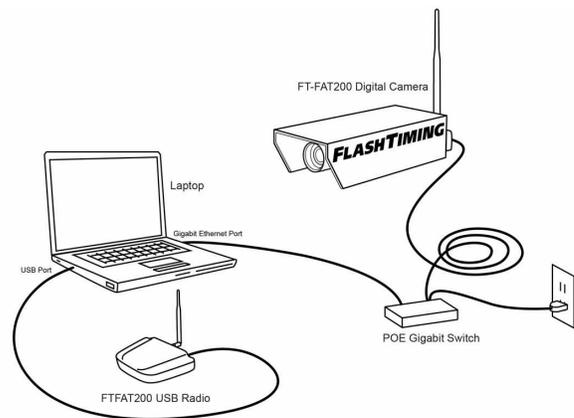




## Overview of the FlashTiming **FT-FAT200** System

FlashTiming **FT-FAT200** is the first affordable fully automated timing systems for collegian track that meets NCAA FAT requirement. The **FT-FAT200** is 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 **FT-FAT** system includes three radio-linked 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 is connected to the laptop, which displays live feed from the video camera. The video camera connects directly to the laptop with a Cat6E Ethernet cable via a 1 Gigabit (1000Base-T) Ethernet port. The video camera enclosure contains a radio unit and a separate radio unit connects to the computer via a USB port



The third **FT-FAT** radio is located next to the starter and should be positioned within 2-4 feet of the raised starting pistol. Before the start of the race, it's essential that the starter communicates with the timing officials that the race is about to start and the timing officials 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 timing official stationed at the computer. A message on the computer alerts the timing official that the starter is ready. The timing official acknowledges the signal by pressing either the ready button or the stop button on the computer screen. The ready button sends an "I'm ready" signal back to the starter. This turns the blinking green light on the starter unit 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.

The race times are encoded on each frame of the video and these times are displayed on the live feed video on the laptop. The FlashTiming operator starts capturing the video to the hard drive when the first runner approaches the finish line.

The video camera records each runner as they cross the finish line. Each frame captured is encoded with the race time. The operator stops capturing when the last runner crosses the line and the captured video is stored on a laptop. Only the relevant video is captured and stored on the computer's hard drive.

The video is reviewed by a finish line judge at the end of each race. The judge 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, Meet Pro, 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 video camera connects to the computer via a 1Gigabit Ethernet port and requires CAT6E or better network cable.

Our complete FlashTiming System comes with a **FT-FAT200** starter radio unit, USB radio unit, digital camera, FlashTiming software, camera stand and starter stand. Our camera is a high-resolution digital 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.