



K VEST[®]

human motion
LEARNING SYSTEMS

K-VEST 3D

OPERATING MANUAL



Welcome to K-VEST!

Congratulations on your K-VEST purchase. We are excited that you have joined the K-VEST family! To get you started, we've created this concise guide, which covers the basics of setting up and operating your system.

This guide details the following topics:

1. Software Installation
2. Sensor Configuration
3. Software Registration
4. About the Equipment
5. Setting Up a K-VEST Lesson
6. Calibration
7. Capturing a Swing
8. Biofeedback Training
9. Loading, Customizing, and Saving Programs and Activities
10. How to Train Using a Program
11. Transferring a Program From One K-VEST/K-PLAYER to Another K-VEST/K-PLAYER
12. Quick Troubleshooting Guide
13. Additional Information

This document is a complement to K-CAMPUS. For detailed instructions and how-to videos on the topics in this guide and other topics, we highly recommend that you visit K-CAMPUS. We highlight the step-by-step video-based course on K-CAMPUS, which takes you from opening the box through capturing a swing, and you'll find useful videos to help you on a range of topics.

You should have already received your log-in credentials for K-CAMPUS, but if not, please contact us. You can reach us Monday–Friday, 8 a.m.–4 p.m. PDT (11 a.m.–7 p.m. EDT) via email at customer@k-vest.com. Additional resources and information are also available at the end of this pamphlet.

If you have any questions along the way, our technical team is here to help. You can also contact your K-VEST 3D consultant.

Software Installation



After you've unpacked the system (see enclosed Packing List document), the first step in getting started is to install the K-VEST software on your computer.

The K-VEST software is designed to work on a Windows PC. You can also install it on certain Mac computers under specific conditions (see more below). The minimum computer requirements for the K-VEST software are:

- Windows PC (Win 10, 8, 7, Vista) w/ administrative privileges
- Intel Core i5 or i7 processor, 2GHz or higher (or AMD equivalent)
- 4GB RAM
- 60GB hard drive storage
- One USB 2.0 (or 3.0) port
- Display with minimum resolution of 1024x768 or higher
- Dedicated video card recommended (NVIDIA/AMD manufacturer)

It's possible to install the K-VEST on Apple MacBook Pro laptops and desktops using the Boot Camp software only (<https://www.apple.com/support/bootcamp/>). K-VEST is not supported at this time on iPads or Apple devices not running Boot Camp. For more information about Boot Camp, please contact K-VEST Technical Support.

How to Install the Software

You can install the software on your own. If you have any problems or do not feel confident installing the software by yourself, please contact Technical Support.



USB flash drive w/ K-VEST software

Step-by-step instructions for installing software:

1. Remove the USB flash drive from the carrying case.
2. Insert the USB flash drive into a USB port on your computer.
3. Double-click to open the **KVEST.7.##.##.SetupWiz.exe** file.
4. Follow the on-screen instructions to install the software.
5. You may be prompted to install various sub-components, such as **AviSynth** or **Microsoft DirectX**. If prompted, install these programs using the "default" options.
6. Complete the K-VEST software installer.
7. We also recommend you install the activity videos. On the USB flash drive, double-click to open the **K-VEST and K-PLAYER Video Library.1.##.Setup.msi** and follow the on-screen instructions to install.
8. Congratulations! You have successfully installed your software!

Before you can use your K-VEST, you need to configure the sensors to work with your computer. To do this, please contact K-VEST Technical Support. You can reach us Monday–Friday, 8 a.m.–4 p.m. PDT (11 a.m.–7 p.m. EDT) via email at customer@k-vest.com. (See "Sensor Configuration" section below.)

You can schedule your initial setup installation by filling in the form at:

<https://www.k-vest.com/tech-support>.

Sensor Configuration

As mentioned, before your K-VEST sensors will work with the software, they must be configured to work with your computer. This process involves pairing the Bluetooth sensors to your computer and updating some configuration files within the software (so it can find the sensors).

Please contact Technical Support and have them perform this initial setup. Since the process is a bit technically challenging, we want to ensure your sensors are properly configured for your system to ensure ease of use.

The initial setup call with Tech Support takes approximately 30 to 45 minutes, on average. You will find a business card in the K-VEST box with contact information for Support, along with your "Receiver Serial Number." You will need this Receiver Serial Number during the setup and registration process.

Remember, you can schedule your initial setup installation by filling in the form at: <https://www.k-vest.com/tech-support>, or by reaching out to us via email at customer@k-vest.com.

Software Registration

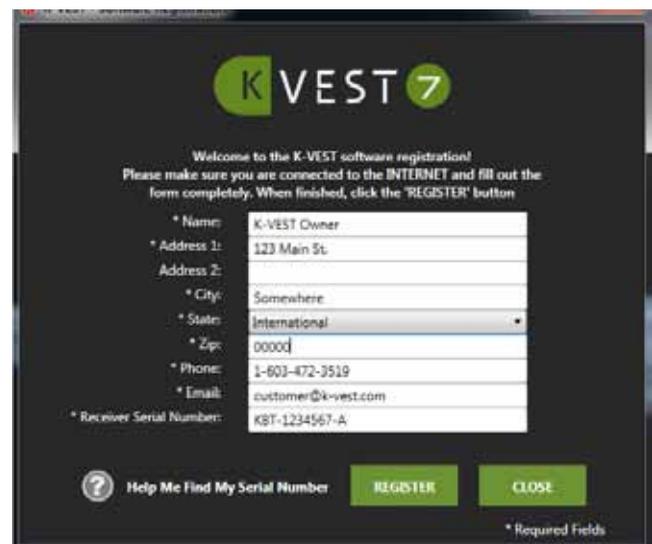
Once you have spoken with a K-VEST Technical Support representative to pair your sensors with your software, you need to register the software. You can ask Technical Support to help you with this process on your call. To register, have the Receiver Serial Number handy. This is on the USB receiver that comes with your system or on the business card that accompanies the system.

The K-VEST software license allows for the software to be installed on two computers. It is important to emphasize that in order for the sensors to work on additional computers, you must purchase a unique USB Bluetooth receiver for each computer that you wish to install K-VEST software on. **Remember:** You cannot share one USB receiver between multiple computers; the sensors will not work properly.

For assistance with setting up sensors, registration, or installation on a new computer, please contact Support.

How to Register the Software

You can definitely register your software yourself. When you open the software for the first time, you will be prompted to register.



The screenshot shows the K-VEST software registration window. At the top, the K-VEST logo is displayed. Below it, a welcome message reads: "Welcome to the K-VEST software registration! Please make sure you are connected to the INTERNET and fill out the form completely. When finished, click the 'REGISTER' button." The form contains several input fields: Name (K-VEST Owner), Address 1 (123 Main St), Address 2, City (Somewhere), State (International), Zip (00000), Phone (1-803-472-3519), Email (customer@k-vest.com), and Receiver Serial Number (KST-1234567-A). A question mark icon is located at the bottom left, with the text "Help Me Find My Serial Number" next to it. At the bottom right, there are "REGISTER" and "CLOSE" buttons. A small asterisk and the text "* Required Fields" are visible at the bottom right corner of the form area.

To register, fill out the registration form with your contact details. In the last box, for **Receiver Serial Number**, please provide the serial number on the USB receiver. For help finding this number, click the question mark icon "?" on the registration form in the software, or contact our Technical Support team.

If you don't register your software when you first open it, you can still use it. In fact, you will be able to launch the software a total of 10 times before registration becomes mandatory.

About Your Equipment

About the Sensors



K-SENSORS are built for tracking at a rate of 200 times per second. They are highly sophisticated pieces of equipment.

The K-VEST sensors should come partially charged. We recommend fully charging them before use.

Battery life on the K-SENSORS is approximately 5–6 hours on a full charge. You will know when the sensor battery life is low because the light on the lower portion of the sensor will turn red.

The sensors charge quickly; if the battery is drained down completely, it takes approximately 30 minutes to charge the sensor from 0–80%. Sensors can be left charging overnight or for extended periods of time, as each sensor has overcharge circuit protection and cannot be damaged by excessive charging.



In addition to providing a safe enclosure for transporting your system, the case doubles as the charging station for the K-VEST sensors.



We recommend you use the K-VEST carrying case as a charging station for your sensors.



When charging, you can leave your K-VEST sensors inside their respective garments and charge them by plugging them into the cables using the hole at the bottom of each garment pocket.



Or, you can charge them by removing the sensors from the garments and placing them in the foam holding slots inside the charging case.



Once the sensors are plugged into the charging cables, plug the charging cables directly into a wall outlet using the AC adapter.

You can also remove the AC adapter from the end of the charging cables and use the USB cable to plug it directly into your computer.

If a sensor will not turn on, please contact Technical Support. Never open the K-SENSOR enclosure yourself, as it can damage the sensor and will void the warranty.

How to charge the sensors

1. Plug charger AC adapter into an outlet.
2. Plug sensors into USB cables attached to AC adapter.
3. Charge sensors. (**Reminder:** It takes approximately 30 minutes to charge the sensor from 0–80%.)

How to match the sensors to the garments

We've designed an easy way to identify which sensor goes inside which garment pocket. All you do is match the dots on the garment pocket to the LED light dots on the right-hand side of each sensor.

LED Lights Key

(**Reminder:** LED lights only illuminate for 60 seconds after the sensor is first turned on. LED lights auto shut off after 60 seconds to conserve battery life.)

- 1 light = upper body
- 2 lights = pelvis
- 3 lights = hand
- 4 lights = lead upper arm

To see the dots on a sensor, turn it on.



Upper body garment & sensor



Pelvis garment & sensor



Hand sensor attached to glove with red clip
(glove not included)



Lead upper arm garment & sensor

When turned on, the LED light dots will stay illuminated for 60 seconds and then turn off to conserve battery life.

What the lights at the bottom of each sensor mean

At the bottom of each sensor, you will see an LED light. When the sensors are turned on, these lights change colors to provide information about the sensors.



Green = plugged in and charging (sensor turned on or off)

White = turned on and fully charged, not connected to system

Blue = turned on, connected

Red = Low battery — time to charge

A useful hint: When connecting a sensor to the software, you'll know the sensor has found the software because the light at the bottom of the sensor changes color from white to **blue**.

About the Garment

The garments are made of ballistic nylon, neoprene, and other delicate materials.

Cleaning the Garments

We recommend hand-washing the garments using warm water and a mild detergent. If you use a washing machine, wash with cold water only on the "delicate" setting. Always air-dry the garments; never use an electric dryer on the K-VEST garments.

The K-VEST garments are designed to put on easily and quickly. Once you have the sensors configured to work with your computer and charged, remember to match each sensor to a specific garment with the handy LED lights key.

LED Lights Key

(Please note that LEDs auto shut off after 60 seconds to conserve battery life.)

1 light = upper body

2 lights = pelvis

3 lights = hand

4 lights = upper arm

Now it is time to put on the garments. To learn how to do this, we highly recommend that you watch the "Getting Started" course on K-CAMPUS, as it is very important for optimal performance.

However, if you are in a place where you cannot access the courses, or if you just need a few reminders, we have included some basic information here to help you.

Putting on the Garments



Putting on the upper body garment

Place the upper body garment on the player so the upper body sensor sits comfortably between the shoulder blades. The top of the sensor should be in line with the top of the shoulder

blades. Be careful to adjust the straps of the garment so the sensor sits nicely. The upper body garment can be put on too tightly as well as too loosely.



Putting on the pelvis garment

The pelvis garment should be worn just below the player's regular belt buckle. When positioned properly, the pelvis sensor should sit on top of the sacrum (bone at the lower end of the spinal column).

Placing the pelvis belt underneath the player's regular belt prevents the pelvis sensor from "riding up" during a lesson.

Note: Be very careful with slippery skirt, shorts, and pants fabrics, as the K-VEST pelvis garment may slide and need frequent adjusting.

Also, if the shirt of the player is untucked, please make sure to attach the pelvis garment under the shirt against the pants to minimize sensor movement.



Putting on the lead arm garment

Place the armband for the lead arm garment around the player's lead upper arm, just above the elbow joint. Position the sensor pocket on the armband so it faces parallel along the target line during swing capture (toward the target).

Putting on the hand sensor / hand clip

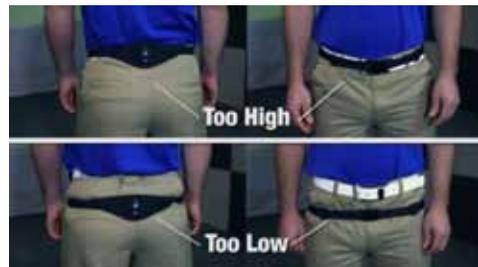
The hand/glove sensor should be attached to the lead hand, which is the one the golf glove is worn on. Use the red clip to attach the sensor to the Velcro fastening flap of the golf glove. When placing the hand sensor within the red clip, be sure to push in the sides of the red clip to make sure the sensor is locked securely in place.



Always be sure to wear your wrist strap when using the hand/club sensor.



Example: Upper Body Garment Placement.



Example: Pelvis Garment Placement.



Example: Arm Strap Placement.



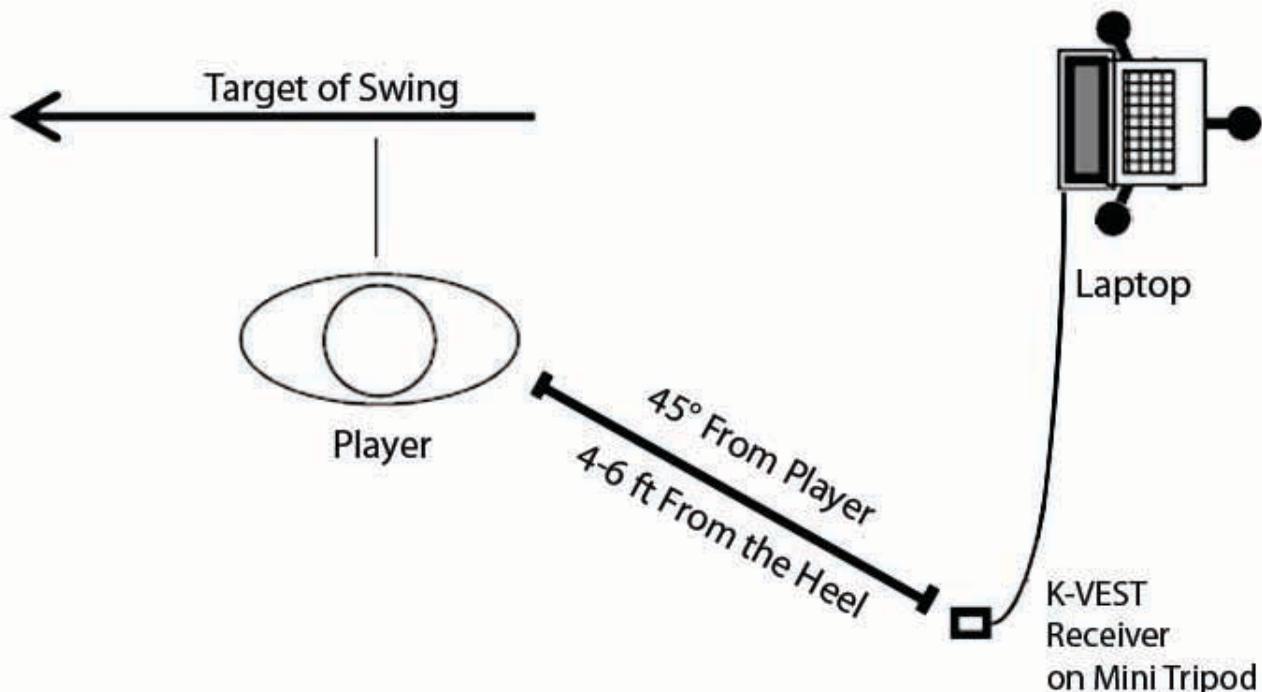
About the Receiver

During use of the K-VEST system, the sensors communicate with the computer via a USB Bluetooth receiver (called simply the "receiver" from here forward). The receiver is configured along with the sensors during the initial setup process. Proper receiver setup and placement are important to ensure good communication and data capture.

It is possible to plug the receiver directly into the USB port on your computer. However, for optimal performance, we recommend using the extension cable and a tripod. Note, many people do plug the receiver directly into the USB port or purchase a short USB cable so they can plug that short USB cable into the computer and place the receiver next to the computer (particularly when working on a tee line). If you need a short cable, we can supply one at a nominal price. Just let us know during your setup call.

Proper Receiver Placement with Extension Cable

1. Plug the USB receiver into one end of the USB extension cable.
2. Plug the other end of the USB extension cable into the exact USB port on your computer on which K-VEST was configured. (Remember to always plug the receiver into the same port.)
3. Attach the receiver to the tripod using the black clip on the top of the tripod. The tripod legs extend to raise the receiver off the ground.
4. Position the receiver down the heel line, away from the target, approximately 45° off of the trail foot behind the player.



Remember that the receiver must be connected to the same USB port every time you use the K-VEST. The sensors will not properly detect if the receiver is moved to a different USB port.

It is possible to use the K-VEST sensors on multiple computers, but, as noted previously, you will need a separate USB receiver for each computer. Various options can be found in the store on the K-VEST website.

If you need to move your K-VEST sensors from one computer to another, contact Support for assistance in pairing your sensors to the new computer.



THE **ANSWER** TO YOUR
STUDENTS NOT DOING THEIR
HOMework

K PLAYER™

PATENTED BIOFEEDBACK TRAINING.

For More Information, Visit: www.K-VEST.com/K-PLAYER

Setting Up for a K-VEST Session

Now that the K-VEST software is installed, the sensors are paired to the receiver, and you have some basic knowledge, it's time to use your system!

We always recommend that when first using the K-VEST, you start by practicing on yourself. When you're familiar with the basic operation of the system and comfortable using it by yourself, invite a friend to stand in as a "practice student." Once you're comfortable working with your practice student, you are ready to use K-VEST in your client sessions.

Hint: If using the system by yourself, you will need to calibrate and capture using the countdown timers (**Menu** → **Timers**). To do this, turn on the timer for calibration and countdown and be sure the volume is turned up. The system will provide an audible countdown, allowing you time to get into the proper position for calibration and capture.

You will find detailed, specific instructions in how to use K-VEST in K-CAMPUS to help you. We highly recommend you visit K-CAMPUS as soon as possible. We also highly recommend that you become K-VEST Certified. As soon as you are ready, Level 1 Certification is available to start online. That's right — you can start right now. As in everything, knowledge is power in K-VEST; K-CAMPUS and certification are designed to give you the knowledge that will empower you.

Review of Setup

We have covered setup procedures already to familiarize you with the how-to portion.

Now we are going to walk you through the setup step by step.

Setting Up Your Equipment:

1. Remove the garment and sensors from the charging case.

2. Turn each sensor on by sliding up the power switch on the left side of the sensor. When the sensor is first turned on, you will see a main light on the bottom of the sensor that will be either green (if plugged in and charging), or white (if not charging or finished charging).



3. Place each sensor inside the correct garment pocket using the sensor LED lights and identification dots on the garments (see more about this topic in the "About the Garment" section).
4. Locate the USB Bluetooth receiver, tripod, and USB extension cable in the carrying case.



5. Either plug the Bluetooth directly into the USB slot, or use the preferred method: Attach the receiver to the tripod using the black clip on the tripod, and connect the receiver to the correct USB port on the computer using the USB extension cable. Once plugged in, place the receiver down the heel line, away from the target, and approximately 45° off of the trail foot behind the player.

6. Place the garments on the player, per the instructions.

Remember, it is important that the hand sensor is worn whenever swings will be captured. Be sure that the wrist strap is used with the hand sensor.

If, during your session, you will only be training biofeedback with the K-VEST (and not capturing swings), only the pelvis, torso, and hand sensor (optional) need to be turned on and used. In this case, you can leave the lead arm sensor powered off. If you are just training the body, you can also leave the hand sensor off.

7. Start the K-VEST software by double-clicking on the "green K" icon on your desktop. If prompted with the warning, "Do you want to allow this program to make changes to your computer?", press "Yes."
8. You will now come to the "Launch" screen where you will select either 3D or 6D. Select "3D." In order for your sensors to work properly, make sure the sensors are turned on by this point; otherwise, the sensors may not be found by the software. Now click the "Launch" button.

9. Next you will be presented with a loading screen. After a brief wait, the home-screen for the K-VEST software will load.



10. Look to the upper right-hand corner of the screen; you will see three icons. The middle icon has a picture of a sensor on it. You should see some green lights blinking next to the sensor icon on the screen. The strobing lights indicate that the software is looking

for the sensors; the detection process takes approximately 30–40 seconds. If the software has found all four sensors, the strobing lights will turn solid green after 45 seconds.

If you see fewer than 4 solid lights, the software may have not detected all of the sensors. You can check that all of the sensors are powered on and restart the software to re-detect the sensors, or refer to the Troubleshooting materials at the end of this guide for more help.

Hint: First, remember to have the external Bluetooth receiver plugged into the correct USB port. Second, you will know a sensor and the software have found one another as soon as the LED light at the bottom of the top of the sensor turns blue, which usually happens before the green lights on the screen stop moving.

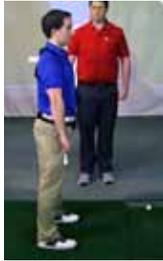
11. Once the sensors have been detected, refer back to the three icons in the upper right-hand corner of the home screen. The left-most icon of the three, which looks like a human profile, is the Client Manager. The Client Manager is where you create and load user profiles.



12. Click on the Client Manager button and load, or create, a profile specific to yourself (or the client with whom you are working). You can use the textbox at the top of the client list next to "Filter by Name" to search your client list if you have a large number of clients. You will know your client is loaded because his/her name and icon will appear in the upper left-hand corner of the software at all times.
13. Once your client is loaded, you are ready to start measuring new swings, analyzing previously recorded swings, or coaching or training within the K-VEST biofeedback.

Calibration

The next step after setup is calibration. Calibration is essential every time you use your system. We recommend you calibrate often. This is because calibration ensures that your sensors accurately capture and represent the movement of the player's body. Before capturing swings or working with the K-VEST biofeedback activities, you need to suit up and calibrate the sensors on the client. We've made the calibration process extremely easy, repeatable and fast.

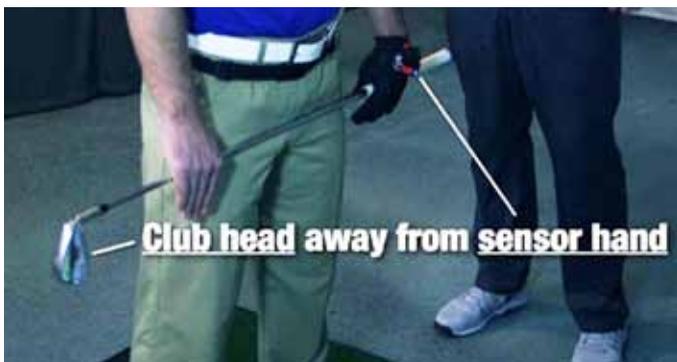


How to Calibrate:

1. Simply have the client stand up straight, in military attention, along the target line (or, if training, in the position in which they will be performing the activity).



2. Ensure that the client is standing straight upright (no slouching), with both arms hanging straight down along the sides of the body, tight against the body.



3. Have the client hold the golf club across the thighs, parallel to the ground,

pointing down the line parallel to the target.

4. Make sure the lead hand with the golf glove and hand sensor are on the grip end of the golf club (not the club head end).
5. Position the hand sensor vertical, or straight up and down with the front of the sensor also being parallel to the intended target line.
6. The other hand should be on the club shaft.
7. Once you've ensured that the client is in the proper position, press the green "Calibrate" button in the upper-right corner of the screen. At this time, you should see the animation "snap upright," and it should match that same orientation that the client is standing in.

You may also see all of the live metrics on the screen (press "M" to view live metrics) go to 0 (except pelvis bend, which is set to 10 by default and can be customized within the client's profile under "Pelvis Offset").

When the client starts moving, the animation should match the client movement.

You will need to recalibrate a client whenever he or she aligns their body (rotationally) to a different target, or the animation simply does not match the client's movement.

Hints: Calibrate frequently and often. You can't calibrate too often. Once you have calibrated, check to ensure the animation on the screen is moving in sync with the client.

Note: If the animation is moving when the client is still, this is called "drift." You may get this from time to time. Don't worry; it is usually caused by the sensor having either travelled through a highly magnetic environment or being in one. Refer to the "Troubleshooting" section for ways to eliminate drift. A quick tip is to turn the sensor off, wait a few seconds, and then turn it back on. If that does not restore it, then refer to the Troubleshooting section of this guide.

When using the system by yourself, you will need to calibrate and capture using the countdown timers (**Menu** → **Timers**). Turn on the timer for calibration and countdown and be sure your volume is turned up. The system will provide an audible countdown, allowing you time to get into the proper position for calibration and capture.

Capturing a Swing

To start capturing swings within the K-VEST, you need to have all of your sensors detected and on the client. It is important that the client wear the hand sensor w/ wrist strap attached when capturing swings.

How to Capture

1. From the K-VEST home screen, click the "Measure" button to enter the swing capture mode. If the sensors are not detected, you will be informed on the subsequent screen which prerequisites to capture swings have not been met. If all of the prerequisites are met, press "Enter Capture Mode."
2. Once inside the live capture mode, you will need to calibrate your player along the intended target line.
3. Once calibrated, we recommend that you have your player take a few warmup swings before actually capturing any real swings. Take this opportunity to make sure the animation avatar on the screen matches the movement of the player. If the animation

is not matching the player's movement, recalibrate the player again.

4. Once you are sure the player is calibrated and the animation is moving correctly, have the player set up in golf posture at address, ready to hit the ball.
5. When the client is ready, press the green "Capture" button in the upper right-hand corner of the Measure window. This will start the capture sequence, and the client will have 7 seconds to take a swing. If the timers are enabled and your volume is turned up, you will hear audio cues to guide the client: You will hear an audible countdown that counts down and tells the client when to swing. From the time the audible countdown says "Swing", he or she will have 7 seconds from that point to swing and have it captured.
6. Ensure that the player swings during the 7-second capture window.
7. Next, the software will quickly calculate the swing data and present you with a list of analysis options. If, for any reason, the swing did not capture successfully, for example, the client wasn't ready and didn't move, you will get a notice telling you to capture again. All you have to do is get the client set up and try the capture again.

Pro Tip: You can use the [3] hotkey on your keyboard to capture.

Biofeedback Training

One of the most used features of the K-VEST software is the biofeedback training. The K-VEST biofeedback allows you to ensure that your players are getting into the right positions and completing the proper movement patterns.

The K-VEST software will soon have more than 140 biofeedback activities preloaded in the software, including activities for: full swing golf drills,

short game drills, fitness activities, physical assessments, and more. All of these activities can be customized and organized into your own personalized training programs and tailored to the personal characteristics of your clients. Literally every default setting for every activity and every program can be changed to create activities that are exactly what you want. Each default activity is built so you can configure the
(Continued on next page →)

Biofeedback Training Continued

position a client gets into, alter the difficulty of an activity to make it easier or harder, or change the number of repetitions for an activity. In summary, saving activities and programs in K-VEST allows you to truly customize for a single player, or for all your players.

To start building training programs and customizing activities, you will need to start by building a new program and adding activities to the new program. Very simply, to save any changes to an activity, a new program must be created, and a copy of the activity must be added to the new program. All changes are saved in a program. Don't worry if you forget to save the program after making your changes: the system will prompt you to create a new program when you save.

This means you cannot save changes over the default activity settings. You create a new program. Put the activity in the program, and save the changes to a new program. To put this another way, you cannot edit the default activity ranges directly; you edit copies of the activity within a new program and save the program.

To access your custom program, go to the "Programs" tab on the Training Builder and locate the program you saved previously. If you save the program as a "client program," the changes will be available only for the user whose profile was loaded when you created the program. If you save the program as a "global program," then the content will be available to all clients.

Use Cases

Let's look at a couple of examples of situations where you might want to change and save activities:

First, if you have a player who cannot get into a position because of a physical limitation, you might customize and save that activity with settings that make the activity achievable for that particular player.

Second, if you have a player who you want to get into a variation of the position that differs from the default setting of an activity, you could customize and save. For example, you might want a particular player to set up with more or less side bend at address than the default setting requested.

Alternatively, you may want to customize and save activities and programs with your versions of activities in K-VEST to use with all of your players. For example, you may have orientations or positions you prefer rather than the default setting for an activity or group of activities. Or you may want to create your own activities. All of these situations are possible with the K-VEST biofeedback. Remember, the default settings

are intended as starting points and can all be customized.

To create your own versions, all you have to do is create a program, add the activities, make your adjustments to the activities, and save your changes as a new "Global Program" to the global tab. Now you have your custom activities to use with all of your clients. For example, in the side bend at address example described, if in your teaching style, you use more or less side bend at address than is the default setting, you can customize and save a version to use as the basis of all your player programs.

As you can see from the examples, the only difference between saving for an individual player and saving for all of your players is the type of program you save the program as. For a single player, you save the program as a "Client Program" on the client tab. For all your players, you save the program as a "Global Program" to the global tab.

Over time, you will probably want to create entire programs for each of your players so they are truly custom-tailored training programs.

Overview of How Saving Activities Works

K-VEST is designed so that you cannot save over the default settings of an activity. You can only save changes to an activity when it has been added inside of a program. This means that you do not have to worry about messing up your default activity settings. To repeat, saving only happens when you are **inside** of a program.

The way "Save" works is you either need to create a program in advance, add the activity to the program and then save it with your changes, or, you select an activity, make your changes to it, and then when you press the Save button, the

software prompts you to create a new program to contain the activity before it allows you to save the changes.

As stated, you have two options as to where a program can be saved and accessed. If you save it as a global program, you can access it with all of your clients. And if you save it as a client program, then you can only access the program when the user profile of the specific client who it was saved for is loaded. At a later point, you can then send it to a different K-VEST or K-PLAYER as long as it is saved somewhere.

Making Changes to Activities, Using Them and Intentionally NOT Saving Them

Sometimes you may want to change an activity to use only in the current session. If you make changes to an activity and start training, the



changes are temporarily loaded (but not saved). They remain loaded as long as you stay on the "Live Training" screen or the "Training Setup" screen. You can go from "Train All Activities" to "Train Selected Activities" (and back or vice versa) via the "Training Setup" screen, and whatever changes you made will be useable in that session. However, if you navigate anywhere other than those screens or exit the software, the changes will be lost unless you explicitly save the program.

Summary

As a rule, if you want to save changes to an activity, make sure the activity is in a program and saved before you use the activity in training. If, when you launch an activity for which you haven't created a program, and you want to save changes to the activity, all you need to do is hit the "SAVE" button on the lower left of the "Live Training" screen, and you will be prompted and guided through the steps needed to save. You can save at any time, but we recommend doing it right after you make changes so that those changes are not accidentally lost.



Loading, Customizing, and Saving Programs and Activities

The following process goes through how to create a new program, add activities to it, modify the program on the fly by setting live and adjusting the difficulty level, and save the program on the live training screen. You may not need to set live or adjust the difficulty, but we've gone through these steps below as this is common functionality:

Building Programs and Customizing Activities

1. Suit up the client: Turn the sensors on and put on the garments.
2. Load the software.
3. Load the client profile for your student.
4. Press the "Train" button (on the home screen).
5. Select, load, and save the activities that you want in your program from the Training Builder screen:
 - a. Add an activity by double-clicking on the name in the left-hand column or by highlighting the name in the left-hand column and pressing the "Add" button in the middle column. **Note:** You will know the activity was added to the program because the name will appear in the right-hand column of the screen.
 - b. Repeat to add all of the activities that you would like in your program.
 - c. Press the "Save" button at the top of the right-hand column (on the training builder screen). After you do this, a box will pop up in the middle of the screen.
6. In the pop-up box:
 - a. Under the Program Name line, type the name of this program.
 - b. Choose whether the program will be saved as a "Client Program" or a "Global Program."
 - c. Press the "Save" button.

- d. You will know the program has saved because the box you were working in will disappear, and the program name will appear at the top of the right-hand column of the "Training Builder" screen.



7. Launch the training session by pressing the green "Launch" button. It is located at the bottom of the right-hand column.
8. On the "Training Setup" screen, you have two options: Run the entire program or enter "train selected exercise" mode. You can change activities in both modes. The method is the same. As most people work from the "Train All Activities" mode, we will follow this work path here.
 - a. Click the green "Train All Activities" button at the top of the left-hand column.
9. You are now on the "Live Training" screen. From here, you can train the activity as-is using the default settings, or you can "Set Live" to customize the activity and set the target ranges to the position the client is currently in. To set live:
 - a. Make sure that the client has the garments on correctly.
 - b. Calibrate the client.
 - c. Select the activity to customize by clicking on its name on the left side of the screen. The name will appear on the training screen.
 - d. Set your client in the position you would like to save.

- e. Press the "Set Live" button.
- f. If the "Train" timers are enabled, you will hear, "Setting Guides in...," followed by a countdown, and then "Guide Set."
- g. To save these custom ranges for the next time the player comes in to train, press the "Save" button in the lower left-hand corner of the screen to save your changes.
- h. You are all set. Now you can change this activity again by going through the same process, or you can change the difficulty of the activity following the steps below.



- 10. To change the difficulty of an activity, click on the "plus sign" beside the set guide live box.



- 11. A box with slider will pop up to enable you to make an activity harder or easier.
 - a. Use your cursor to move the slider toward "Hard" or "Easy." You will see the size of the green/orange biofeedback range shrink as you move toward "Hard" and expand as you move toward "Easy." You are either decreasing or increasing the target range for the movement.

- b. Press "Save" to save your changes for the next time (if desired).
- c. You have successfully made your changes.

- 12. You can make activities harder and easier without setting positions live. And you can change positions without changing the difficulty of activities.
- 13. Now you can change any of the activities in the program by going through the same procedure for each.
- 14. **Note:** Remember — if you loaded an activity into a program and haven't yet saved the program, you can press the "Save" button, and it will prompt you to create a new program in which to save your customized activity.
- 15. Now, use your custom training program with your client.

Learning More About Activities

Your software has more than 140 biofeedback activities preloaded into it. When you find an activity that you want to learn more about, or want step-by-step instructions for performing an activity, you have two options:

To access written instructions

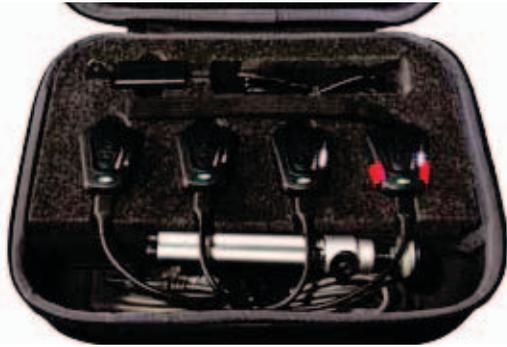
From the activity list in the left-hand column, click on the activity to select it. You will know it is selected, because the activity name will appear at the top of the middle column. Next, click the "See More" button on the middle right of the middle column of the TRAINING BUILDER screen. This expands the description of the activity and provides written instructions on how to perform it.

To access video instructions

From the activity list in the left-hand column, click on the activity to select it. You will know it is selected, because the activity name will appear at the top of the middle column.

How to Train Using a Program (Student Version)

1. Bring the K-VEST black carrying case and the computer with the K-VEST software to the location where you intend to train.



2. Open the carrying case and ensure that you have:
 - a. An upper body garment
 - b. A pelvis belt
 - c. A arm strap
 - d. Four K-VEST sensors
 - e. A USB Bluetooth receiver and extension cord (may already be plugged into the computer)
3. Remove the upper body garment and the pelvis belt from the case. You will also have an upper arm strap in the case as well, but we won't be using this for training. On the sensor pocket of each garment, you will find white dots beside the K-VEST logo. On the upper body garment, you will see one dot, and on the pelvis belt, two dots. The dots will assist you when you put on the sensors later.
4. The USB Bluetooth receiver for the sensors either will be in the K-VEST carrying case or in a slot on the side of the computer. Ensure that you have the Bluetooth receiver.
5. Confirm that the Bluetooth receiver is plugged into the correct port on the side of the computer. If it is not plugged in, do so now. **Remember:** The Bluetooth receiver must be plugged into the same port as it was originally set up on. (We recommend marking the correct USB port with a sticker or some other mark to make identifying the port easier.)

6. Turn on the computer.

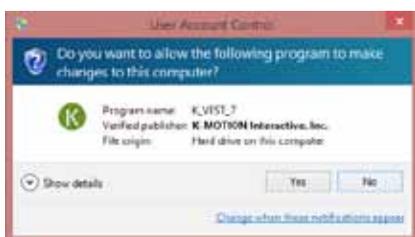


7. Turn on the sensors. To turn on a sensor, slide the switch up on the left side of the sensor. A horizontal light will turn on along the bottom of each sensor. The light will be lit white initially. It will change color from white to blue when the sensor pairs with the Bluetooth receiver. No light, or a red light, indicates the sensor needs to be charged. **Remember:** The light ought to be lit white now as you have not yet launched the K-VEST software.
8. Identify the upper body sensor and the pelvis sensor. On the right side of the front of each sensor, you will see lights to help you determine which sensor is worn on which body part. One light indicates that the sensor is the upper body sensor. Two lights indicate that the sensor is the pelvis sensor. (These lights will stay lit for the first 60 seconds when a sensor is powered on.) If no lights are lit along the side of a sensor, turn the sensor on and off again. The lights ought to come on. If they do not, the sensors need charging.
9. Insert the sensor with one lit white light into the pocket on the upper body garment. Press it in snugly. Now close the Velcro pocket to secure the sensor. (**Note:** To help you identify the upper body sensor, one white dot appears on the right side of the K-VEST logo on the upper body garment, matching the sensor light.)
10. Insert the sensor with two lit white lights into the pocket on the pelvis belt. Press it in snugly. Now close the Velcro pocket to secure the sensor. (**Note:** To help you identify the pelvis sensor, two white dots appear on

the right side of the K-VEST logo on the pelvis belt that match the sensor lights.)



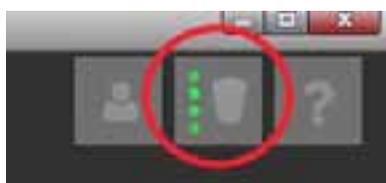
11. On the desktop is a green K-VEST icon. Locate the K-VEST icon and double-click on it. This will launch the software.



12. A box may appear on the desktop with the message, "Do you want to allow this app to make changes to your PC?" If you see this message, click the "YES" button.



13. A box with the K-VEST logo will appear on the desktop. Beneath it, you will see two buttons, "3D" and "6D". Click once on the "3D" button.



14. A loading screen will appear, followed by the home screen for the K-VEST software.

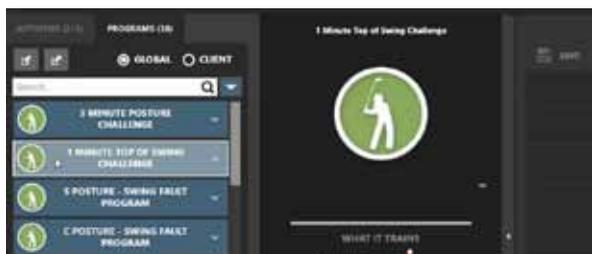
In the upper right-hand corner of the home screen, there are three buttons. The button in the middle displays an icon of the sensor. Beside the icon, if all of the sensors have paired with the software, you will see four lit green circles. Please note that after arriving at the home screen, it typically takes 15–45 seconds for the sensors to be detected within the software. If, after 45 seconds, the lights on the sensor icon are not lit, please refer to the Troubleshooting Manual for ways to ensure the sensors are connected.

15. Beside the icon of the sensor on the home screen, you'll see an icon of a human form. Click on this icon.
16. You are now on the Client Manager screen. Find your name in the list of names. You can do this by scrolling down the list. You can also click on the white text box beside "Filter by Name" at the upper left side of the screen and type your name into the space.



17. Once you have located your name, click once on your name to select your profile. You will know that you have selected your profile when a white border surrounds the rectangular box with your name in it.
18. Next, click once on the green button on the lower left of the client manager screen with "LOAD CLIENT" written on it in white letters. This will load your profile and take you back to the home screen.

19. Now you are back at the K-VEST home screen. Look in the upper left corner of the home screen. You should see your name in white capital letters beside an icon of a golfer. (**Note:** If your name is not written in the upper left corner, then your profile has not loaded. To re-load your profile, return to step 16.)
20. In the lower middle portion of the screen is the "START TRAINING" button. Click once on the "START TRAINING" button.
21. You are now on the TRAINING BUILDER screen. This is the screen where you will find and load your program. In the center of the top row of the screen, you will see "TRAINING BUILDER" in white capital letters. In the upper left corner of the screen, you will see your name. Beneath your name you will find, in bright white letters, the word "ACTIVITIES." Beside it, you will see the word "PROGRAMS" in faint gray letters. Click once on the word "PROGRAMS." When you do this, it will change from dim to bright.
22. Under the word "PROGRAMS," you'll see the words "GLOBAL" and "CLIENT." To the right of the word "CLIENT," you will see a white circle or radio button. Click on this white circle beside the word "CLIENT." This will bring up a list of all of your personal or client programs.
23. From the list, identify the program that you wish to use in your training.

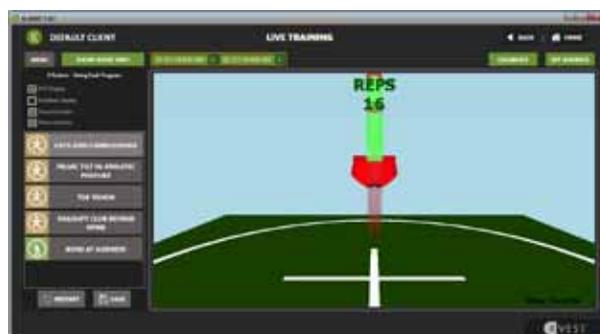


24. Select the program by clicking once on the rectangle with the name of the program written inside it. A white frame will surround the rectangle to designate that the program has been selected.

25. Now load the program by either double-clicking on the name of the program or clicking once on the blue button in the middle column with the word "LOAD" written in it.



26. A box should appear with the K-VEST logo and the message "Loading a program will destroy the current program you may have loaded. Are you sure?" Don't worry about this warning. Click "YES."
27. You can confirm that the program has loaded by looking for the name of the program on the top of the right-hand column on the screen. Beneath it are the names of the activities in the program. At the bottom of this column is a green button with white letters spelling out the word "LAUNCH." Click on this button.
28. You'll see "TRAINING SETUP" written on the top to let you know you are on the training setup page. Find the green button on the right side with "TRAIN ALL ACTIVITIES" written on it. Click this button. (**Note:** if you are doing a block practice session of one drill only, select a single exercise in the middle column, and click on the "TRAIN SELECTED ACTIVITY" in the lower box on the right-hand side of the screen.)



29. You are now on the LIVE TRAINING screen. LIVE TRAINING is written in white letters at the top of the screen, and a 3D training avatar is located in the middle. You are now ready to begin training.



30. Put on the upper body garment and the pelvis belt.



31. Calibrate the sensors.
32. Congratulations, you are ready to train!
33. Train and complete each exercise as you were taught by your instructor. To restart the list, click the restart button on the lower left of the screen.
34. When you have finished training, close the software by clicking on the red "close" button in the upper right corner of the LIVE TRAINING screen. This will close the program. You are now ready to shut down your computer.
35. Shut down the computer.
36. Take off the garments.
37. Remove the sensors from the pockets.

Turn them off by sliding the switch on the left side of each sensor downward. You will know the sensor is turned off if the bottom light on the sensor is not lit.

38. Return the sensors to the carrying case for charging.
39. Put the pelvis belt and the upper body garment back in the carrying case and zip the case shut.
40. Return the computer and the K-VEST case.



Transferring a program from one K-VEST/ K-PLAYER to another K-VEST/K-PLAYER

Some users will want to share the custom training programs that you build in your K-VEST or K-PLAYER with other K-VESTs or K-PLAYERS. This is particularly important for running lightly supervised and unsupervised programs and working with students who are at a distance.

To transfer a program from one system to another, you will need to export the specific program from the first computer and import it into the second.

To export a program, follow these steps:



1. From the home screen, click on the Client Manager icon in the upper right-hand corner (the icon with a human profile on it).
2. Load the profile for the client whose program you wish to export by selecting the client's name and clicking "Load Client."
3. You will now be back at the home screen. The name of the player will appear in the upper left-hand corner of the screen. If the name is not here, please, repeat steps 1–3.
4. Click the "START TRAINING" button on the bottom of the screen.



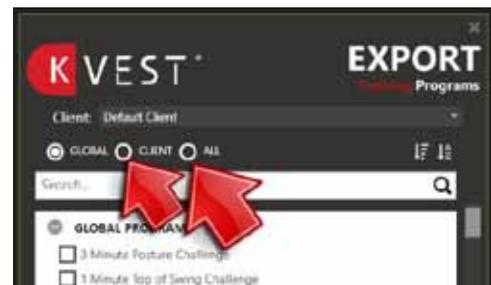
5. You are now at the Training Builder. On the top of the left column, click the "PROGRAMS" tab.



6. To the left of the buttons for global and client programs, you will see buttons for "IMPORT" and "EXPORT." The left button (with the arrow going in to the box) is the "IMPORT" button. The right button (with the arrow going out of the box) is the "EXPORT" button. Click the "EXPORT" button.

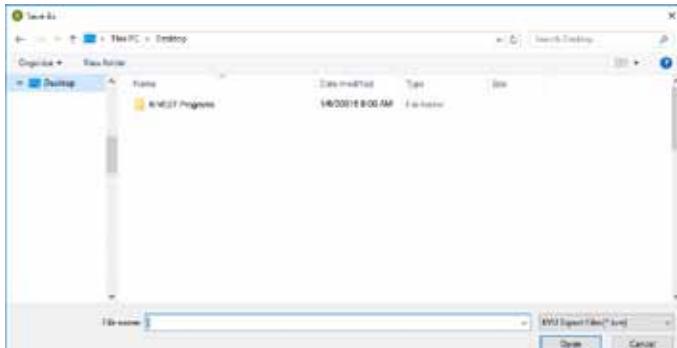


7. The "EXPORT PROGRAMS" window will appear. Select the name of the client for whom you wish to export the program in the drop-down menu at the top of the window.
8. Once a client name is selected, a list of the client's programs will appear in the bottom list.



9. By default, this window displays global programs. To see a list of client programs, select the radio button for "Client" above the list, or choose "All" to see both client and global programs.

- From the list, select the programs you want to export. You can select multiple programs at once. To select a program, click on the square beside its name.
- After you have selected all the programs you wish to export, in the bottom right corner of the "export program" window, press the green "EXPORT" button.



- The "SAVE AS" window pops up. Select the location on your computer where you want to save the program file. Then press the "save" button in the lower right-hand corner of the window. We recommend saving your program to the desktop or to a location that you can easily find later.
- The program has now been exported from the K-VEST/K-PLAYER software to your computer.



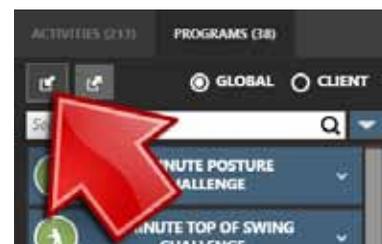
- You have choices as to how to send/transfer the file. To send it via email, open your email program, find the program file where you saved it, and attach it to an email. Now send the email with the program file attached to an email account on the computer on which you want to open the file. You can also insert a flash drive, copy the file to the flash drive, and then bring the flash drive to the computer where you wish to re-install it.

To import a program into a K-VEST or K-PLAYER, follow these steps:

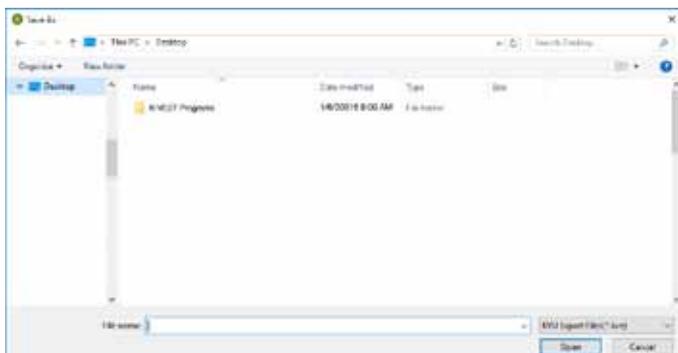
- Find the program file(s) you want to import on your computer. If you sent it via email, go to your email and download and save it onto your computer. If you put it on a flash drive, save it to your computer. Please take note of the name(s) and where you saved it.



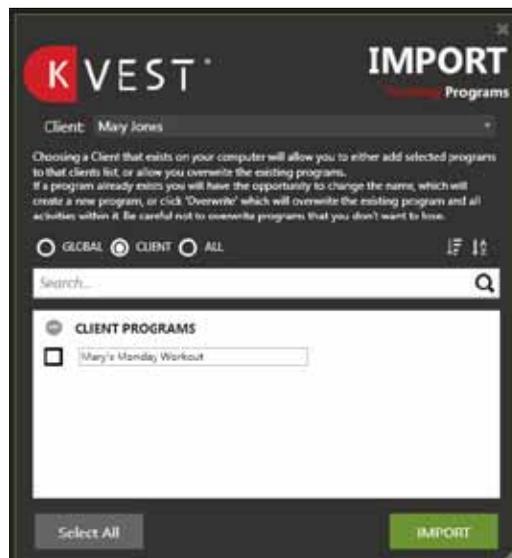
- From the home screen of your K-VEST/K-PLAYER, click on the Client Manager icon in the upper right-hand corner (the icon with a human profile on it).
- Load the profile for the client whose program you wish to import by selecting the player's name and clicking "Load Client."
- The name of the player will appear in the upper left-hand corner of the screen. Check this now. If the name is not here, please repeat steps 2–3.
- Click the "START TRAINING" button on the bottom of the screen.
- You are now at the Training Builder. On the top of the left column, click the "PROGRAMS" tab.



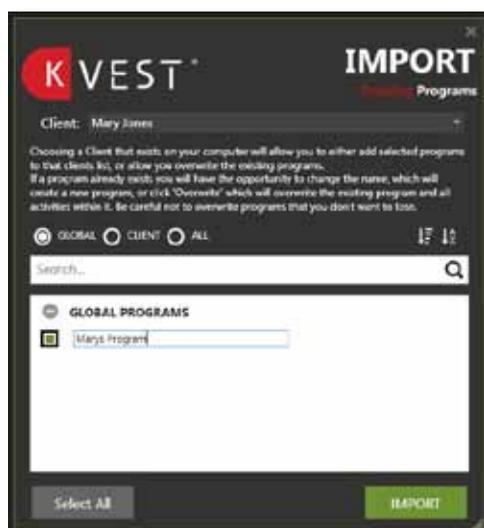
- To the left of the buttons for global and client programs, you will see buttons for "IMPORT" and "EXPORT." The left button (with the arrow going in to the box) is the "IMPORT" button. The right button (with the arrow going out of the box) is the "EXPORT" button. Click the "IMPORT" button now.



8. An "OPEN" window will pop up. Find the file name of the program(s) you want to import.
9. Select the file(s) you previously exported that you now wish to import. Then, press the "Open" button in the lower right of the pop-up window.



13. When you have selected all the programs you wish to import, press the green "IMPORT" button.



14. The program(s) has now been imported. You should be able to find the newly imported program on the "GLOBAL" or "CLIENT" tab. If a program was previously a GLOBAL program, it will still be one, and if it was a CLIENT program before, then it is a client program now. Please note that client programs will only appear for the specific client for whom you imported it.

10. The "IMPORT TRAINING PROGRAMS" window will pop up now. Select the client name for whom you want to import the program(s) from the drop-down menu at the top of the window.
11. Once the client is selected, a list of the client's programs will appear in the bottom list.
12. In the bottom list, select the programs that you wish to import. You can select multiple programs at once. Please note: If a program with that name already exists for the selected client, you will need to change the program name first before importing (in order to avoid duplicate program names).

Congratulations! You have successfully exported and imported a training program, a foundation of lightly supervised and unsupervised training with K-VEST/K-PLAYER.



Introduction to Guides

You may have noticed that some of the activities in the K-VEST software have only one set of “targets,” or positions you need to get into to have the software count a rep as completed. However, other activities have multiple positions in which a rep is recognized and counted. Each set of target positions is called a “Guide.”

Some activities, such as “Bend at Address,” have only one guide, as you only need to get into the proper bend of the upper body and pelvis to complete a rep. Other activities, such as “Rotary Disc Swing,” have multiple guides; this activity trains rotation at both the top of the backswing and at impact. Since this activity has two positions in which a rep can be counted as valid, we consider this a two-guide activity.



When an activity has one guide, you will see a single guide in the guide list at the top of the screen on the “Live Training” screen (see image above). The guide list appears at the right of the “Show Guide Info” button at the top of the “Live Training” screen.



When an activity has multiple guides, you will see multiple guides in the guide list at the top of the screen on the “Live Training” screen (see image above.)

You’ll notice the DVT (dynamic visual training) rings around the 3D animation have shaded green areas. These represent the guide targets that need to be reached to complete a repetition. When an activity contains more than one guide, a repetition will be counted when any of the green highlighted ranges are reached.



To determine which ranges go with a guide, hover your mouse over the numbered guide button at the top left of the “Live Training Mode” (see figure 3). You’ll notice each guide button starts with a number in parentheses to signify which guide it is. When you hover your cursor over a guide button, the shaded guides for that button turn from green to orange along the DVT rings on the 3D animation.

Changing an activity from the “SHOW GUIDE INFO” button

The following process goes through how to change various properties of an activity from the pop-up “Edit Activity” window when you click “Show Guide Info.”

In this section, we will learn how to:

- Change the name of an activity
- Add a guide
- Set a guide live
- Change the number of reps of an activity
- Change the time per rep
- Make an activity harder or easier
- Change the target numbers for the range of movement in a guide

Initial steps to editing an activity

1. Load a client profile.

(Continued on next page →)

- From the home screen, navigate to "TRAIN."
- Load a program or activity to be trained.
- Navigate to "LIVE TRAINING."
- Select the activity to customize by clicking on its name on the left side of the screen. The activity will load, and its name will appear on the Live Training Screen.
- Click on the green "SHOW GUIDE INFO" button on the top left of the screen.



- The Edit Activity window pops up to allow you to edit the activity in the basic view. This box is where you will make the changes you want to make to the activity and save them.

Modifying individual activity properties



To change the name of an activity: In the white "Movement Name" text box at the top, type the name you want the activity to change to.



To add a guide to an activity: Click the green "+GUIDE" button. To remove a guide, click the green "-GUIDE" button. An activity can contain many guides. This can be a very powerful feature,

and it will allow you to customize activities in many ways. However, be careful; the more guides you add, the more complex the activity becomes, and the harder it is to perform.



To set a guide live: Press the blue "SET LIVE" button. Setting live will set the target position to the current values of where the sensors are when "set live" is pressed. This is useful for when you have a client who cannot get into the default ranges. You simply get them as close to the target range as possible, and "set live." The client will then have a target that is achievable for their physical limitations.



To change the number of reps of an activity: In the white box below the word "REPS" on the left side of the screen, change the number.

To change the time per rep: In the white box below the word "SEC. PER REP," change the number. This will adjust how long a position must be held "in range" to be counted as a completed repetition.



To make an activity harder or easier: Move the slider underneath the colored metric tiles toward “hard” or “easy.” This will adjust the tolerance, or size, of the green shaded ranges along the DVT rings in “LIVE TRAINING.”

To turn a guide on or off: The graphic in the middle of the “Edit Activity” window shows body parts, and beside them, colored tiles with icons for the metrics: rotation, bend and side bend. A bright tile beside the names of the body parts means a particular guide is turned on for a specific body part. You can hover your mouse over each tile to see what the target range and tolerance are for a specific metric. To turn on or off an individual metric, just click on a colored tile to toggle it between “active” and “disabled.” The bright icons identify the metrics that are in use for the activity for each specific guide.

To set a target position or change the target number for an activity guide:

1. Click the orange “ADV VIEW” (advanced view) button. It is located above the colored tiles on the Edit Activity pop-up window.
2. The advanced view appears, and the metrics that are enabled for the specific guide will be brightly lit.
 - a. For each body part and metric pair, you can edit the target number by entering the desired number in the textbox in the center of the tile.
 - b. You can also press the plus (+) and minus (-) keys in the tile to adjust the numbers incrementally.

- c. As mentioned, a bright tile means that target metric is enabled, while a dim tile means it is disabled, or not counted for this specific guide. To enable a metric, just click on the tile, and it will change from dim to bright. To disable a metric, click on the tile to toggle it off, and the tile will dim.
- d. To save these custom ranges for the next time the player comes in to train, press the “Save” button in the lower left-hand corner of the screen.
- e. You are all set. Now you can change this activity again by going through the same process, or you can change the difficulty of the activity within “LIVE TRAINING” mode on-the-fly following the steps below.

To change the difficulty of an activity on the LIVE TRAINING screen

1. Locate and click on the “plus sign” beside the set guide live button in the guide box. If the activity contains multiple guides, the shaded rings around the DVT rings for the currently selected guide will turn orange.
2. A box with a slider will pop up to allow you to make an activity harder or easier.
 - a. Move the slider toward “Hard” or “Easy.” You are either decreasing or increasing the size of the range around the target number. You will see the size of the orange biofeedback range shrink as you move toward “Hard” and expand as you move toward “Easy.”
 - b. Press “Save” to save your changes for the next time (if desired).
 - c. You have successfully made your changes.

Note: Remember — If you’ve created a new program and haven’t yet saved it, you can press the “Save” button, and it will prompt you to create a new program in which to save your customized activities.

NEXT™



What Is NEXT?

NEXT is a new feature in both K-VEST and K-PLAYER that turns static positional training into dynamic movement training. Players learn how to complete — and how to retain — the complete desired movements. NEXT uses dynamic visuals and audio tones that appear and disappear during the golf swing or other movements. Once the initial motion target is achieved, the NEXT intended target automatically appears, continually guiding players and athletes toward improvement.

So now, in one continuous motion, golf professionals can train the player's setup, takeaway, top, transition, impact and finish for the desired shot at hand.



Fitness or medical professionals — You can use NEXT to train a deep squat, improve dynamic patterns for both stability and mobility... or even help someone learn how to properly stand up from a chair.

NEXT is fully customizable based on the client's physical limitations and the desired outcome.

3 Ways to Use NEXT

With NEXT, there are three modes you can use to dynamically train a movement:

1. **Preloaded NEXT programs:** Use a preloaded global program that is optimized for NEXT.
2. **NEXTIFY activities:** Learn to link activities to build a dynamic training program.
3. **Enable NEXT on a single activity:** Create a dynamic motion using a single activity as a starting point.

NEXT Method 1: Preloaded NEXT Programs Use a Preloaded Global Program That Is Optimized for NEXT



For golf professionals, one of the easiest ways to get started with NEXT is to use a preloaded program that has been "Optimized for NEXT." While the NEXT feature can be used with any program in the software, these "NEXT optimized programs" are ideal for dynamic swing training.

Let's show you exactly how to do this:

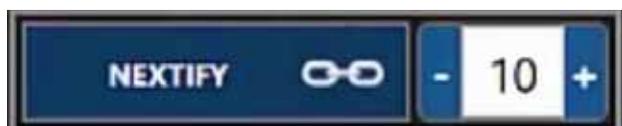
1. Turn on your system.
2. Load a client / return to the Home screen.
3. Press the "Train" button.
4. Select the "Programs" tab on the top of the left column.
5. Select a NEXT program from the program list on the left. The "N" icon signifies a "NEXT optimized program."
6. Load the desired program.
7. "Launch" the program, and then select "Train All Activities."
8. Make sure the player is calibrated with the green "Calibrate" button.



- You will notice a new "NEXTIFY" button on the bottom left. Simply click to enable. Enabling NEXTIFY combines these three individual activities into one dynamic motion. The reason we call these programs, "Optimized for NEXT," is that they progressively move the body from one motion to the next.



- One recommendation for success is to make sure you "Set Live" on all activities before clicking NEXTIFY. This only needs to be done on the first session, as your changes can be saved. Remember to save the program for the client in the client profile.
- To customize each activity for the client, click on each activity; click "Set Live" and then repeat for the other activities. If you are changing the length a rep must be held (sec/rep), these must also be set for each activity.



- Press the gray "NEXTIFY" button on the bottom left. When it turns blue, you are ready to train the linked NEXT program.

- [Optional] It is now even easier to increase or decrease the total number of desired reps. Simply click the (+) or (-) buttons in the white box to the right of the "NEXTIFY" button. You can also type a new number in the text box. **Remember:** This will change the reps for **all** of the linked activities.
- [Optional] You can set the amount of time a position must be held before advancing you to the next activity. To do this, click on the "Show Guide Info" button and change the number in the "Sec. per rep" box. You can set the time to "0," and in that case, all a player must do to count the rep is to pass through the position and not hold it. This is ideal when working under live conditions to hit balls or practice other full movements.

NEXT Method 2: NEXTIFY Activities Learn to Link Activities to Build a Dynamic Training Program

One of the best ways to use NEXT is to NEXTIFY a group of individual activities together. You can select and load the desired activities into a program and then NEXTIFY them once they are launched. Let's show you exactly how to do this.

To create this linked rotation program or a program with any activities you select, follow the steps below:

- Load a client / return to the Home screen.
- Press the "Train" button.
- Select the "Activities" tab on the top of the left column.
- Add the activities that you would like to be dynamically trained in the order you want to train them. For our example program, add the following activities in this order:
 - Rotation at Address
 - 20–40 Takeaway Sequence
 - Rotation at Top
- Press the "Save" button at the top of the right column to save the program you have created. A pop-up window will appear.

6. Name the program by typing in a new name in the box for "Program Name."
7. Choose if you want the program to be a Client Program or a Global Program by pressing the circle next to the desired type of program.
8. Press the green "Save" button. You will know the program has been saved because the window will disappear, and the name of the program will appear at the top of the right column.
9. Press the green "Launch" button at the bottom of the right column. This will take you to the "Training Setup" page.
10. Press the green "Train All Activities" button in the box at the top of the right column.
11. Make sure the player is calibrated with the green "Calibrate" button.



12. Press the gray "NEXTify" button on the bottom of the left column. When it turns blue, you are ready to train the linked Next program.
13. The total number of reps you must complete of each activity in the list is displayed in the box to the right of the "NEXTify" button. Increase or decrease the total number of reps as desired by clicking the plus (+) or minus (-) buttons, or type a new number in the text box. Remember this will change the reps for **all** the linked activities. Also, you can set the amount of time a position must be held before advancing you to the next activity.
14. The activities are now linked. Once you complete one rep of each activity in the list, the software will advance you to the next activity. This allows you to train the full swing, instead of training each position statically on its own.



15. [Optional] You can set the amount of time a position must be held before advancing you to the next activity. To do this, click on the "Show Guide Info" button and change the number in the "Sec per Rep" button. You can set the time to 0, and in that case, all a player must do to count the rep is to pass through the position and not hold it. This is ideal when working under live conditions to hit balls or practice other full movements.

NEXT Method 3: Enable NEXT on a Single Activity Create a Dynamic Motion Using a Single Activity as a Starting Point



The third way to create a NEXT program is to load an activity and enable "NEXT." In this case, you load a single drill or exercise, enable NEXT, and then add guides at as many positions through the movement sequence as you like. You can then save and train the activity in a series of dynamic motions.

This method allows you to set up multiple guides under one activity, and it forces the user to achieve each guide position in the specific sequence you configure. Remember that you must set up an

activity using the NEXT functionality, or the client will be able to complete a rep by getting into the guide positions in any order, as opposed to the order you specify.

To create an activity with NEXT, we'll start in the Training Builder:

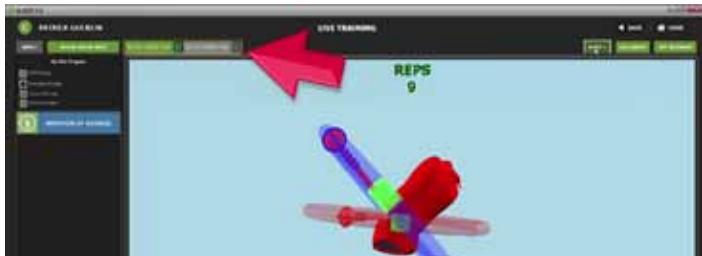
1. From the Home screen, click on the "Train" button to enter the "Training Builder."
2. We start with an existing activity as a template. So, we need to select an activity. Let's begin by choosing "Rotation at Address."
Note: It helps to start with an activity that uses positions and the body segments you want to train in your NEXT program. For example, we want an activity in which the client rotates (turns), so we start by choosing "Rotation at Address," which begins with the rotation of the pelvis and the upper body.
3. Select "Rotation at Address" from the list of activities by clicking on it. Then add it to the program list by clicking it again or pressing the "Add" button. Remember, as with all K-VEST activities, you can create activities for single or multiple body segments. You can also set up any combination of up to three metrics (bend, side bend, and rotation) for each body segment at each point.
4. Name and "Save" the program now.
5. Press "Launch" to enter the live training mode.
6. Click the green "Train All Activities" button at the top of the right-hand column.
7. You are now on the "Live Training" screen. From here, we will use the "Rotation at Address" activity to create our NEXT rotation.
8. Click the "Edit Guide Info" button in the upper-left corner of the screen.
9. As you can see, by default, "Rotation at Address" is set up to use the torso and pelvis as the body segments and rotation as the metric to train. "Rotation at Address" only has one guide enabled, which we can see here by the single "Guide 1" in the list. We will be adding more guides shortly.

10. You can enable or disable a body segment (torso/pelvis, in this case) if you wish to train only a single body segment by clicking on the colored tile for rotation beside the body segment. If the metrics is brightly lit, then it is enabled. You can keep the rotation metrics enabled or switch to the "bend" or "side bend" metrics instead by clicking on the colored tiles. You can select multiple metrics if you like. Any body segments and metrics that are lit will be built into the program to be trained.



11. Click the blue "NEXT" button in the upper-right corner of the Edit Guide window. This will enable NEXT functionality, which will allow you to set up all future guides "in sequence."
12. Click "Close" to return to the live training mode.
13. If you leave this activity as-is without making any more changes, the activity will remain as a simple "Rotation at Address" drill with only one guide. Now that you've clicked the NEXT button, though, all future guides you add will need to be completed in order after you achieve the initial "rotation at address" position, creating a set of guides for rotation at various points during a full movement or motion. Each guide is one link in the complete movement.
 - a. [Optional] If you want this activity to begin at a position different from the default range for "rotation at address," you can manually position the client where you want them, and click "Set Guide Live" on "Guide 1" in the guide list at the top. For now, we'll leave this range alone, though, and add a second guide. Let's add the second new guide now in Step 14.

14. Before you can add a new guide, physically position the client's body so they are in the ideal position you want them in after they successfully complete the address position. For example, this could be a quarter the way into their backswing. Have them pause and hold the position you want them in at quarter-back, and click the "NEXT+" button in the upper-right corner to add a new guide.



15. You will see a second guide appear in the guide list at the top of the "Live Training" window. This means that this activity now has two positions in which a rep is counted. Unlike a standard activity, these guides must be completed in sequence.

16. As you work your way through each guide, you will see the currently active guide colored green in the guide list bar at the top.



17. At this point, you can train this activity in sequence as-is, using the two guides we set up. Alternatively, you can continue to add more guides in sequence. For example, you could have the student set up two additional guides: one near "rotation at top," and one for the "halfway down" position in the swing. Under this configuration, we have a total of four guides, which would need to be completed in the order to the right:



1. "Rotation at Address" — The original default settings.



2. Quarter-Turn Back — The new guide we just added.



3. Rotation at Top — The new third guide added in Step 17.



4. Halfway Down — The new fourth guide added in Step 17.

Once the fourth guide position is successfully achieved, the client would restart with guide position 1 (Rotation at Address) again until they completed the set. Following this order, you could build a basic activity to train rotation at various points through the swing.

Conclusion

You just learned three key ways to implement NEXT:

- 1) **How to use preloaded NEXT programs:** Use a preloaded global program that is optimized for NEXT.
- 2) **How to NEXTIFY multiple activities together:** Learn to link activities to build a dynamic training program.
- 3) **How to enable NEXT on a single activity:** Create a dynamic motion using a single activity as a starting point.

NEXT is the next step on the journey of helping your players and athletes achieve their desired outcomes.

Welcome to the power of NEXT!



Quick Troubleshooting Guide

How do I start the K-VEST so that all the sensors connect?

If you follow this routine, your sensors will be detected and connected nearly all of the time:

1. Plug your USB Bluetooth receiver into the USB port that it was originally configured for – you must use the same port every time.
2. Turn on your computer.
3. Wait 10 seconds.
4. Turn on all of your sensors.
5. Wait 10 seconds.
6. Start the K-VEST software.

My sensors won't connect now, but they worked before; what do I do?

Make sure your USB receiver is plugged into the port for which it was configured. Confirm that you are following the steps outlined in the answer to Question 1.

If a sensor is still not detecting, run the power cycle process:

1. Close the software
2. Turn off all the sensors
3. Unplug the USB Bluetooth receiver
4. Wait 10 seconds
5. Plug the USB Bluetooth receiver back into the USB port for which it was originally configured (if you're unsure which port it goes into, contact Technical Support).
6. Turn all the sensors back on
7. Re-start the software. If the sensors do not detect after performing the power cycle, contact Support for help.

I just got my K-VEST, installed the software and can't get my sensors to detect. What do I do?

If you just received your K-VEST, the sensors won't be detected by the software until they are paired up. Contact K-VEST Technical Support — they will help you configure and pair your sensors.

What do I do if I accidentally turn off a sensor so it is not detected or connected?

Most of the time you can just turn it back on, and it should re-detect after about 15 seconds. If it doesn't automatically re-detect, complete the power cycle process outlined previously.

The sensors are moving the wrong body parts on the screen. For example, I move my upper body, and the pelvis animation moves. What do I do?

Check that the lights on the bottom of the sensors are illuminated blue on all four sensors. If a sensor does not have a blue light lit, the software has not detected it.

1. Make sure the sensors are turned on and the batteries are charged. A key for what each sensor light means is below.

Sensor Lights Key:



Blue: Sensor turned on, detected by software

Green: Sensor plugged in, currently charging

White: Sensor turned on, completed charging, not detected by software

Red: Sensor turned on, low battery

2. If a sensor light is not blue, perform the "power cycle process" in the question to the left.
3. A sensor may also be in the wrong garment. Double-check that all of the sensors are in the correct garments. We designed the sensors with a handy LED light key to help identify which sensor goes in which garment. When a sensor is first turned on, look at the small lights on the right-hand side of the sensor. Match the number of lights on the sensor to the number of dots on the garment pocket for each sensor.

Match the dots on the sensor to the dots on the garment pocket



LED Lights Key

(Please note that LEDs auto-shut off after 60 seconds to conserve battery life)

1 light = upper body

2 lights = pelvis

3 lights = hand

4 lights = upper arm

The 3D animation keeps moving or spinning when the sensors are not moving and the player is still. What do I do?

This is called sensor drift. You may have a magnetic source nearby interfering with the signal. You need to move or remove the magnetic source.

1. Check to make sure you don't have any large metallic items nearby. Metal tee dividers and tables often become magnetized over time. If you put your hand sensor up against an object and the hand animation spins, it is likely you have located a magnetic charge. Once you have removed the magnetized object, restart the system.
2. Some golf clubs, such as Rifle shafts, have a magnetic charge. If you put your hand sensor up against the club and the hand animation spins, your club has a magnetic charge on it. Try another golf club.
3. Check to make sure you are not wearing a magnet. Look for any magnets in your gloves (such as those to hold a ball marker), magnetic bracelets and any other magnetic or metal objects, like a watch, that may have a magnetic charge that may be on or around the player. Remove the magnet and restart the system.
4. If the problem persists, contact Support. They will help you recalibrate your problematic sensor. This process usually takes about 15 minutes.

The 3D animation appears to be "lagging" or is delayed. What do I do?

If you notice that the 3D animation is delayed / not moving in real time / lagging behind the player's actual movement, then the sensors may not be communicating with the USB Bluetooth receiver efficiently.



1. Confirm that the receiver is set up in an optimal position. We've included a picture to the left.
2. If the Bluetooth receiver is in the correct position and you are still having problems, your computer's own built-in Bluetooth receiver may be conflicting with the K-VEST Bluetooth. Make sure the Bluetooth

is plugged in correctly. If you still have trouble, contact K-VEST Support.

Can I install the K-VEST software on more than one computer and use it with the sensors?

Yes, however you will need a separate USB Bluetooth receiver for each computer you install K-VEST on, and Support will have to configure each computer.

I receive an error messages or the message "the capture not complete" while capturing a swing. What do I do?

Follow these steps:

1. Make sure you are wearing all of the sensors and that they are all turned on before capturing a swing.
2. The hand sensor is used to mark impact, and it must be worn in order to successfully capture and detect the impact. If you are just training, you can wear only the pelvis and torso sensor. However you must be wearing the torso, pelvis and hand sensor to capture swings.
3. Hit a ball, or impact bag when capturing the swing. While the K-VEST can sometimes detect the movement of an "air swing", it may not be able to properly calculate certain swing points such as address, top and impact without hitting a ball.
4. On some international (non-English) computers, you will need to change the computer's "Region Settings" to "English (United States)."
5. Lastly, try to disable or turn off your video camera if you have one plugged in, restart K-VEST, and try again.
6. For further assistance, please contact support.

How do I turn on the voice countdown for calibrating and capturing swings?

The audible countdowns are called "Timers". They are disabled by default. To enable timers, enter the "Measure" or "Train" modes and click: **Menu > Timers**. Set the desired timer to greater than 0 seconds. Be sure your volume is turned up and your speakers or headphones are plugged in.

What does it mean when the light on the bottom of my sensor turns red?

When the bottom light on the sensor is red, the battery needs to be recharged. Use the charging cables built into the carrying case to charge the sensors. You can plug the case into an AC wall outlet, or you can remove the adapter on the end of the charging cables (like a cellphone) and use the USB cable to charge the sensors directly in your computer. The sensors charge quickly: They will go from 0% to 80% in roughly 30 minutes. A fully charged sensor should last for 5 hours. To learn what the other lights mean, refer to page 1.

How can I learn more about using my K-VEST?

To learn more about the system, please visit the K-CAMPUS website. The K-CAMPUS is our online educational portal, which includes many how-to videos, best practices, and other helpful tips about your K-VEST. We also recommend K-VEST Certification Programs to learn more about using your system. www.K-CAMPUS.com

This has been a brief introductory lesson about getting the K-VEST equipment ready, loading a player, calibrating the software, and taking swings. This is only the beginning of your K-VEST journey! More information is available about these topics, as well as swing analysis, training, and other topics through our Help resources. You can also contact our friendly Support team for help using the contact information below. We look forward to seeing you at K-VEST events and helping you take your lessons to the next level!

Contact Us:

General: 1.603.472.3519 – info@k-vest.com

Sales: 1.603.472.3519 option 1 – sales@k-vest.com

Tech Support: 1.603.472.3519 option 2 – customer@k-vest.com

Education: education@k-vest.com

Become a K-VEST Certified Professional today! This will enable you to take full advantage of your K-VEST / K-PLAYER to improve student outcomes and grow your business. We offer three levels of certification to instruct you in how to use the K-VEST more efficiently and become a better teacher. Learn more about our certification programs on our website (<https://www.k-vest.com/certifications/>), or ask your account rep for more info.

Also check out the K-CAMPUS (www.k-campus.com), our online educational portal to learn more about K-VEST. A one-year subscription to K-CAMPUS is included with the purchase of every new K-VEST. Contact Support if you have not yet received an invitation to join K-CAMPUS.