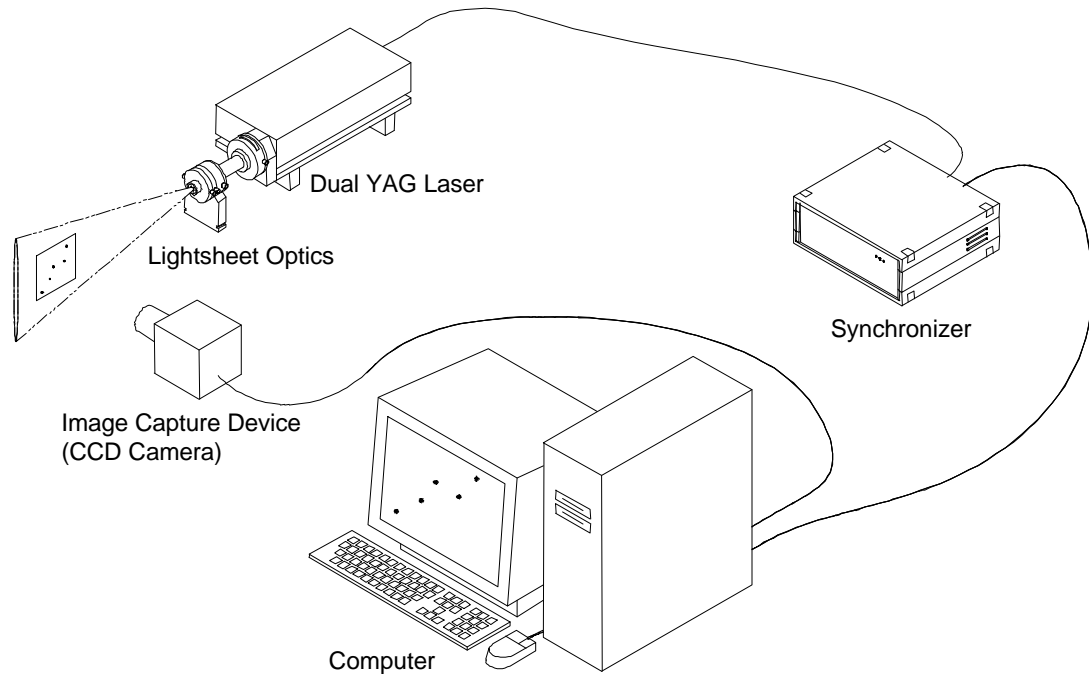


## System Overview

This section provides an overview of TSI's Particle Image Velocimetry (LDV) System. Before proceeding, read this section to get familiar with your system.

TSI's PIV system is designed to help you to make flow field measurements in a wide range of applications. Its modular design allows you to custom-design a system to meet a range of measurement needs tailored to your application. Figure 1 shows a PIV system with its main components.

**Note:** *In this manual we include only those instructions that are specific to the components of your system. Table 1 lists components that may not be part of your PIV system.*



**Figure 1**  
Components of the PIV System

## System Overview

Table 1 gives a brief functional description of each component.

**Table 1**  
Main Components of the PIV System

<b>Analysis</b> <input type="checkbox"/> INSIGHT Software <input type="checkbox"/> Computer and all the peripherals installed in the computer <b>Options</b> <input type="checkbox"/> Frame Grabber	Analyzes PIV images and computes flow field parameters. The installation of analysis includes all the peripherals installed in the computer.
<b>Synchronizer</b> <input type="checkbox"/> Synchronizer	The timing electronics for all of the components in a PIV imaging system. Controls the laser, camera, and image shifter so that each component operates in the correct sequence.
<b>Laser</b> <input type="checkbox"/> Nd:YAG Lasers <input type="checkbox"/> Lightsheet Optics <input type="checkbox"/> Breadboard	Provides the illumination of the flow field.

*continued*

**Table 1**  
Main Components of the PIV System (*continued*)

<b>C: Image Capture</b> <input type="checkbox"/> Video PIV Systems <input type="checkbox"/> Film Capture	Includes the camera and the component used to digitize the image. With video cameras a frame grabber is used to digitize the image. With film-based systems a slide scanner or is used to digitize the film.
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