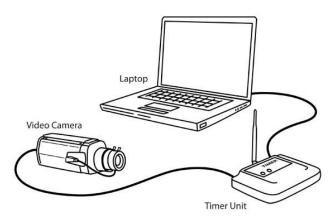


## Overview of the FlashTiming FT-FAT60 System

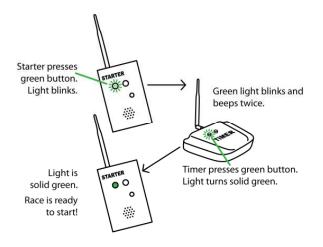
FlashTiming's *FT-FAT* is the first affordable innovation in fully automated timing systems in 25 years. It's radio controlled, so there's no need to wire the starter or point a timing device at the starter's pistol. It combines accurate, reliable starts with built-in communications between the starting and timing officials. Here's how it works:

The FlashTiming System includes two radiolinked units, a video camera and software that captures and plays back the video on a laptop computer. In a typical setup, the video camera is located at the finish line and connected to the laptop through the *FT-FAT* timer unit via USB2.0. The second *FT-FAT* radio is located next to the starter and should be positioned within 2-4 feet of the raised starting pistol.

It is essential that the starter communicates with the timing officials that the race is about to start. The timing officials also



need to acknowledge that they are ready to time the race. FT-FAT makes this easy.



The starter presses the green ready button on the FT-FAT unit, which causes the green light to blink and sends an "Are you ready?" signal to the timer. The lights and sounds from the timer unit alert the timing official that the starter is ready. The timing official responds by pressing either the green ready button or the red stop button. The green button sends an "I'm ready" signal back to the starter, which turns the blinking green light to a solid green light, indicating the race is ready to start. If the timer presses the stop button, an "I'm not ready" signal is sent back to the starter and the starter unit will flash the red light and sound the busy signal.

Once the starter receives the "I'm ready" signal, the race may start. The sound of the gun blast starts the race clock. There is no special starting gun or ammunition required to start the clock: a .22 caliber starting pistol is sufficient.

*FlashTiming, LLC* PO Box 657 North Plains, OR 97133 http://flashtiming.com Phone: 503.781.3742 Fax: 503.647.2090 The video camera records the runners as they cross the finish line. The *FT-FAT* timer unit encodes the race time on each frame of the video and the video and times are displayed on the laptop. The timing official starts capturing the video when the first runner approaches the finish line. Only the relevant video is captured and stored on the computer's hard drive.

The video is available for review at the end of each race. The review official advances the video to the frame that shows the runner's torso on or over the finish line to determine the athlete's time.

FlashTiming can be configured to exchange data with most popular meet management applications, including Hy-Tek Meet Manager, Sydex's Track Gold, Easy Meet Manager, TrackMate, Apple Raceberry Jam and RaceTab. With this feature, FlashTiming displays the list of seeded athletes in the event. The review official clicks on the runner's name or lane in the list and the time is recorded automatically. When all runners are recorded, the results can be transferred to your meet management application with a click of a button.

You can set up your FlashTiming System to work with one, two or three computers. One computer is sufficient when you have adequate time between races for one person to review the video and record the times. If you're using one of the supported meet management programs, then we recommend two or three computers networked together. With three computers, one computer is dedicated to capturing the video, one for playback and review and one for scoring with the meet management application. As soon as a race is recorded and saved on the capture computer, the video file appears on a list of captured videos on the review computer. The capture computer is free to record the next race while the review official reviews the video on the playback computer. The operator of the meet management application spends most of the time entering results from the field events into the meet management application. The finish line judge notifies the meet management operator when all times from a race are recorded and saved. The meet management operator loads the times into the meet management application with one mouse click and the race is scored.

These timing computers can be located anywhere around the track. The one requirement is that the radio units are able to communicate. Line of sight is best, but the radio units are capable of finding a path around some obstructions. In most setups, the computers are located either at the base of the video camera or in a press box. In a typical high school setting, where the press box is on top of the stadium and the finish line is next to the stands, 200-300ft of cable is needed to connect the video camera to the computer in the press box.

Our complete FlashTiming System comes with two *FT-FAT60* radio units, FlashTiming software, video camera, camera stand and starter stand. Our camera is a high-resolution NTSC color video camera. It is mounted on our camera stand that telescopes more than 13 feet above the finish line. The stand is heavily weighted at the bottom for stability and comes with leveling feet and a built in level for easy positioning. It is easily transported through doorways and will clear an eight foot ceiling when the pole is collapsed. You can mount multiple cameras on the pole for backup video.

Our starter stand elevates the starter 2 feet above the runners and comes with a mount for the FT-FAT starter unit and a wireless microphone. The wireless microphone is ideal for drawing the crowd's attention to the start of the race.

Our company was founded by a high school track coach who also has over 30 years experience in product development engineering. We developed the FlashTiming System after running meets at our high school and seeing a need for a high quality, affordable system. All our products were conceived, prototyped, tested and refined through the timing needs at our track.

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