

... control the invisible

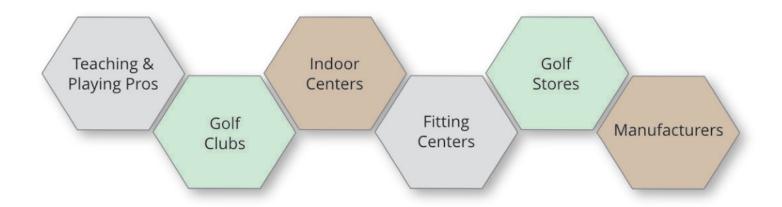




SAM BalanceLab is an innovative tool to evaluate balance and weight transfer during a golf swing or putt. The pressure signals and synchronized video are recorded in parallel and can be interactively analyzed in detail. The SAM BalanceLab software can be used with an ultra high resolution pressure plate or with a portable BodiTrak pressure mat.

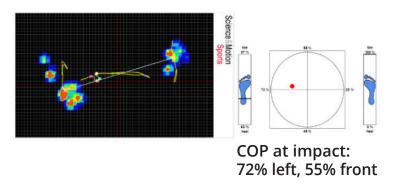
Poor balance and an irregular weight shift are often responsible for swing flaws resulting in an unsatisfactory outcome of the shot.

# Applications of SAM BalanceLab



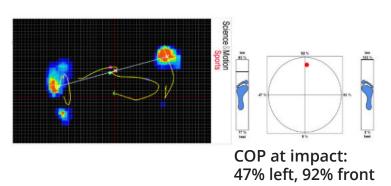
# How Balance Affects the Swing

Poor Balance – Frequent Trigger of a Miss-hit Golf Shot



#### WELL BALANCED SWING

On the left you can see a quite efficient weight shift on an US Tour player (Iron 5). Backswing and forward swing are in the same plane. At impact the COP ist 72% at the front foot with almost even heel/toe balance with 55%. The club head can freely accelerate through impact on the target line to create power and control.



#### WEIGHT TOO FAR TOWARDS TOE

Insufficient weight shift and uneven balance in heel/toe direction are common flaws in poor golf shots. The lower left picture shows the COP at impact with a lack of weight shift to the left with only 47% as well as a balance too much forward at the toes with 92%.

Improper balance will reduce the power at impact and may lead to an out to in swing plane, promoting a pull, slice or fade.

# SAM BalanceLab Hardware Options

### RECOMMENDED FOR FULL SWING ANALYSIS IN STUDIO

## Ultra High Precision Pressure Plate

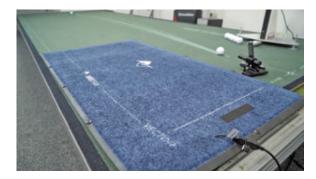
- Medical proven system
- Ultra high data precision
- 2560 pressure sensors high resolution
- 100 FPS data frequency
- · Solid plate metal frame
- Durable and long lasting technology
- USB 2 connection and power supply needed
- Ideal for fixed studio installation
- Dimensions: Length 96.7 cm / 38.1", width 60.6 cm / 23.9"
  (Measurement area: 88.5 cm / 34.8" x 60.3 cm / 23.7")



### RECOMMENDED FOR PUTTING OR OUTDOOR

### Portable and Wireless BodiTrak Pressure Mat

- Portable system, easy to carry in a bag
- Wireless interface (WiFI)
- Battery or USB powered
- Flexible mat, low height
- 60 FPS data frequency
- 512 pressure sensors
- Ideal for flexible use indoors and outdoors
- Dimensions: Length 116.5 cm / 45.9", width 60.5 cm / 23.8"
  (Measurement area: 95.5 cm / 37.6" x 45.5 cm / 17.9")



### **COMPUTER REQUIREMENTS**

- Windows 10/11 (64 Bit)
- i5/i7 CPU or comparable, 8 GB RAM or better
- SSD minimum 200 GB
- USB2, USB3 or Wifi (Boditrak wireless)

## What the Experts Say...



"The **SAM BalanceLab** has allowed me to see the invisible. Things that I would not be able to see on video or with the naked eye are now very apparent to me. Balan-

ceLab is an incredible piece of equipment to understand why people move the way they do. My only regret is I didn't have it 25 years ago."

**Martin Hall** 2008 PGA of America National Teacher of the Year



"As someone who has been trained in Biomechanics and with over 40 years of teaching experience, I can honestly say that the **Balance-Lab** is the most accura-

te piece of equipment on the market. It not only analyzes the ground reaction forces accurately but also arms you the teacher to interpret the information efficiently."

**Dr. Jim Suttie** 2000 PGA National Teacher of the Year

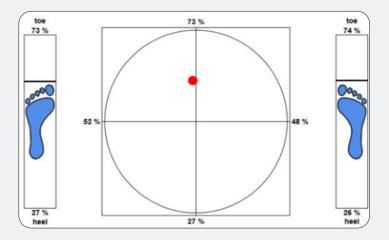
## SAM BalanceLab Editions

Feature	Pro Edition	Ultimate Edition
Club type selection	•	•
Automatic hit detection (Microphone is provided)	•	•
Impact detection and automatic data crop	•	•
Extended reports	-	•
Improved camera interface	•	•
Performance parameters	-	•
Extended data curves	-	•
Automatic feet detection and stance analysis	-	•
Surface protection turf	-	•
Launch monitor integration (Trackman/Flightscope/Foresight)		•

## SAM BalanceLab Data & Result Views

### DIFFERENT DATA VIEWS FOR COMPLETE ANALYSIS

Data views are presented in screen graphics and as printable PDF reports. Reports can also be sent by Email directly from the software.



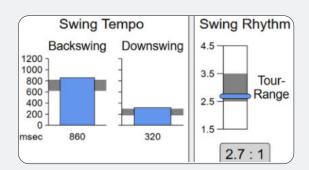
Total body balance and detailed left/right foot balance



Detailed balance data for all swing positions



Launch monitor data view



Swing tempo/rhythm

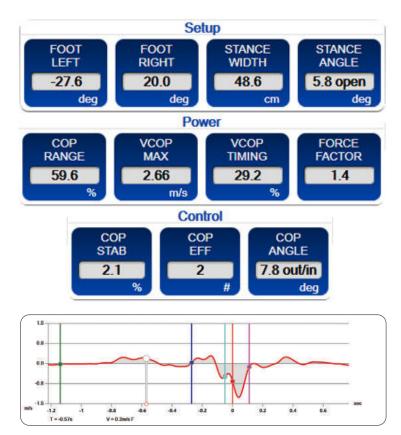
## SAM BalanceLab 3 Ultimate Edition

# PERFORMANCE PARAMETERS AND EXTENDED DATA CURVES

The SAM BalanceLab 3 Ultimate Edition introduces innovative *Performance Parameters* and *extended data curve diagrams* to objectively analyze ground reaction forces in a golf swing.

The Performance Parameters are grouped in three functional categories for SETUP, POWER and CONTROL, and are calculated based on corresponding data curves for COP position, COP movement and downforce.

Using the Performance Parameters and the extended data curves in combination with the launch monitor data is perfect to systematically optimize the individual weight transfer characteristics in relation to distance, ball flight and consistency.

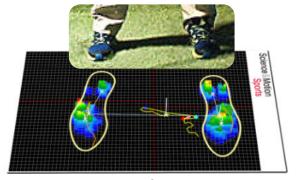


Data curve example: front/back COP movement

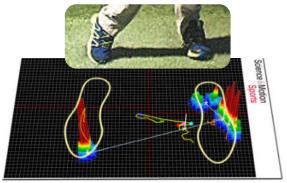
#### **AUTOMATIC FEET DETECTION**

Another BalanceLab 3 feature is the automatic feet detection: In setup position or during a stable phase when the player stands on the plate without moving, the position of the feet will be detected and stored. Based on this setup position the software can display the feet in the graphics and the user is able to see what changes appear in foot position during the swing (see examples on the right).

Besides this the alignment of each foot, the stance direction and the stance angle will be analyzed and displayed in the Performance Parameter view. As additional advantage the separation lines (split position) will be set automatically in the feet detection process.



Foot positions in player setup



Foot positions in "follow through"