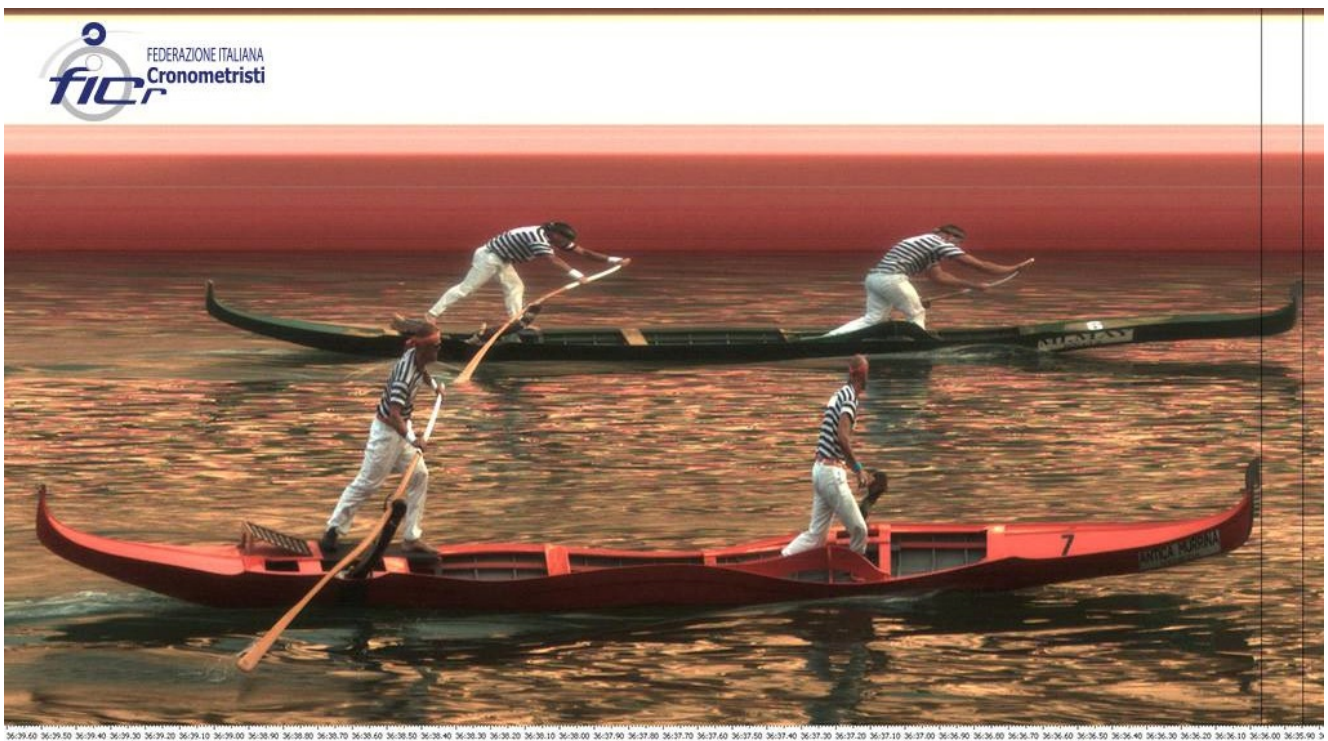
## Extract From FISA RULEBOOK

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**Rule 79-3: Photo-finish** – In the case of a close finish the Judge at the Finish shall determine the order of finish by viewing the picture produced by the photo-finish system. The necessary equipment shall be operated by specialists who do not form part of the team of Judges at the Finish. Systems using less than 100 frames per second are not suitable for determining the order of finish. Organizers must provide equipment specially designed for the purpose.



## SPECTACULAR RACE IMAGES



36:39.60 36:39.50 36:39.40 36:39.30 36:39.20 36:39.10 36:39.00 36:38.90 36:38.80 36:38.70 36:38.60 36:38.50 36:38.40 36:38.30 36:38.20 36:38.10 36:38.00 36:37.90 36:37.80 36:37.70 36:37.60 36:37.50 36:37.40 36:37.30 36:37.20 36:37.10 36:37.00 36:36.90 36:36.80 36:36.70 36:36.60 36:36.50 36:36.40 36:36.30 36:36.20 36:36.10 36:36.00 36:35.90 3





## Your 1-2-3 Guide to Understanding the Secret Behind Lynx Photo-Finish Cameras

### What is Line-Scan Photography?

#### 1. A one-second span may contain up to 10,000 consecutive images

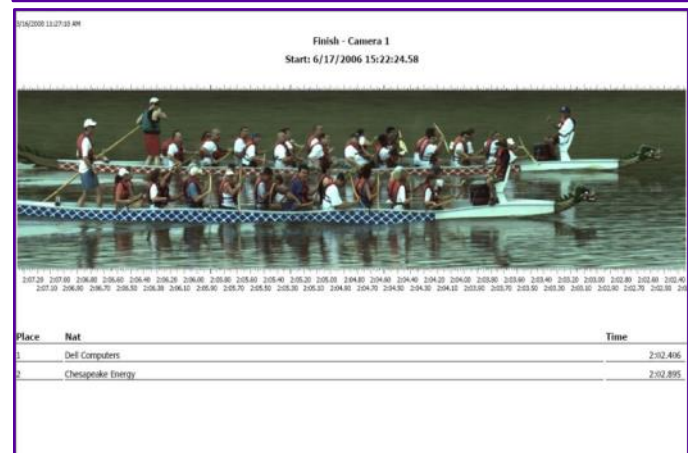
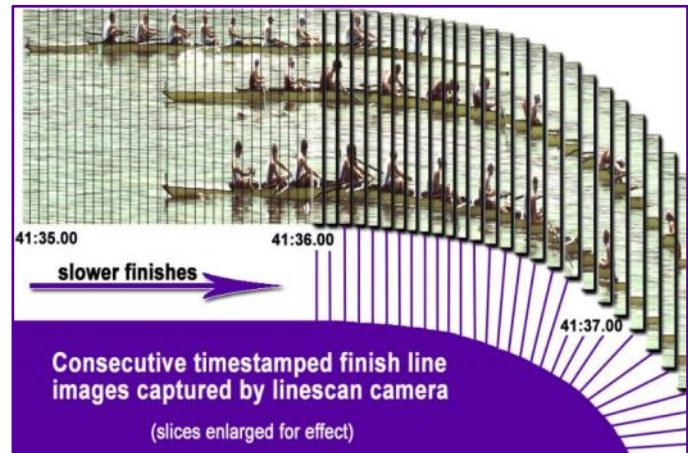
One way to think of line-scan photography is to imagine sitting in a room and watching through a small crack in the door as a person runs down the hallway. When they run by the door, you're only able to see a thin "slice" of them through the crack. Line-scan photography means that thousands of consecutive photos are captured by a one pixel-wide digital CCD sensor and then combined to create one large composite image. (See process to the right).

#### 2. Each vertical slice captures activity at the finish line at a precise moment in time

A FinishLynx photo-finish image is actually comprised of a series of incredibly thin individual pictures of the finish line – and the object that was crossing the plane during this fraction of a second. Because each vertical image is automatically time stamped, you have irrefutable photo-finish evidence for every competitor that crosses the finish line – **down to the millisecond**. When combined by the FinishLynx software, each of these thin, time-stamped images creates a recognizable picture of the entire shell, kayak, canoe, or dragon boat crossing the plane of the finish line.

#### 3. All time-stamped slices are combined into one high-resolution image

The beauty of line-scan photography is that while it may sound complicated, all the data is conveniently woven together for easy review. Thousands of consecutive images are automatically combined to create a real-time composite image of the results. More importantly, because each thin slice includes a precise time-stamp, clicking any point in the image reveals the exact time down to the millisecond that it was captured.



### How Accurate is Line-Scan Technology?

Line-scan photography has long been used for high-resolution image capture in many disciplines – from fax machines and scanners to scientific and medical applications. Lynx has applied this same technology for rowing and paddling events to create the most precise photo-finish technology available in sports today.

Lynx cameras have an incredible variety of settings, which means that you can find the right rate/resolution for your rowing and paddling needs. And with speeds up to 10,000 fps, you can discern the smallest margins of victory.



## Bronze Package



Lynx photo-finish timing technology is used around the world for all types of competitive rowing and paddling events, from traditional sprints and head races, to Canoe/Kayaking, and Dragon Boat events. Moreover, our photo-finish systems have been proven at the highest levels of competition, including the Head of the Charles Regatta, US Olympic Rowing Trials, the FISA World Rowing Masters Regatta, and ICF Canoe Sprint World Championships.

Lynx has designed packaged solutions to specifically address the numerous issues associated with water courses including covering wide finish lines and handling solar glare. Anchoring this entry-level package is the **full-color EtherLynx Vision** photo-finish camera. The Vision camera includes a **remote controlled zoom lens**, a frame rate of 500 fps, and vertical resolution up to 1,000 pixels. It also comes standard with EasyAlign video alignment mode to make camera setup easier than ever.

The camera plays a key role in producing high-quality photo-finish images, but it's the FinishLynx timing software that transforms raw data into results. This Windows program integrates timing devices, race data, lane assignments, and photo-finish results into a simple user interface. This powerful hardware/software combination makes the Bronze Package the most capable and cost-effective entry-level solution for rowing and paddling events.

## Components

- **Camera: EtherLynx Vision**, color, timer-enabled, 500 frames per second, 1,000 vertical pixels
  - **EasyAlign** 2-D Video Alignment Mode
  - Remote Control 12.5-75mm C-Mount Zoom Lens
  - Power-Over-Ethernet
- Super Head Clamp, Geared Mounting Head, and Tripod for precision adjustment
- All-inclusive Camera with Capture Button, Ethernet Hub, and USB-to-Serial Converter
- Custom carrying case
- **LynxPad** – Event management software
- **FinishLynx** – Multi-language\* photo-finish results software

\* See website for current listing. FinishLynx available in English, Spanish, French, Arabic, German, Italian, Korean, Portuguese, Russian, Swedish, Finnish, Chinese (Simp.), Chinese (Trad.), Japanese, and more

## Bronze Package Features

- Digital images shot at up to 500 frames per second provide accurate, indisputable photo-finish results no matter how close the finish.
- The mounting hardware, EasyAlign Mode, and remote controlled zoom lens ensure easy camera setup, adjustment, and captures on any course variation.
- The "building block" nature of Lynx packages means that your existing components can be upgraded at any time, and you are never limited by your initial purchase.
- Quick-start guides and a technical support hotline make the transition to photo-finish timing easy and painless. If any problems arise, Lynx technicians are on-hand for maintenance and support.

## Bronze Package Benefits

Because so many races come down to the final few strokes, photo-finish cameras are an essential addition to the sport of rowing. While there are fundamental differences among rowing and paddling, all water events share a universal set of challenges. Solar glare, for example, can be an issue when capturing races on water. The Vision camera has a light sensor that deals especially well with reflections and changes in light, and an auto-iris control that constantly monitors ambient light conditions and adjusts the lens aperture automatically. The camera also includes EasyAlign video alignment mode. Simply click the 2-D alignment button inside FinishLynx and you'll see a live video of your finish line with two guide-lines making it easier than ever to align your camera.



# The Rowing Bronze Package

FinishLynx systems are well-suited for permanent installation if needed. But Lynx understands that many clubs need to travel to reach the water, which is why the packages are designed to be completely portable and easy to setup. The Vision camera comes equipped with EasyAlign video alignment mode and a high-quality remote control zoom lens to make the camera alignment and adjustment process fast and easy. The package also includes a sturdy carrying case to store and transport your camera and accessories. Simply add the tripod and laptop computer and you have everything you need.

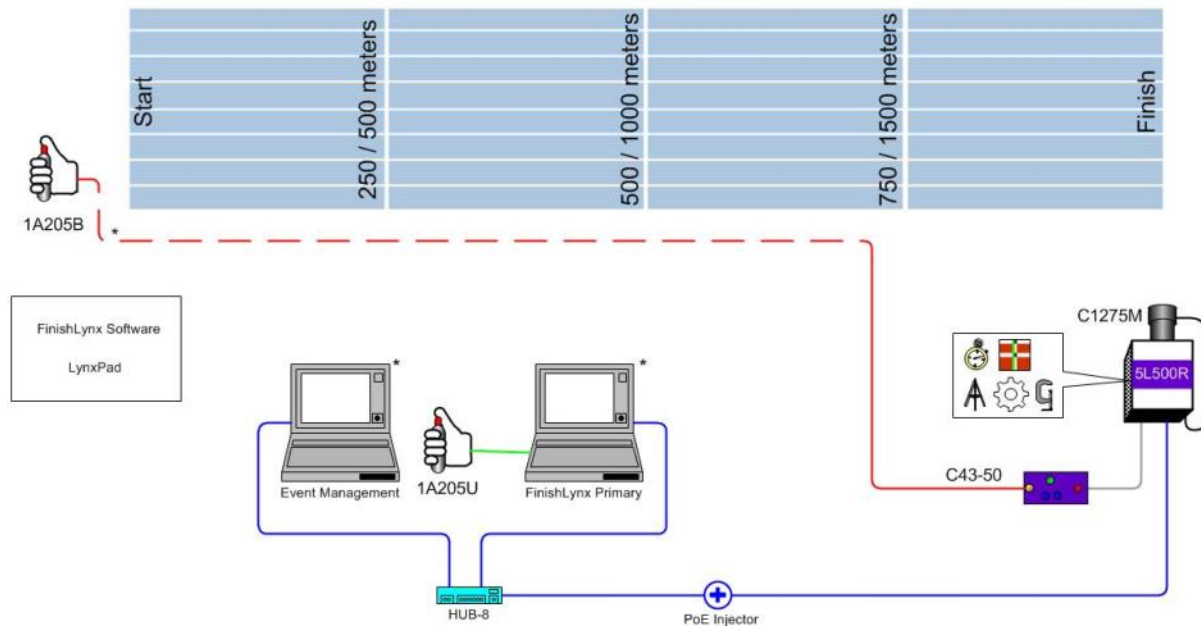
The FinishLynx timing software (right) integrates all your real-time images and results data into one, easy-to-use computer interface. The software can be used in races of any length or size, and includes features like on-screen lane assignments to help with identification and results.



The software is not only configurable for shell, team, and leader times, but can also interface with countless other components like LED displays, split timing devices, GPS-synchronization, wireless starts, and additional cameras for endless upgrade opportunities. Most importantly, the system's "building block" philosophy ensures that nothing you buy will go to waste. Should you ever decide to upgrade your system, existing components can be exchanged or upgraded with new features like cameras, software plug-ins, add-ons, or wireless accessories.



## Rowing - Canoe - Kayak – Bronze



\* Computers and wiring to start button not included in package





## SILVER PACKAGE



The Rowing and Paddling Silver Package is a mid-level solution from Lynx that contains everything you need to capture clear and accurate time-stamped finish line images. The Silver Package includes the **EtherLynx Vision PRO** photo-finish camera with Extended Zoom and a remote zoom lens. It not only captures 1,000 frames per second, but also boasts a vertical image resolution of 2,048 pixels—meaning no finish line is too wide to be covered. The Vision PRO also includes EasyAlign video alignment, an on-board level, LuxBoost low-light capture mode, and Electronic Filter Control for excellent flexibility in difficult light conditions.

The Silver Package also includes the RadioLynx wireless start system. RadioLynx is extremely popular among rowing timers because it allows an accurate start signal to be sent wirelessly to a finish line located up to **5 km** away. The Silver Package is an excellent solution for rowing, canoe, kayak, and dragon boat races. It combines a powerful timing camera, wireless start system, and everything else you need to produce fast and accurate results at any size competition.

## Components

- **Camera: EtherLynx Vision PRO**, color, timer-enabled, **1,000 fps**, extended resolution/zoom for up to **2,048** vertical pixels
  - **EasyAlign 2-D Video Alignment Mode**
  - **Internal RadioLynx**
  - **On-Board Level & Electronic Filter Control**
  - **LuxBoost Low-Light Capture Mode**
  - Remote Control 12.5-75mm C-Mount Zoom Lens
- Super Head Clamp, Geared Mounting Head, and Tripod for precision adjustment
- All-inclusive Camera with Capture Button, Ethernet Hub, and USB-to-Serial Converter
- **RadioLynx Wireless Start System - Extended Range**
- Custom carrying case
- **LynxPad** – Event management software
- **FinishLynx 32** – Multi-language\* photo-finish results software
- RadioLynx Wireless Start Plug-in

\* See website for current listing. FinishLynx available in English, Spanish, French, Arabic, German, Italian, Korean, Portuguese, Russian, Swedish, Finnish, Chinese (Simp.), Chinese (Trad.), and Japanese.

## Silver Package Features

- The Vision PRO camera includes a remote control zoom lens and offers 1,000 fps captures with 2,048 vertical pixels for clear and accurate photo-finishes on even the widest courses.
- The RadioLynx wireless start system promotes operator flexibility by allowing the start sensor to be operated wirelessly from several kilometers away.
- LuxBoost mode enhances the available light to allow for better image captures in low-light conditions.

## Silver Package Benefits

The Silver Package is a great choice for most organizations because it offers the features of a professional system at a very reasonable price. The one component that truly elevates it above the Bronze Package is the Vision PRO camera. It offers several upgrades over the standard Vision, including higher frame rates and vertical resolution, LuxBoost low-light capture mode, an on-board level, and Electronic Filter Control.

The Vision PRO not only captures more accurate results (1,000 fps), but also provides better quality photo-finish images at wide finish lines and low-light conditions. According to FISA, the ideal course width for championships and regattas “shall be *at least* 162 meters” (2005). The Vision PRO captures these widths with ease and still leaves plenty of room for variations in the camera setup location.





# The Rowing Silver Package

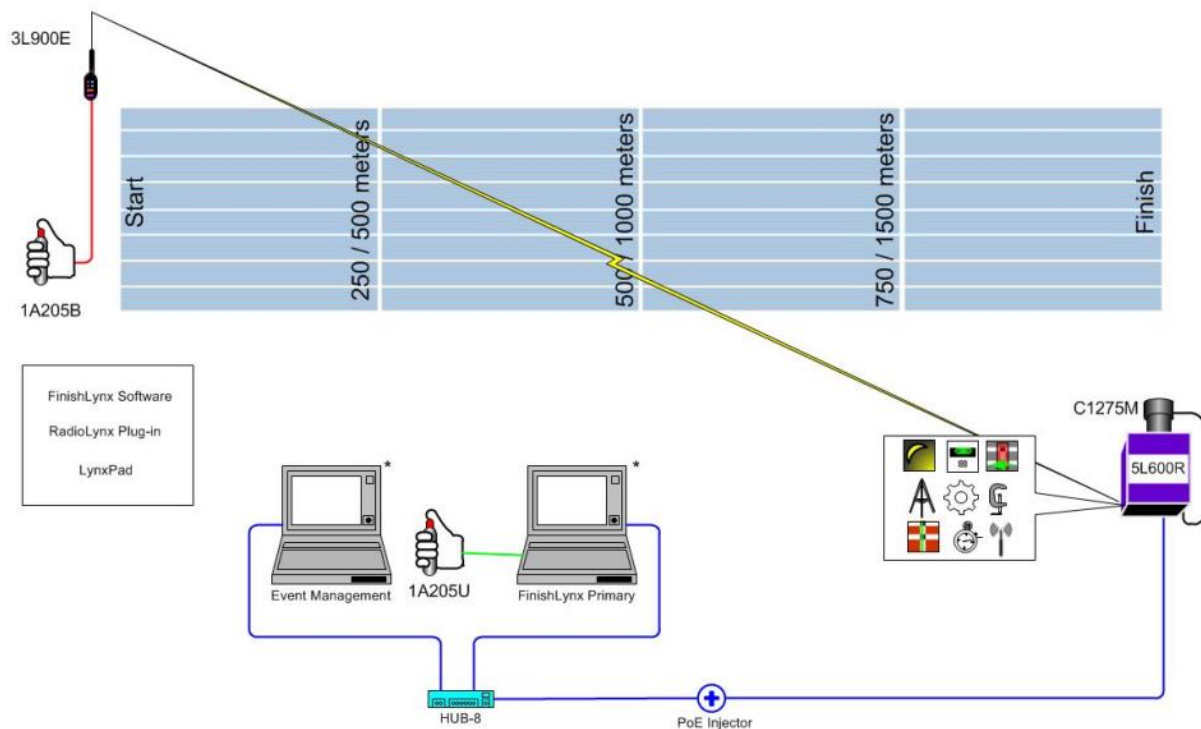
A second key addition to the Silver Package is the RadioLynx wireless start system (and the corresponding software plug-in). Just as the Vision PRO adds a huge degree of flexibility for course and event variations, RadioLynx provides more freedom with start/finish line locations and accessories. The wireless start transmitter beams an accurate, real-time signal to the Internal RadioLynx receiver located up to 5 km away at the finish line. This feature can be especially useful when the start of the event takes place on a floating pontoon. Also, because standard rowing courses are 500, 1,000, or 2,000 meters in length, the extended range RadioLynx can easily span an entire course.



In addition to the high-resolution camera and wireless start system, the Silver Package includes all the software, cables, and other features necessary to run the system *out-of-the-box*; all you need is a Windows-based computer to run FinishLynx software. Thanks to the program's open-interface design, FinishLynx is also compatible with hardware and software from a long list of third-party manufacturers, including the popular **Regatta Master** management software. The Silver Package includes a variety of powerful photo-finish features designed especially for rowing. There is also room for a number of upgrade or enhancement opportunities. As your needs change over time, you can add multiple cameras, scoreboards, split timing devices, GPS-synchronization, or higher capture speeds. The Silver Package is an excellent long-term investment for any size club.



## Rowing - Canoe - Kayak – Silver



\* Computers not included in package

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## Gold Package



The Gold Package is the most comprehensive rowing and paddling timing solution available today. Not only does this system include the high-resolution **EtherLynx Vision PRO** camera, but the advanced split timing and network components provide more options for professional data capture, display, and distribution.

This package comes with the RadioLynx wireless start system, EtherLynx Vision cameras for each split location, plus a Remote Positioner for each Vision camera. It also includes ResultTV live results display software and several FinishLynx plug-ins, all of which are seamlessly integrated for fast and error-free results.

The EtherLynx Vision split cameras contribute to sprints and head races because they provide a convenient solution for measuring individual split-times, even at long distances.

The ResultTV software allows you to send your real-time data to any network displays, and from the administration tent to the announcer or broadcaster booths. The Gold Package integrates all these components to create a photo-finish solution fit for even the most advanced rowing and paddling events. Discover why federations around the world trust FinishLynx.

## Components

- **Finish Camera: EtherLynx Vision PRO**, color, timer-enabled, **1,000** fps, **Wi-Fi** enabled, Extended Zoom for up to **2,048** vertical pixels
  - **EasyAlign** 2-D Video Alignment Mode
  - **Internal RadioLynx**
  - **On-Board Level & Electronic Filter Control**
  - **LuxBoost** Low-Light Capture Mode
  - Remote Control 12.5-75mm C-Mount Zoom Lens
  - Remote Positioner
- Super Head Clamp, Geared Mounting Head, and Tripod for precision adjustment
- All-inclusive Camera with Capture Button, and USB-to-Serial Converter
- Custom carrying case

### Advanced Timing and Network Tools

- **Split Cameras: EtherLynx Vision**, color, timer-enabled, 500 frames per second, 1,000 vertical pixels
  - **EasyAlign** 2-D Video Alignment Mode
  - Remote Control 12.5-75mm C-Mount Zoom Lens
  - Remote Positioner
- Super Head Clamp, Geared Mounting Head, and Tripod for precision adjustment
- Extended Range RadioLynx Wireless Start System
- 10/100 base-T 8 Port Switch and Button Splitter

### Custom Lynx Software and Plug-ins

- **LynxPad** – Race management software
- **ResultTV** – Data-display program for professional graphics and results output
- **FinishLynx** – Multi-language\* photo-finish software
  - RadioLynx Plug-in
  - Network COM Port (NCP) Plug-In
  - Multi-Split Plug-in

\* See Website for current listing. FinishLynx available in English, Spanish, French, Arabic, German, Italian, Korean, Portuguese (Brazil), Russian, Swedish, Finnish, Chinese (Simp.), Chinese (Trad.), and Japanese

## Gold Package Features

- EtherLynx Vision cameras equipped with Remote Positioners allow operators to capture and integrate real-time splits throughout the entire course.
- ResultTV display software allows you to send live results and race data to compatible video boards.
- The open-interface design allows seamless integration with third-party components like starting lights & displays.





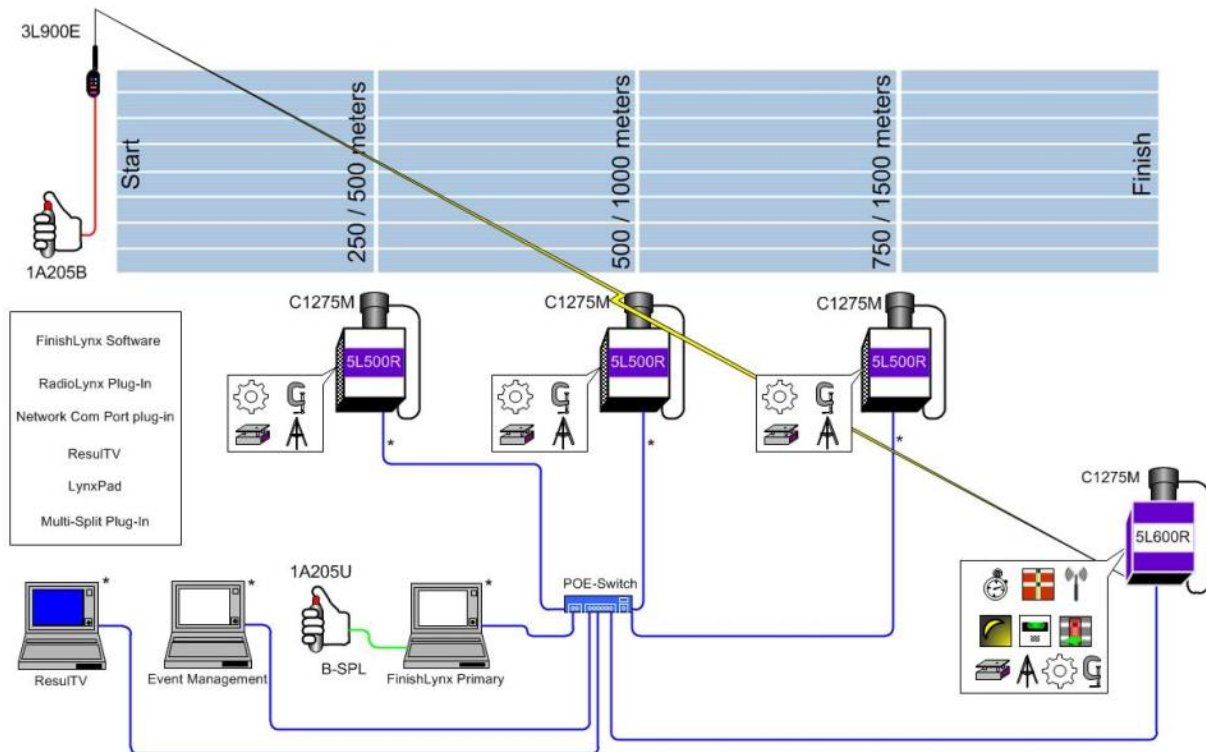
# The Rowing Gold Package

The EtherLynx Vision cameras can be placed at intermediate locations throughout the course for precise, real-time splits. In addition, each camera comes equipped with a Remote Positioner making the placement and alignment of each camera easier than ever. The data is compatible with all types of scoreboard displays.

These advanced timing and network components provide an unprecedented amount of control and mobility. Operators will enjoy the Vision PRO color camera and RadioLynx wireless start. The package also includes the Multi-Split software plug-in to manage the split cameras and Network COM Port (NCP) plug-in for intra-network communication. All the components are compatible with the FinishLynx timing software for seamless integration across the photo-finish results network. Without question, the Rowing and Paddling Gold Package is the most advanced and complete solution available today.



## Rowing - Canoe - Kayak – Gold



\* Computers and wiring to split points not included in package

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# Events & Venues

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- FISA World Rowing Masters Regatta
- US Rowing Olympic Trials
- Head of the Charles Regatta
- ICF Canoe World Championships
- European Dragon Boat Championships
- Lake Sidney Lanier Olympic Center
- Regata Storica di Venezia
- Royal St. John's Regatta
- ICF World Wildwater Championships
- Danube Regatta - Hungary
- South Africa National Rowing Championships
- Australian Dragon Boat Federation
- **Lake Banook Canoe/Kayak Course** – Site of the ICF Flatwater Racing World Championships and ICF Canoe Sprint World Championships



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