



Build your own:
Home golf swing analysis system

Mediavention Inc.
How to golf guide series



Building your own golf swing analysis system: Simply

Today golfers know the value of computer aided golf swing analysis systems (GSAS) in improving their swing. If they haven't been taught with one they have seen it on The Golf Channel.

The myth about GSASs is, it's a golf instructor's business tool, costing a huge amount of money and requiring a great deal of technical know-how to operate. To have a system at home is a luxury of the very rich.

In reality, you probably already have 90% of a GSAS at home. In the last five years computers in people's homes are powerful enough to handle the demands of video processing. Running those graphic intensive video games actually requires more computing power than video analysis.

The basic parts of a GSAS are a video camera, computer and software. Now cameras and computers come in all shapes and sizes and fit any budget. We will assume you already have access to a Microsoft Windows based computer either at home or at the office.

Building a GSAS is really simple and shouldn't be feared as a great technical undertaking. Basically, you put the CD in, let the software install itself and begin using it, just like any other software or game. Even getting video from camera to computer has never been easier.

The parts and putting it together

The Software

MotionCoach @Home Pro Tour Trainer costs \$79.95 and gives you all the tools required to capture and manage videos, analyze the motion, use built-in lessons, track and calculate your handicap, and analyze your swing speed.

MotionCoach works with any camera that supports Microsoft's industry standard DirectX interface, which means just about every computer-video device ever made.

MotionCoach has been created to be a swing development system you will come back and use time and again. This software is more than a single time, point swing analysis system!

To install MotionCoach you simply put in the CD and install the software. It comes with video tutorials and sample pro swings. Total install time of 8 minutes, depending on CD speed.

The Camera

Today there are many options to get video into your computer. The best way is to use what you already own. Below is a break down of the commonly available video capture systems.

Digital Video camera (DV)

With this type of camera you have the option of either capturing video to tape, with a later transfer to the computer, or to capture directly from camera to computer. If you already have a DV camera you only need to an IEEE1394 (AKA Firewire, iLink) port to your computer. If your computer doesn't have one it can be added for a cost of \$40.00 for a desktop system or \$55.00 for notebook.

To connect the 1394 card to a desktop computer you must turn off and open the computer, find an empty slot, plug the card in, and then restart the computer. Windows will see the new card and tell you how to install the drivers. This takes about 15 minutes.

For a notebook computer, you simply plug the CreditCard sized device in the slot on the computer and let windows do the rest. For XP the drivers should already be in the computer, they only need to be started. This takes about 2 minutes.

Typical Total System Cost: (\$139.95)

Standard or Analog Camcorder (Also VCRs)

With this type of camera you have the option of capturing video to tape for later transfer to the computer, or hooking directly from camera to computer.

There are a couple of different solutions for computer "hook-ups". For desktop computers you can add a TV card, (\$50 to \$100.00). These cards give you 120 channel cable ready TV and S-Video and RCA jack input ports.

If you don't want to open the computer box or you have a notebook computer, the best option is a USB converter. In this category there is two types, powered and un-powered. The Powered units give better quality because they are doing video compression and storage of the video. The picture quality of the un-powered video converters is 320x240 pixels; the powered versions can go up to 640x480 pixels. Powered USB converter range in price from \$70.00 to \$150.00, un-powered converters range from \$30.00 to \$70.00.

To connect the USB converters, you simply plug it in and Windows will tell you what CD to put in the computer to install the camera drivers. This takes about 5 minutes.

To connect the TVCard is a little more involved. You must turn off and open the computer, find an empty slot, plug the card in, then restart the computer. Windows will see the new card and tell how to install the drivers. This takes about 15 minutes.

Typical system cost: (\$129.95)



WebCams

With this type of camera you can only transfer directly to the computer, they don't have any tape storage capacity. So where you are swinging, the computer must be there too.

Webcams are little devices that plug into the USB port and stream video to the computer. They provide excellent quality video and all the controls such as exposure and brightness/contrast tuning. There are two technologies of USB supported by Webcams: Standard USB and High-Speed (AKA USB 2.0) cameras. The high-speed cameras are more difficult to find at the moment and range in price from \$70.00 to \$150.00. The USB standard cameras range in price from \$25.00 to \$90.00. Some of these cameras even include microphones, so they become full video camera alternates.

To connect these to your computer, you simply plug it in and Windows will tell you what CD to put in to install the camera drivers. This takes about 5 minutes.

Total cost of this combination is \$129.95

Final word

Building your home swing analysis should not take more than an afternoon. Once ready you can begin a lifetime of improvement to your golf game.

Tour players work on their swings in the off-season; with a home swing analysis system you can too. The only remaining problem is where are you going to park the car, now the golf lab in is the garage?

If you have any questions about swing analysis systems, contact me, we can work out a solution.

Article written by:
James Alexander
james.alexander@mediaventure.com