TimeTronics

Overview brochure
Regatta

2020v2

1. Photofinish for Canoe/Kayak (≤1km) & Rowing (≤2km)

Introducing to you our 2020 new generation photo finish camera "Argus"!

We can offer you this **state-of-the-art camera** as a complete professional photo finish configuration with mobile cable reels or a fixed underground cabling solution. Our "Argus Selection Chart" (added to every TimeTronics photo finish quotation) will give you an overview of the **predefined setup.** We deliver your system with a standard C-mount 8-48mm f1.2 lens and standard camera head and tripod mounting, or further defined to your needs.

2. Argus photo finish software advantages

New user interface	High light sensitivity
Completely new user interface which allows you to **navigate easily** through the different races and desired parameter settings.	The Argus photo finish camera produces **photo-quality pictures** at a high recording speed. Thanks to its sensor and the gamma control, you will enjoy a higher **light sensitivity** than ever before!

Continuous recording *(Pro)*

With our Pro version, literally everything will be recorded with your Argus photo finish camera in the sophisticated **Continuous Recording** feature.

Motion detection	High recording speed
Virtual photocells which can be set up to **two detection zones** at the finish line in an advanced mode (height, width and contrast).	A recording speed of 2.000 standard and **up to 5.000 lines/second**. High quality pictures (fast recording) in darker light conditions.

Image eye	Ethernet connection
Every detail is important for a photo finish result picture. With our image eye you can **easily zoom** in on the image in **2 zones** with the magnifier.	The **Ethernet connection** between the Argus photo finish camera and operating computer allows you to place the computer at a larger distance of the camera.

Video alignment system	All starts recorded
A **live video view** of the finish line will allow you to perfectly align the photo finish camera in front of the finish line fast and easy. **Three magnification zones** are shown. Soft movement of the finish line is possible in restricted area.	If the starter of the race gives you (unintentional) multiple start pulses, you will be able to select the **correct start pulse**.

Multi-language
We have the possibility to deliver you our Argus photo finish software in a **language** and/or **character set** of your choice. If we do not already have your language implemented, we can deliver you translation files. *Contact us to check your specific language requirements.*

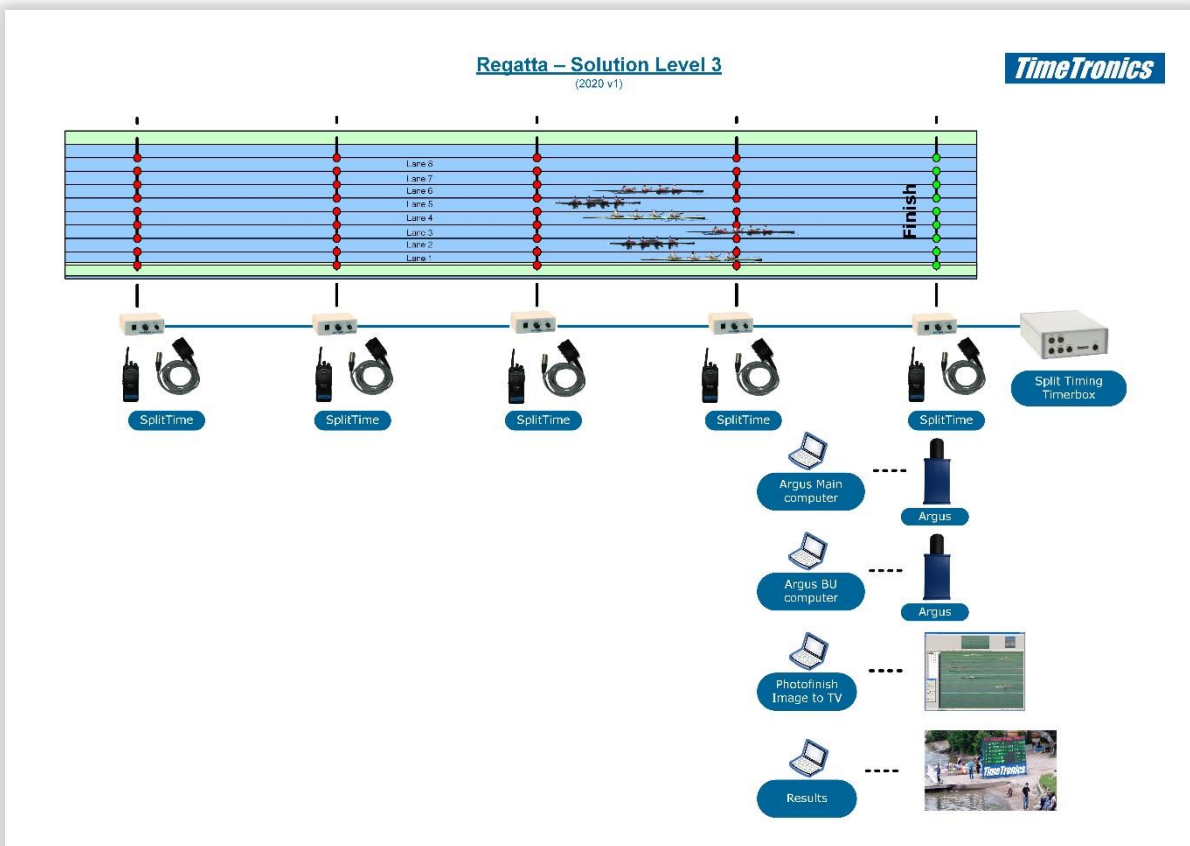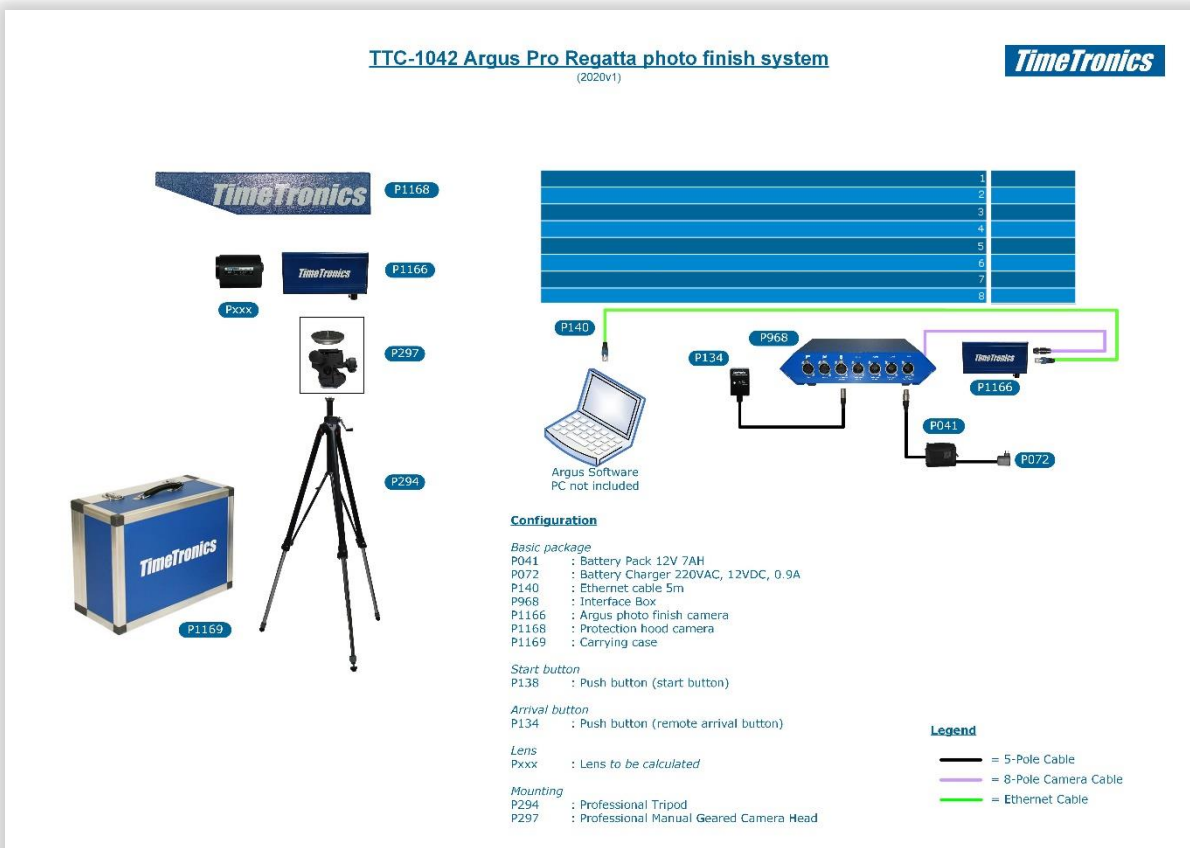| Multi-sport: sport specific parameter settings |
|---|
| All sports require different parameters. We have implemented already multiple sports (Regatta, Athletics, Cycling, Speed Skating, …) in our Argus photo finish software.

Contact us to check your specific sport requirements. |

3. Specifications of the Argus photo finish system

Specifications	Argus Pro version
Sensor	2D
Camera connection	Ethernet (Distance virtually unlimited)
Max. vertical pixels	1.280 pixels
Max. recording speed	3.000 lines/second, upgradable to 5.000 lines/second
Number of colors/pixel	16 million
Synchronous time	1 microseconds time base
Aligning camera	Instant video image of finish line (Preview)
Optics (lens)	C-mount
Lens control	Motorized
Camera power	POE (Power-Over-Ethernet) + battery powered
All start signals registered	Yes
Presentation mode	Yes
Instant readout of results	Yes
Continuous recording	Yes
Dual camera integration (*①)	Yes
Database integration (*②)	Yes

① Dual camera: Second camera package not included in standard Argus photo finish configuration
② Database: Database software not included in standard Argus photo finish configuration

4. Standard photo finish configuration setup

TTC-1042 Argus Pro Regatta photo finish system
(2020v1)

Configuration

Basic package
P041   : Battery Pack 12V 7AH
P072   : Battery Charger 220VAC, 12VDC, 0.9A
P140   : Ethernet cable 5m
P968   : Interface Box
P1166   : Argus photo finish camera
P1168   : Protection hood camera
P1169   : Carrying case

Start button
P138   : Push button (start button)

Arrival button
P134   : Push button (remote arrival button)

Lens
Pxxx   : Lens *to be calculated*

Mounting
P294   : Professional Tripod
P297   : Professional Manual Geared Camera Head

Legend
— = 5-Pole Cable
— = 8-Pole Camera Cable
— = Ethernet Cable

Regatta – Solution Level 3
(2020 v1)

5. Split timing for Canoe/Kayak (≤1km) & Rowing (≤2km)

The timing system for Regatta applications enables the operator to electronically register the starting signal, interval times (split times) and final times (results).

These electronic signals are manually generated via one simple push button at each measurement location. All the push buttons are linked to intercom boxes transmitting the respective signals to an electronic timer box (in the finish zone) by means of an extended 5 wire cable (1 km for canoe/ kayak or 2 km for rowing).

The operators at the finish line uses a software program in which the times from the electronic box are gathered rapidly and automatically. The operators at the intermediate locations inform the operator at the finish line of the chronological sequence of passing. This is done via an walkie-talkie communication system. That way, times can be identified with the boats in question. This software program is designed for and is perfectly capable of timing simultaneously held races.
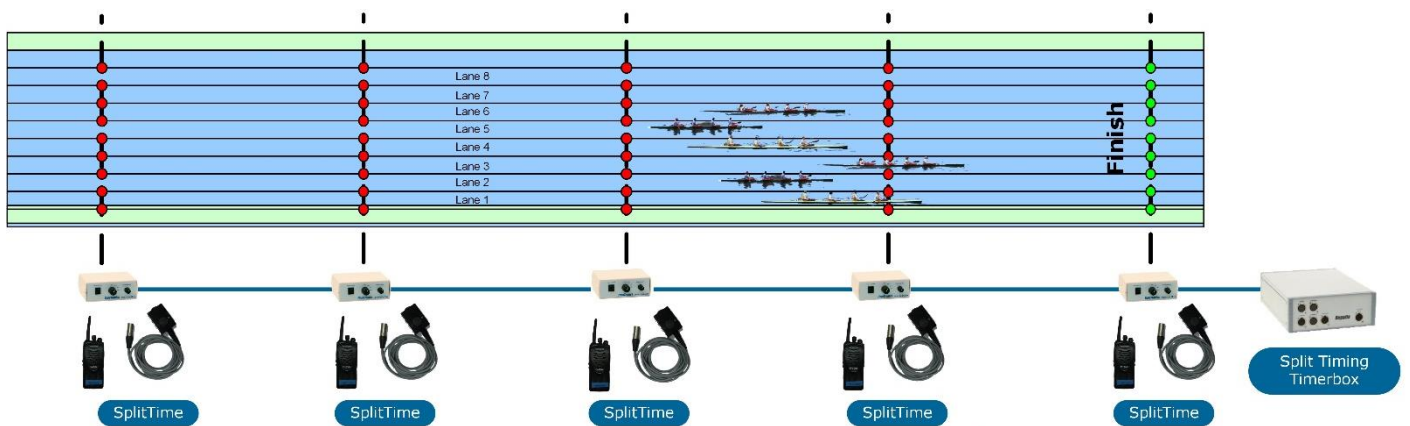
A few examples of the timing software:

With the Race Information and Control Window it is possible to:

- Enter information before race (race #, race time, competitors,…)
- Enter and read information during race (lane order at 25%, times at 75%,…)
- Enter, read , edit and export information after the race.
- Send the participant and result lists to scoreboards or TV.
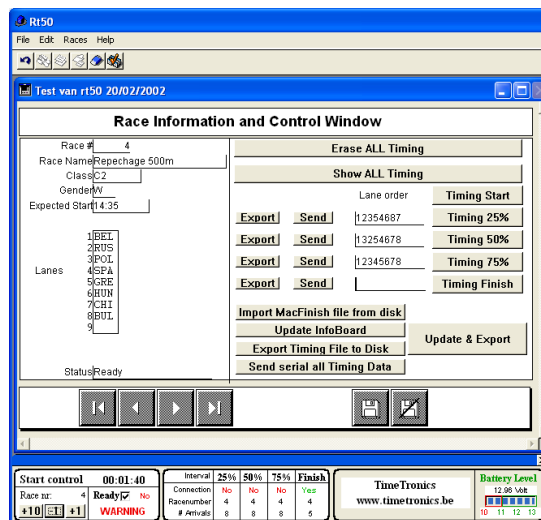
The Chrono window is the software operator's control station. With this control box, the operator can:

- control the start of multiple races (the current race = 5, time is 1:40).
- get an alarm (audible beep + WARNING in red color) when you plan to start a race that is already running.
- verify that the electrical connection with the start is ok ("Yes" in green).
- follow the timing and progress of multiple simultaneous races (race 5 has reached the 50% = half race distance, where already 7 times were recorded, at the finish point already 6 times of race 4 were recorded).
- see if all interval push buttons are connected (plugged in and cable ok?). In the above example only at the start, the 50% point and Finish line are timing buttons connected, showing "Yes" in green , the other show "No".
- display and verify the battery condition.

At the end of the race, with finish data from the Argus or from the finish line pushbutton, it is possible to display, print and send (export) a list of the split times of the different timing positions (25%, 50%, 75%, finish).

Thanks to the open-architecture of the system, the photo-finish system can be easily integrated. To realize this, the interval system needs to be combined with the Argus timing and photo finish system. The **official finish results** are now read from the **Argus photo finish** system (running on a separate computer) and sent to the Split timing program. The Split timing system will supply the split times and is also used as a backup timing system for the finish line.

TimerBox for Split Timing

Intercom box with pushbutton and radio communication