





## Motion Capture

At ADFJ, motion capture in sports is a technique for recording and analyzing the movements of all athletes during training. It involves using devices such as sensors, cameras, or tracking systems to capture movements in real-time or reproduce them as 3D models. Motion capture can require a significant financial investment, particularly in terms of equipment and software, so having access to it here in Asnières is a real advantage.

#### For who?



Motion capture primarily targets **athletes** to enhance their technique, correct errors, visualize their performance, compare their technique with that of experts, and thereby progress in their practice.

But also for coaches to analyze the performance of their athletes, provide accurate and tailored feedback, correct technical errors, adjust training accordingly, and thereby optimize training to enhance their performances.



### What are the advantages?





- Technique improvement:
  - Error correction
  - Enhanced precision
- Training optimization:
  - Identification of areas for improvement
  - Adaptation of exercises accordingly
- Injury prevention:
  - Identification of incorrect postures
  - Implementation of preventive measures



Motion capture can be used to individually track the performance of each athlete over time, in order to identify progress made and areas for improvement. It may be necessary to develop protocols for individual performance tracking based on motion capture data, and integrate this data into the evaluation and training planning processes.



# And for people with disabilities?



Motion capture systems can help athletes with disabilities to better understand their gestures, posture, and balance, and make adjustments to their technique accordingly.

The use of motion capture can assist these individuals in gaining a better awareness of their abilities and progression. It can enhance their self-confidence by showcasing their achievements and progress, thereby encouraging them to continue training and advancing in their sports practice.

This can contribute to fostering inclusion and social participation by enabling them to fully participate in training sessions and club activities.

ADFJ is developing a laboratory-based perception system for individuals with visual impairments or blindness.

## B.o.B: Biomechanics Of Bodies

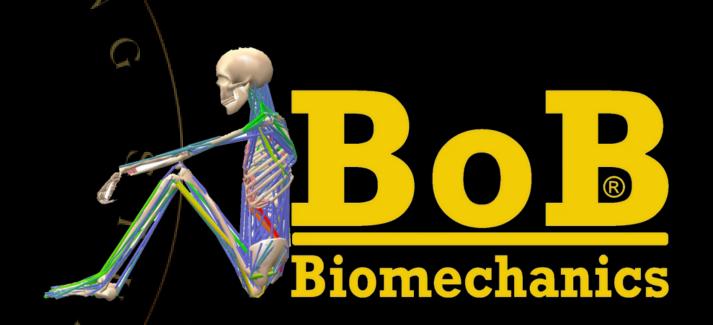


Dans notre Digital Fighting Studio nous utilisons B.o.B : Biomechanics Of Bodies

C'est un package d'analyse biomécanique composé d'un modèle musculo-squelettique humain et qui intègre les données générées par notre solution de capture de mouvements.

Par ce biais nous pouvons visualiser numériquement les tensions articulaires et musculaires et remédier éventuellement par une correction des mouvements.

La solution nous permet également de déterminer l'intensité de travail d'un muscle ou l'amplitude d'une articulation. Ces solutions sont utilisées entre autres, dans nos séances de gymnastique adaptée pour les personnes en institutions spécialisées, médicalisées.



### The playful aspect





The playful aspect can also be an advantage of using motion capture in sports, both for athletes with disabilities and other practitioners.

Motion capture systems can be used to create fun and interactive activities, making training sessions more enjoyable and motivating.

In the near future, motion capture may offer exciting opportunities by allowing athletes to train in realistic and interactive virtual environments that replicate the sensations and conditions of their sports practice.

### Contacts



