

European Gymnastics Webinar (WAG)

6 September 2026 / 17:00 - 18:30 (CEST)



Kawahito Ayako



FUJITSU

川人亜矢子 (JPN)

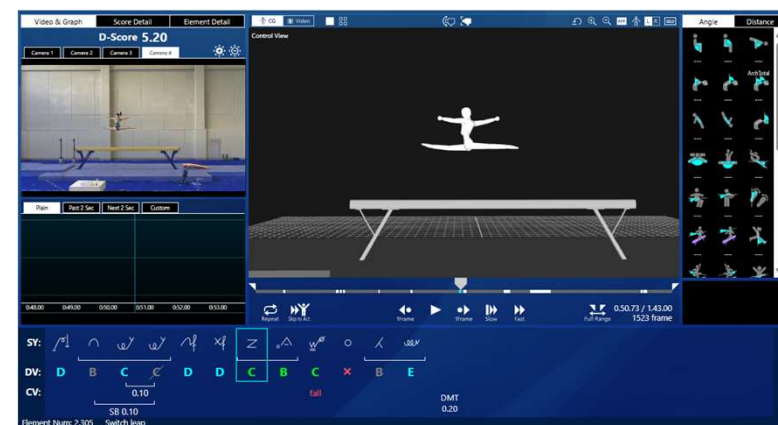


Manager



FUJITSU LIMITED

Global Solutions Business Group
Human Digital Twin Division



Element recognition and App (UI) Development Manager of **JSS**
【Judging Support System】

- former **gymnast**
- current **judge** (WAG/MAG) [MAG : Japan's certification only]
 - FIG International Judges (Cycle 2017-2021) [WAG]
 - FIG International Judges (Cycle 2022-2024) [WAG]
 - FIG International Judges (Cycle 2025-2028) [WAG]

Judging Support System (JSS)

Fairness

Why JSS Matters :

Artistic gymnastics continues to evolve, with gymnasts performing increasingly complex and dynamic elements.

In this increasingly complex environment, judges are required to provide accurate and consistent judging within a very short time. World Gymnastics is committed to safeguarding the integrity of the sport and ensuring that all gymnasts are fairly evaluated according to the same criteria.

JSS was developed to support this goal by providing judges with additional objective information when evaluating routines.

In addition, in training, JSS helps deepen the understanding of both gymnasts and coaches by visualizing the improvement points of elements and incorporating objective feedback—based on the criteria—into daily training. This enables gymnasts to refine elements more efficiently and coaches to provide more effective instruction.

By applying the same criteria in both competition and training, JSS not only enhances the fairness and consistency of judging but also contributes to gymnast development and the further advancement of gymnastics.

Transparency

Consistency

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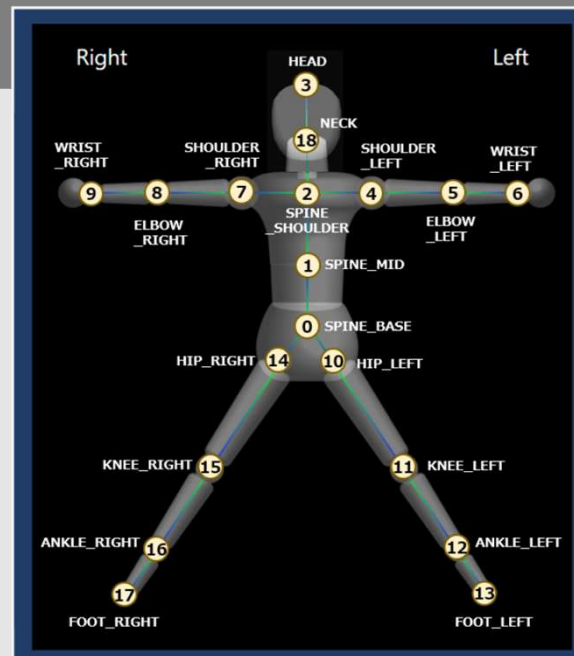
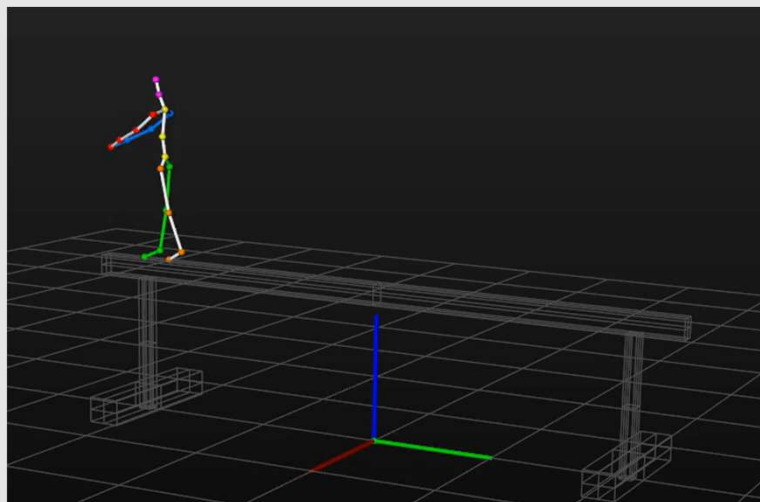
Overview : Judging Support System (JSS)

Data acquisition



4 cameras
(8 for Floor)

Skeleton(joints) Recognition



Approximately
10 seconds
after routine
finishes...



Element Recognition



JSS uses threshold-based programming for element recognition according to Code of Points.

JSS is not a "generative AI" system in which the system learns from input data and the output changes (grows) over time.



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[illegible]

Code of Points 2025-2028

508 NEMOUR Kaylia ALG [Qualifications] Uneven Bars

Video & Graph Score Detail Element Detail

D-Score 7.10

Camera 1 Camera 2 Camera 3 Camera 4

Plain Past 2 Sec Next 2 Sec Custom

00 0:21:00 0:22:00 0:23:00 0:24:00 0:25:00 0:26:00

Control View

Angle Distance Element

2D 10 100

0.23.16 / 0.47.00 696 frame

Replay Skip to Act 1frame 1frame Slow Fast Full Range

DV: A E G D D D E D E A D D

CV: 0.20 0.20 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10

DMT 0.20

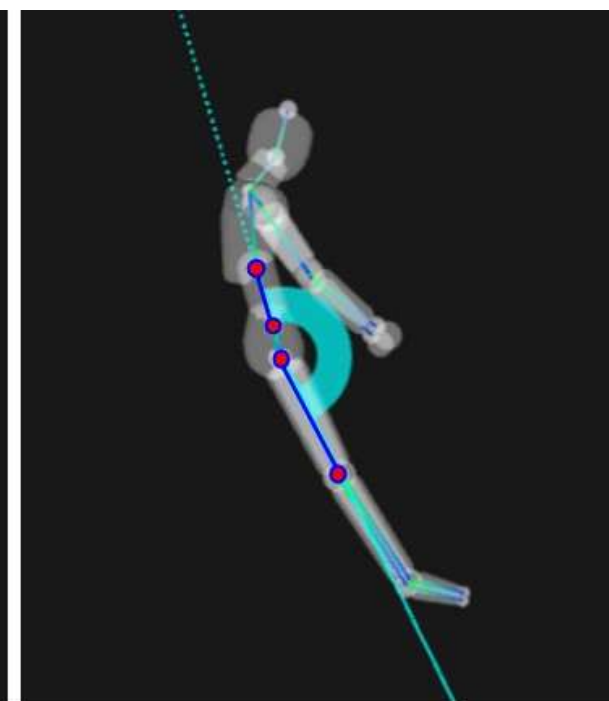
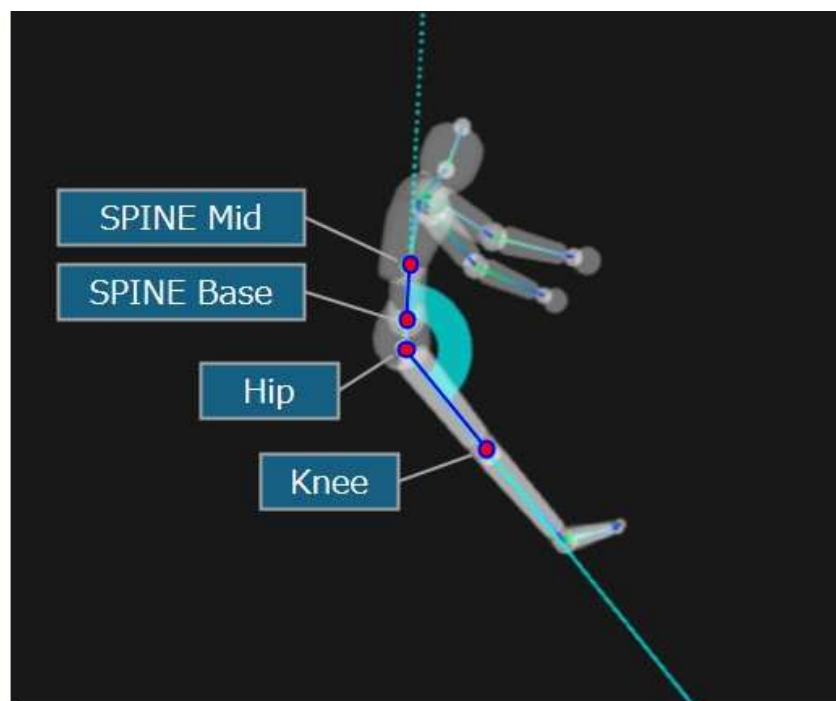
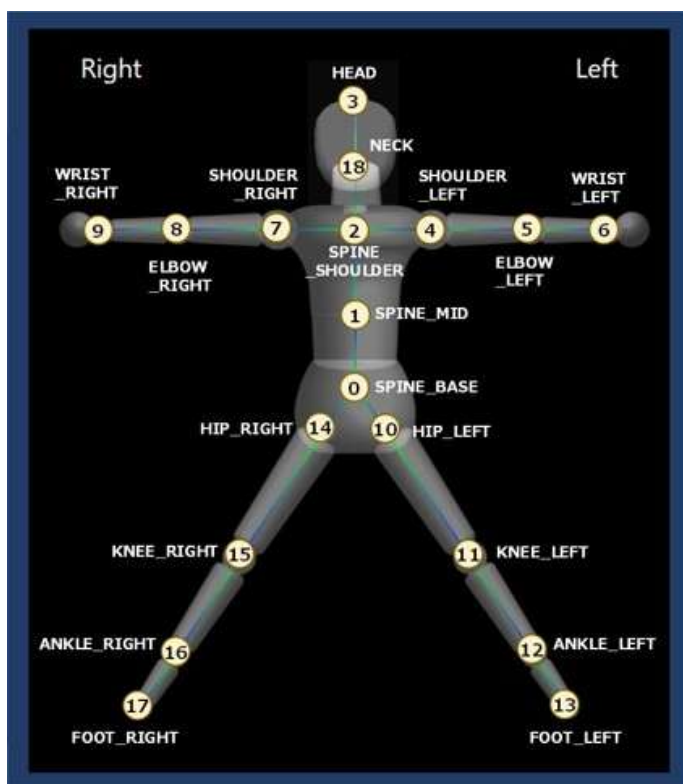
Element Num: 3.404 [Pak] Hang on HB, facing LB - swing fwd, salto bwd stretched between bars to clear support on LB

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JSS defines the skeleton by identifying joint points and connecting them with straight lines. The hip angle is measured as follows:



Hip angle (Body bend) [Measurement method]

Hollow position appears as "Rounded posture" because the chest also bend inward in addition to a slight bend in the hips (less than 30°).

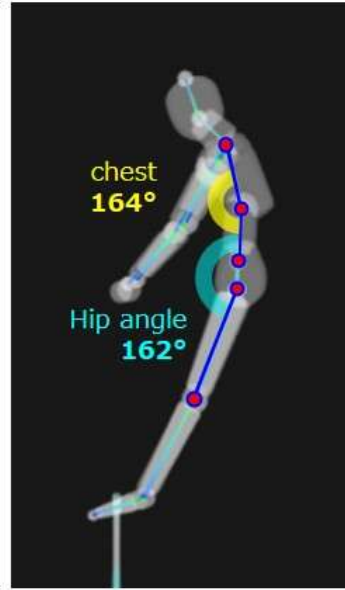
* Just because it is Hollow position doesn't mean there's no bend in the hips. (Except for sample ③)

* In JSS, the chest angle is not used to measure the hip angle for recognizing stretch and pike.



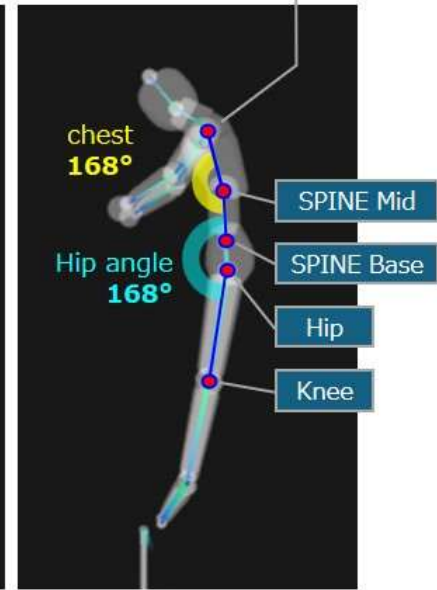
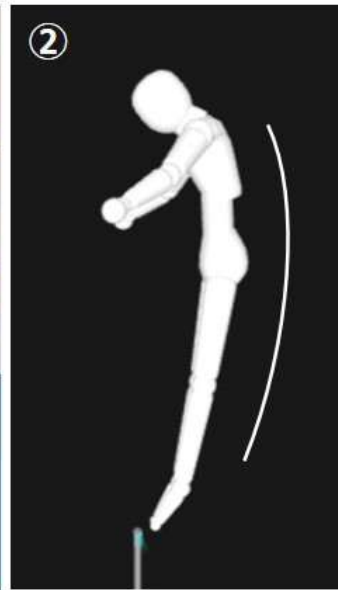
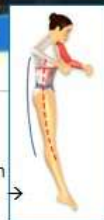
Jakarta_Q-508

Bib#508's hollow position is of this type. → → → →



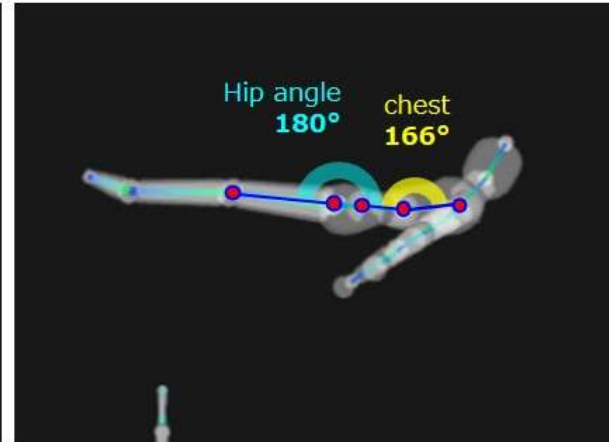
Antwerp_TF-515

Bib#515's hollow position is of this type. → → → →



Antwerp_AF-446

Bib#446's hollow position is of this type. → → → →



Since the hip angle of Sample ③ is 180° , you can see that the angle for Sample ① and ② are not 180° .

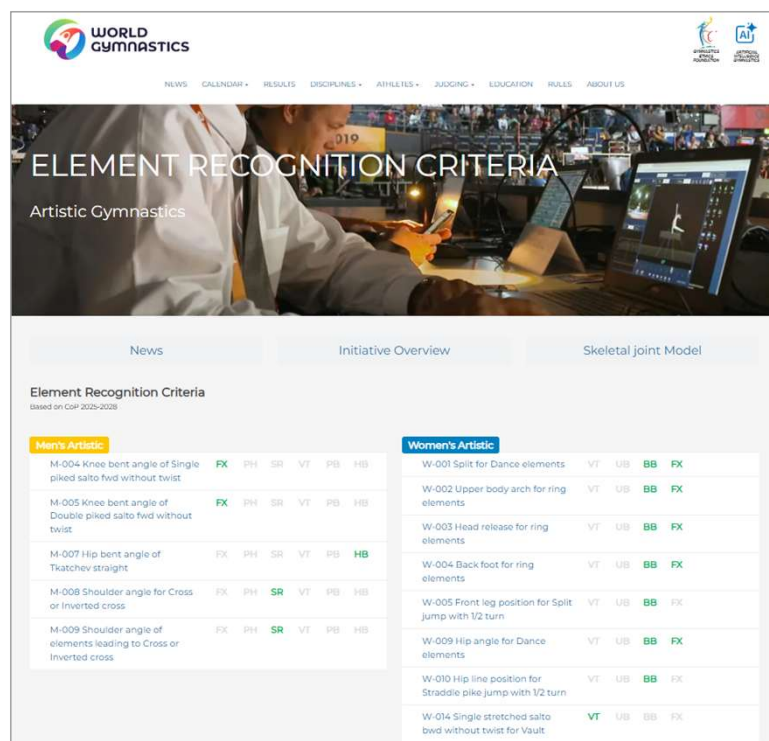
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ELEMENT RECOGNITION CRITERIA

[HTTPS://WWW.GYMNASTICS.SPORT/SITE/PAGES/ELEMENT-RECOGNITION-INDEX.PHP](https://www.gymnastics.sport/site/pages/element-recognition-index.php)



Let's check it now!!



This microsite can also be viewed on smartphones.