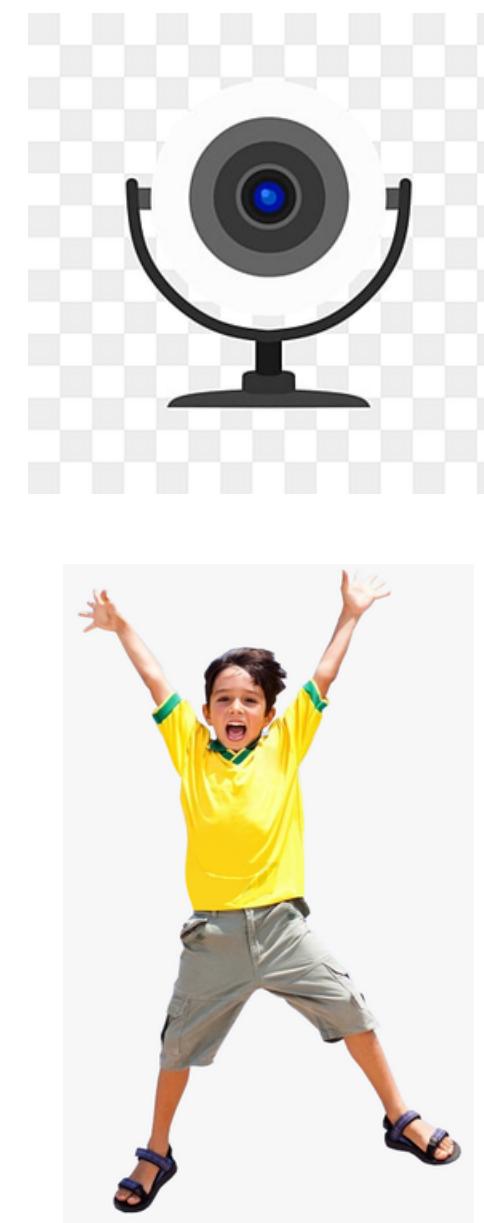


สวัสดีคับ



เจ๊ก สรียาน

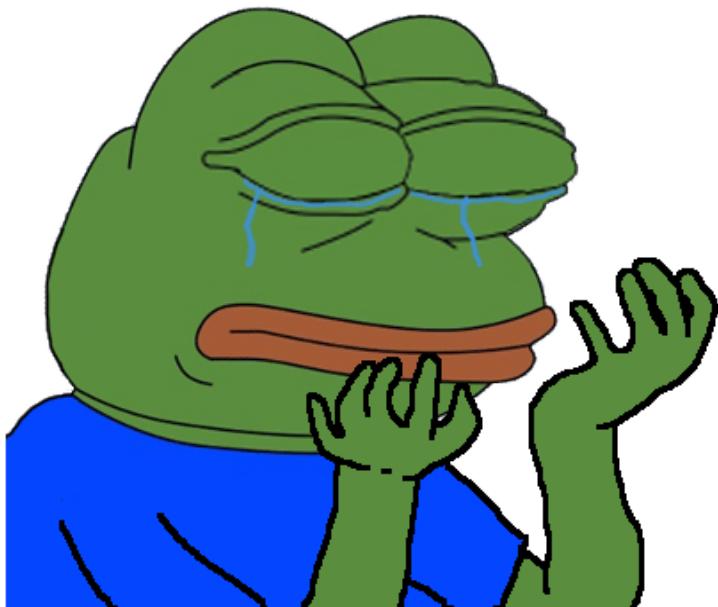
ໂຈຍີ້ຄ້ວວໄຣ?



Subway PC

Control เกม Subway ດ້ວຍກ່າທາງ

เล่นเกม?

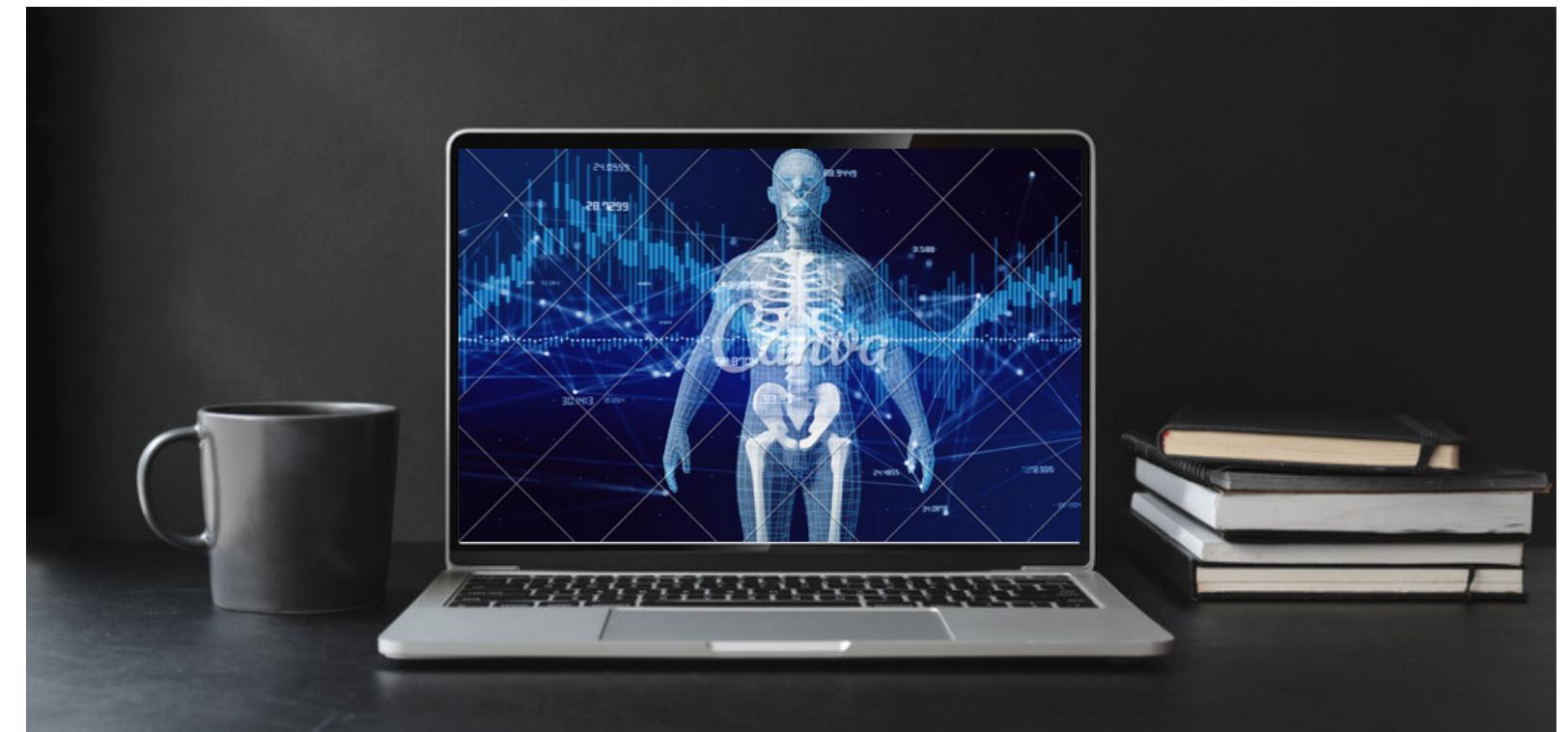
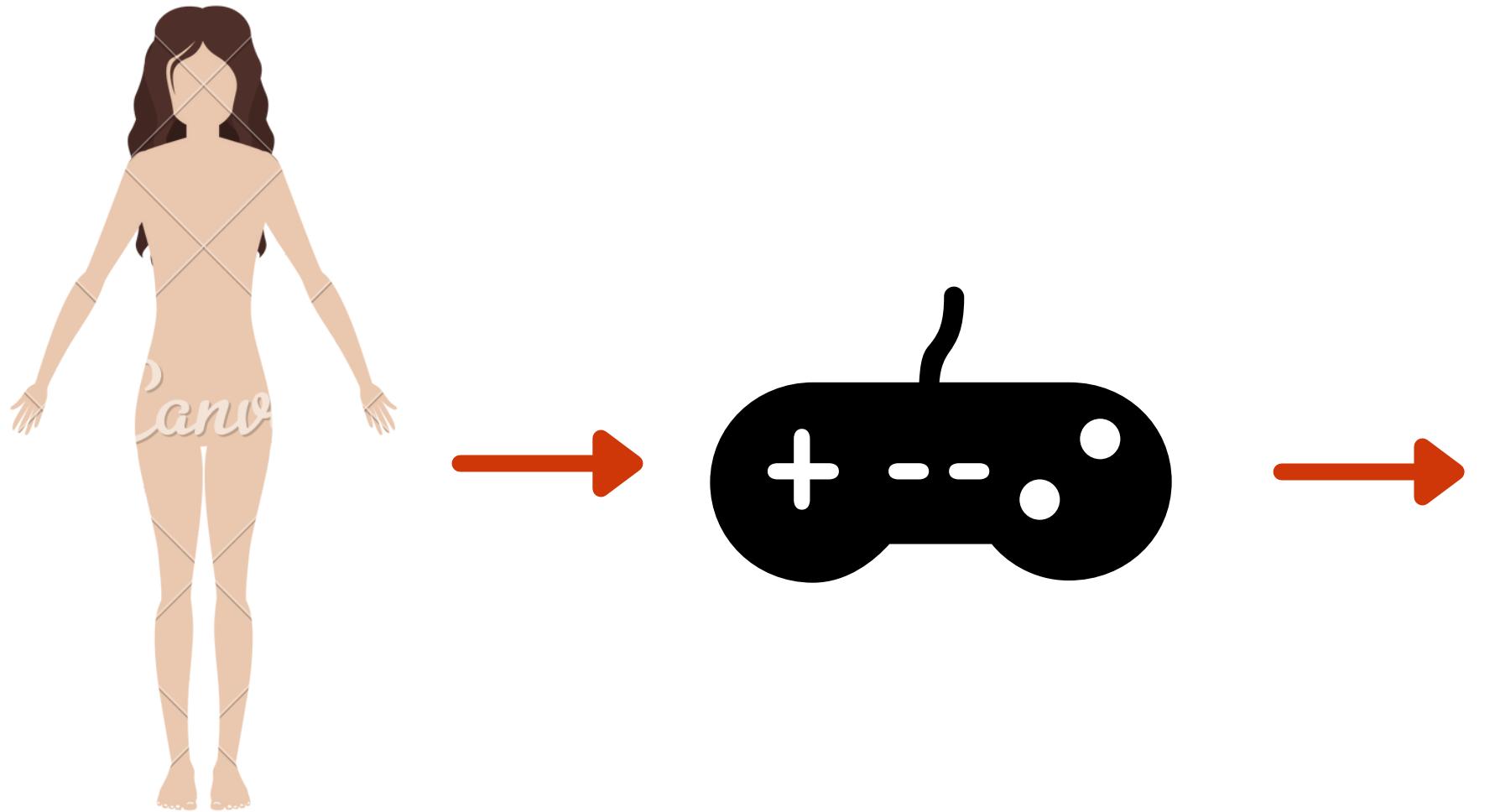


The Microsoft Store interface is shown, displaying the product page for the game "Subway Surfers" by SYBO Games. The main page includes a large thumbnail of the game's art, a brief description, and a "Screenshots" section with several smaller screenshots. An "Amazon Appstore" preview window is overlaid on the Microsoft Store interface. The preview window has a dark header with the Amazon logo and the text "amazon appstore Preview". In the center of the preview window, it says "The Amazon Appstore is not currently available in your country." There is also a "Sign Out" button in the top right corner of the preview window.

เปลี่ยนเกม



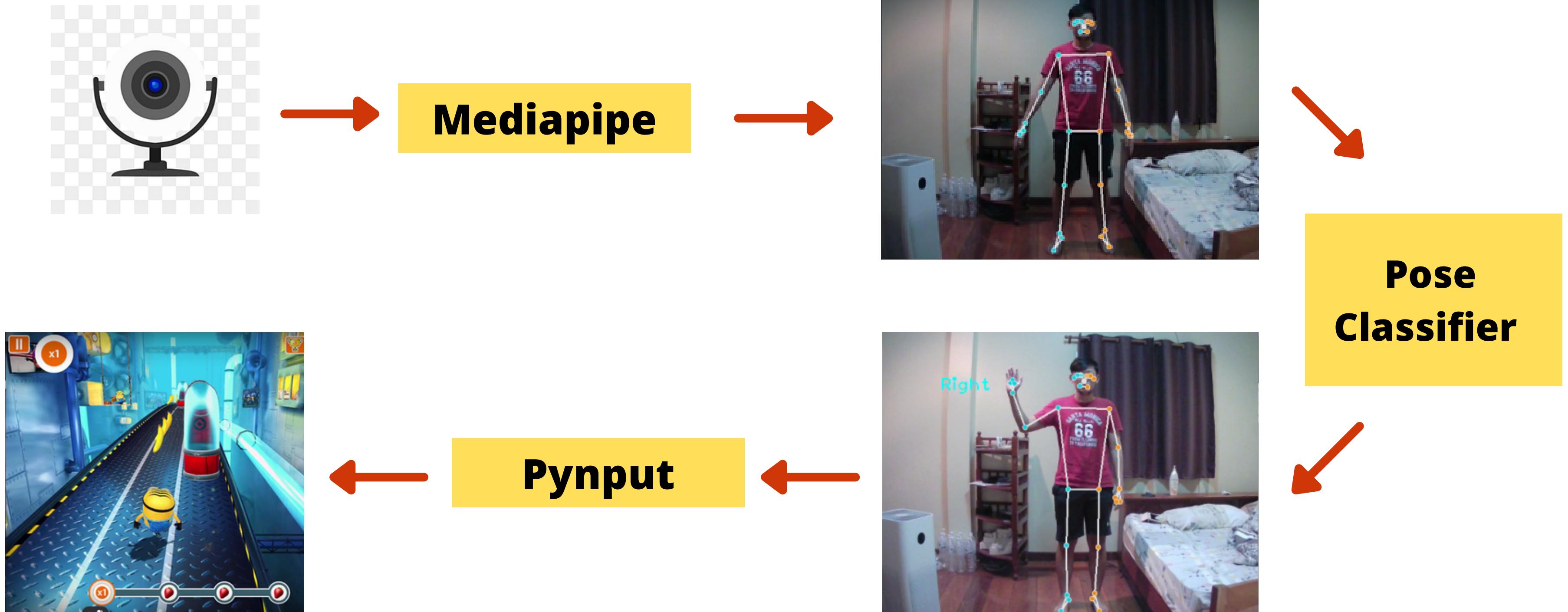
ກຳໄປນໍາສຸນໃຈ?



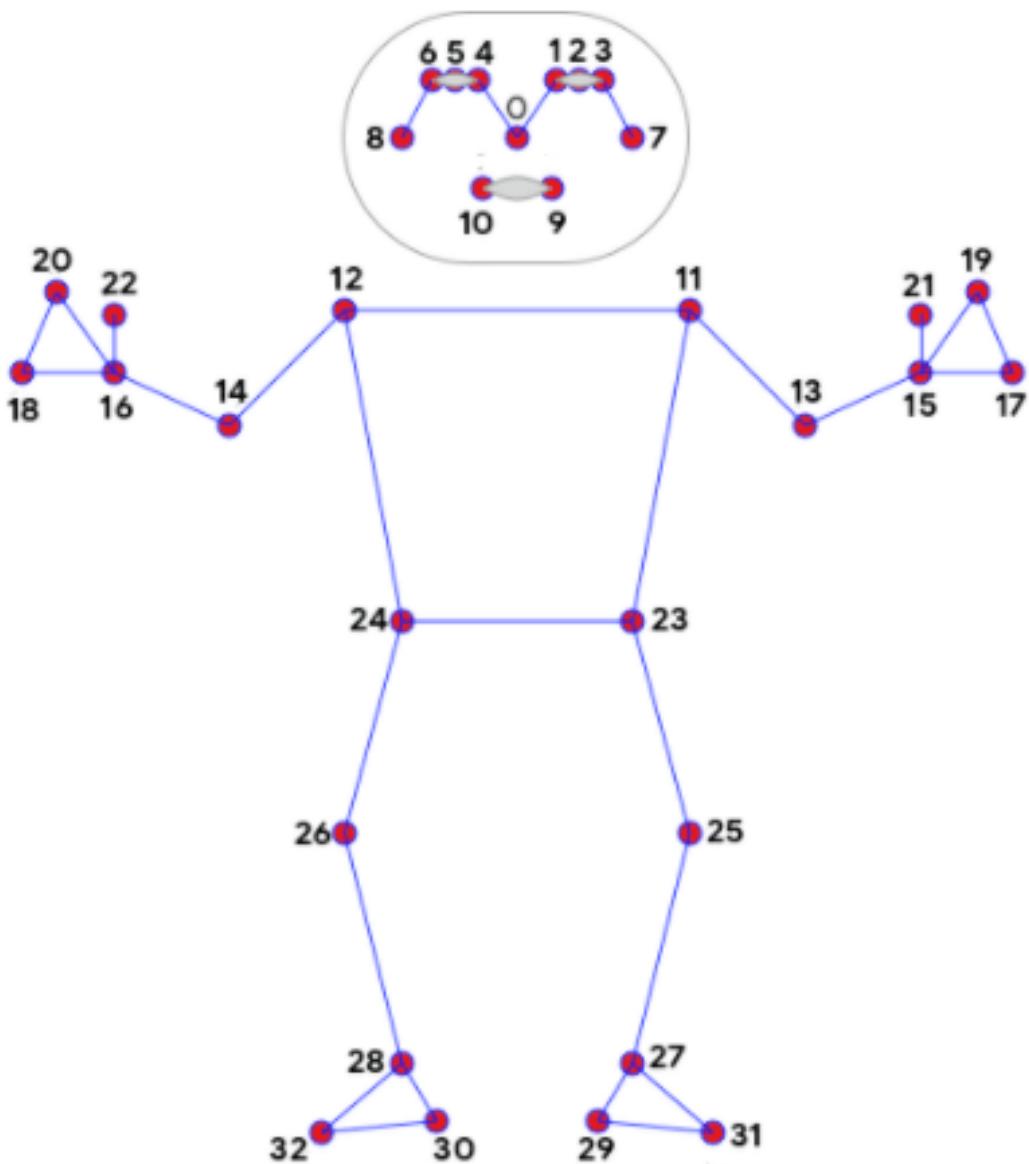
ทำใบหน้าสวนใจ?



วิธีการของเราเป็นอย่างไร



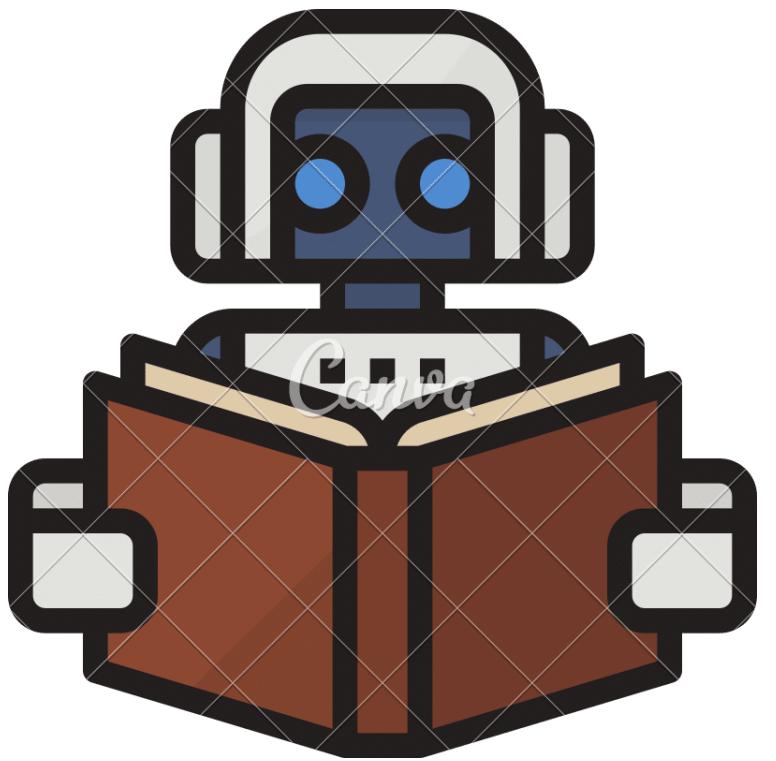
MediaPipe



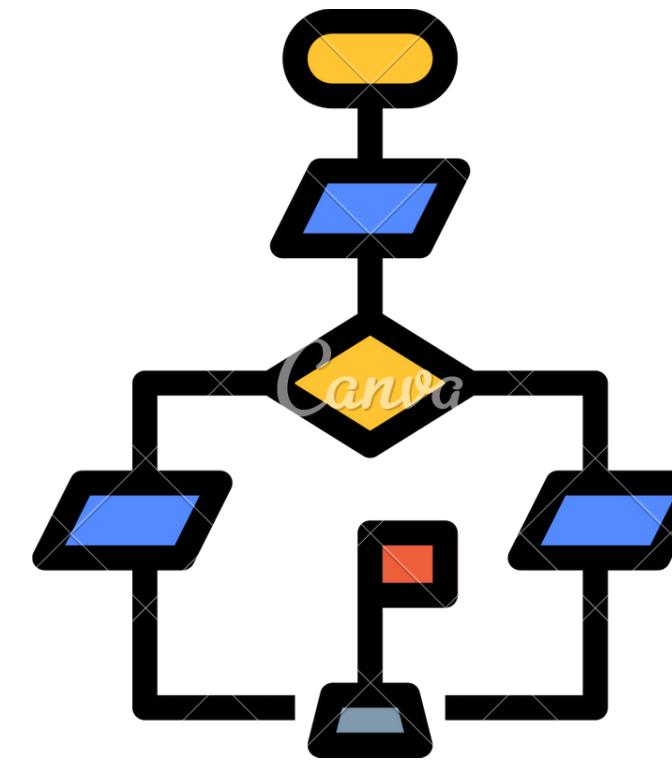
OpenPose
 MoveNet

- | | |
|--------------------|----------------------|
| 0. nose | 17. left_pinky |
| 1. left_eye_inner | 18. right_pinky |
| 2. left_eye | 19. left_index |
| 3. left_eye_outer | 20. right_index |
| 4. right_eye_inner | 21. left_thumb |
| 5. right_eye | 22. right_thumb |
| 6. right_eye_outer | 23. left_hip |
| 7. left_ear | 24. right_hip |
| 8. right_ear | 25. left_knee |
| 9. mouth_left | 26. right_knee |
| 10. mouth_right | 27. left_ankle |
| 11. left_shoulder | 28. right_ankle |
| 12. right_shoulder | 29. left_heel |
| 13. left_elbow | 30. right_heel |
| 14. right_elbow | 31. left_foot_index |
| 15. left_wrist | 32. right_foot_index |
| 16. right_wrist | |

Pose Classifier



కుశల



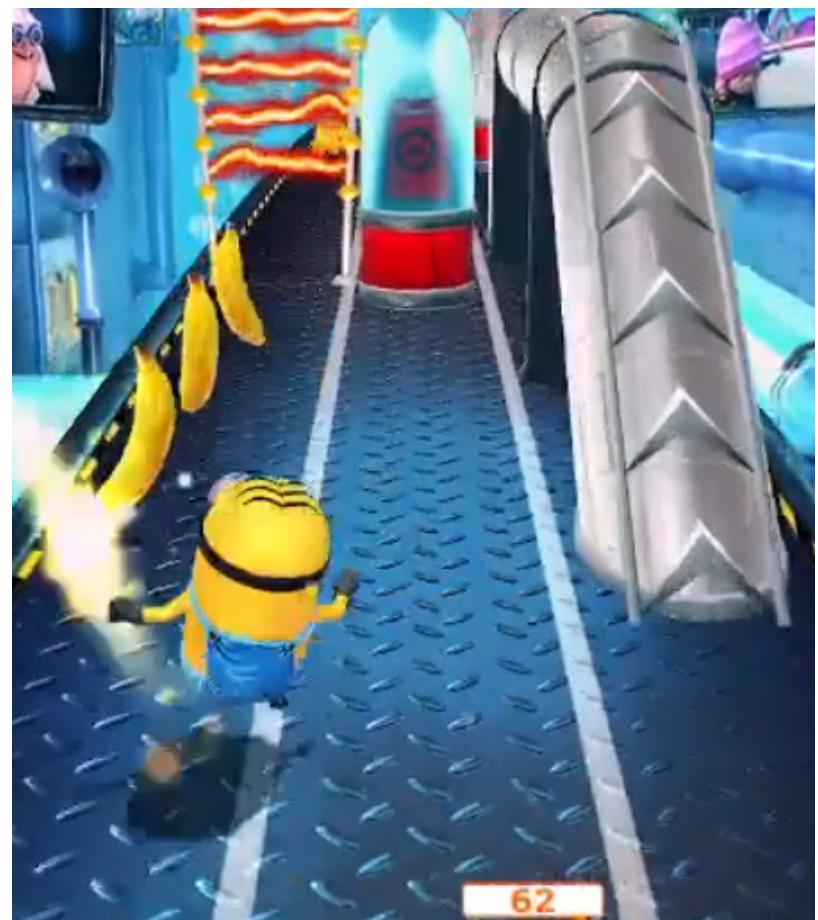
1
Canva

ເຖິງມີເອກະພາບ

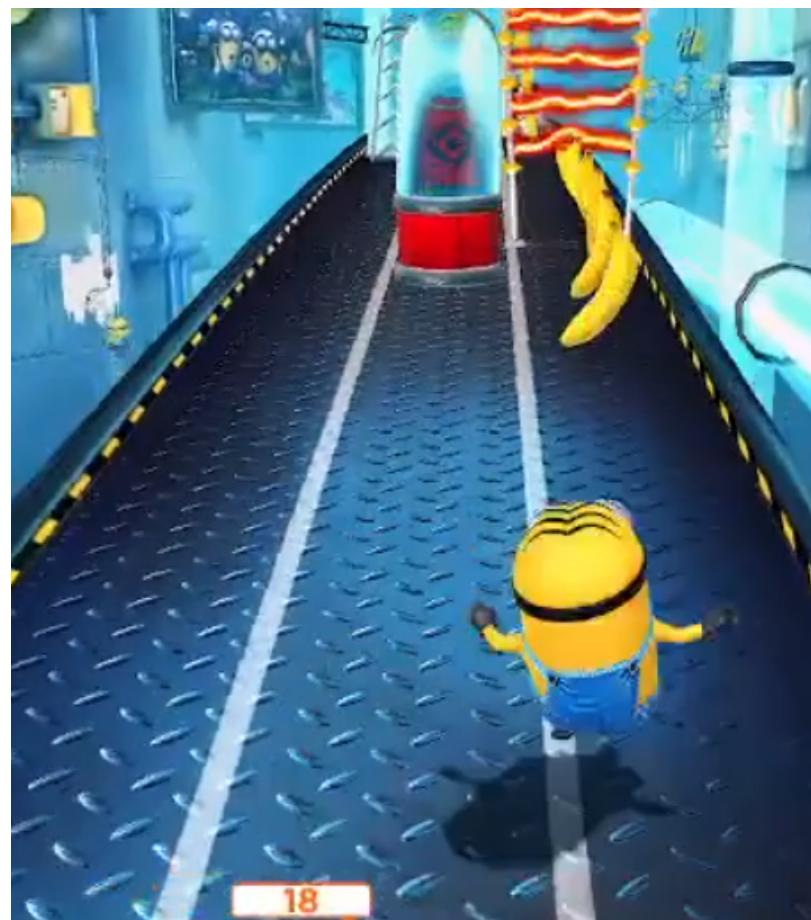
2

ເຂົ້າໃຈ

Pose Classifier



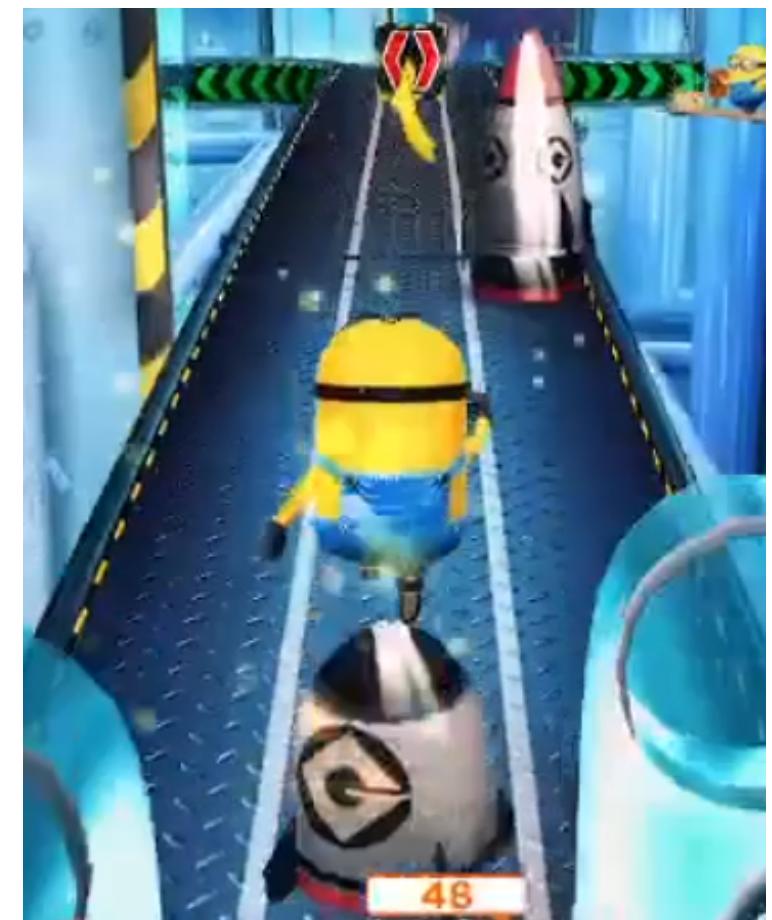
ซ้าย



ขวา

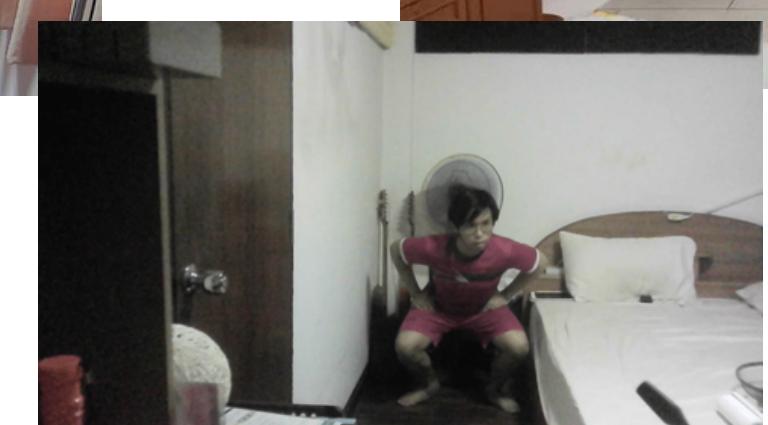
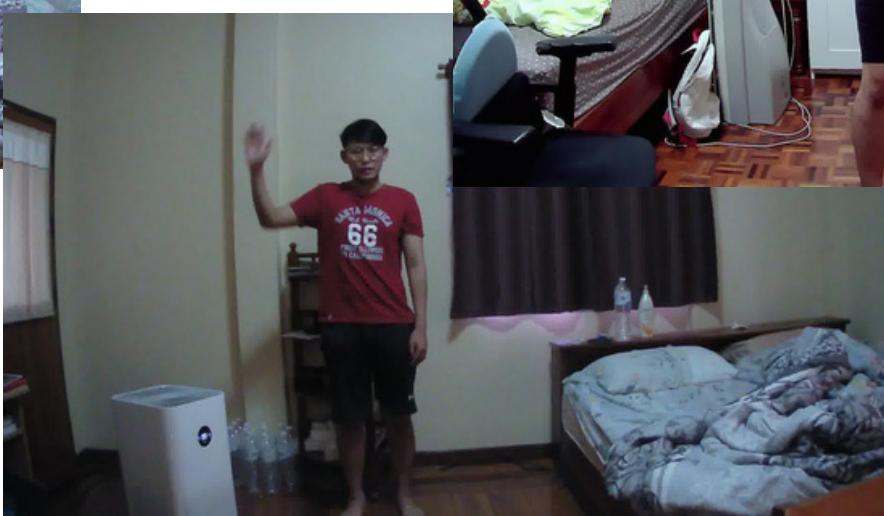


ย่อ



กระโดด

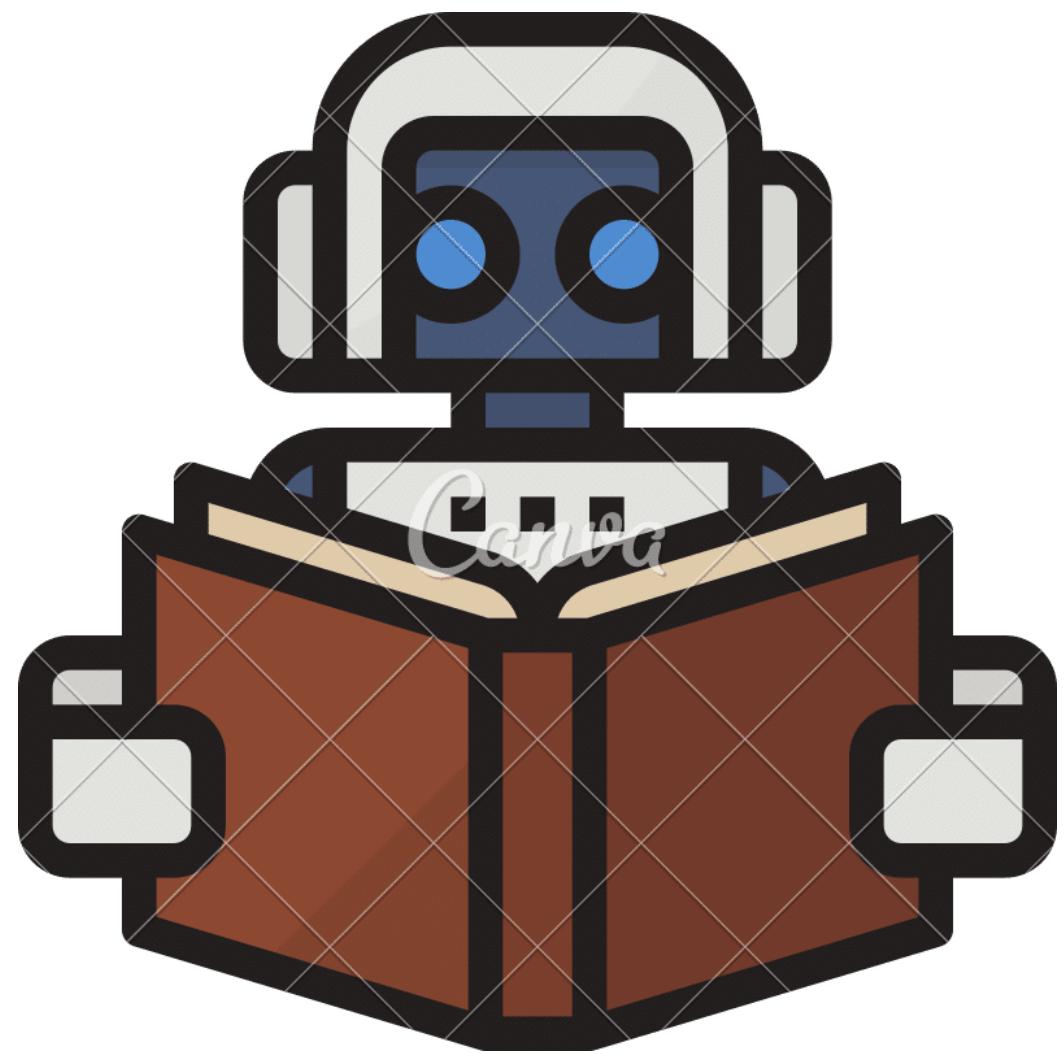
Pose Classifier: Dataset



ข้าราชการ

นาย

ย่อ



1
Canva

ML Models

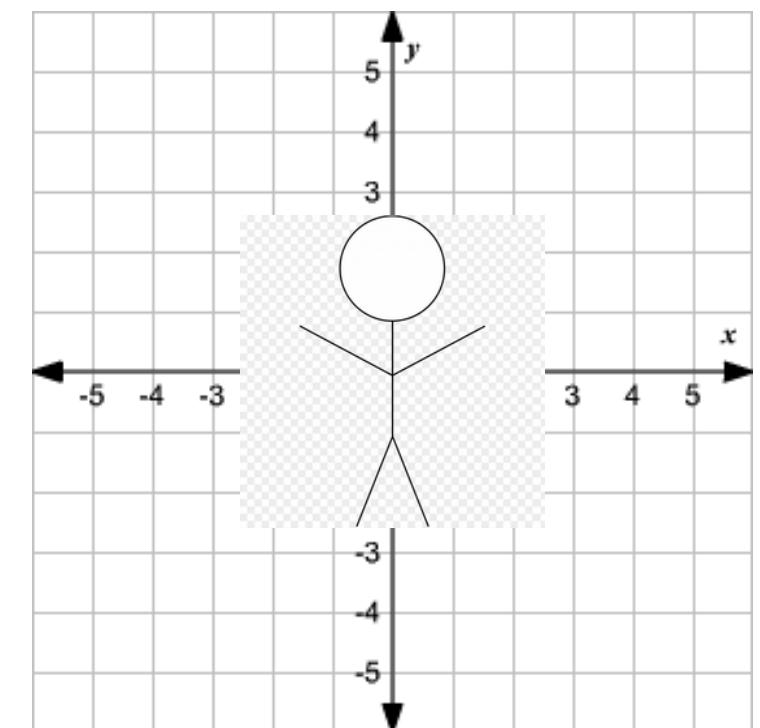
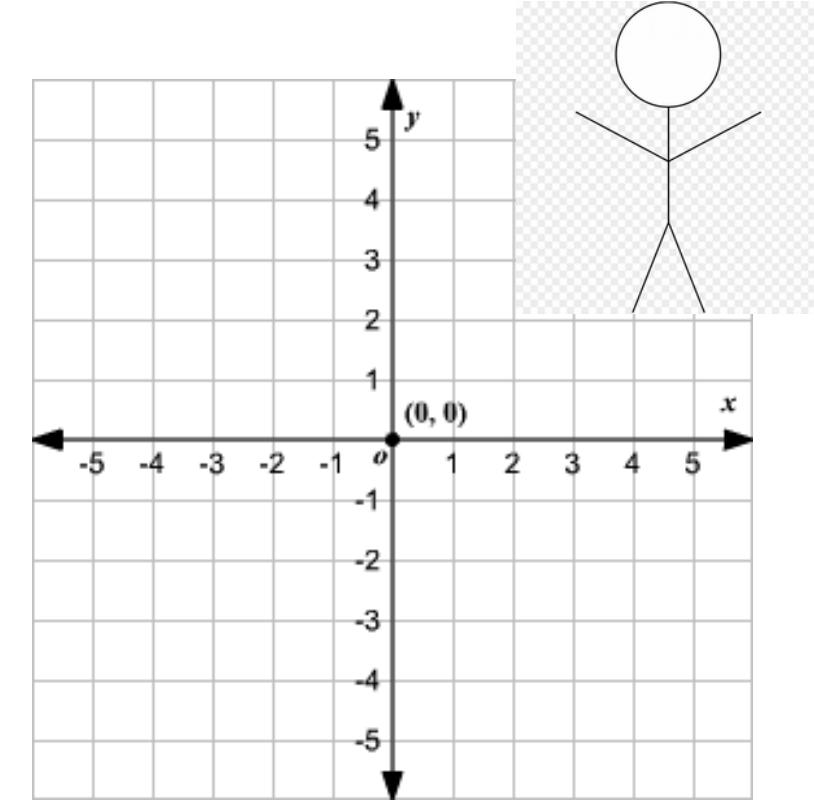
ML Models

XGBoost

KNN

**Translation
Variant**

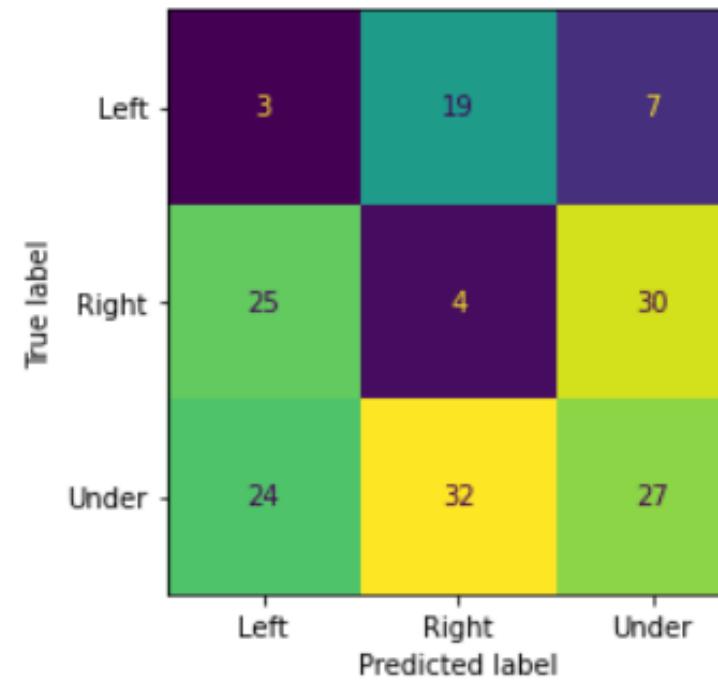
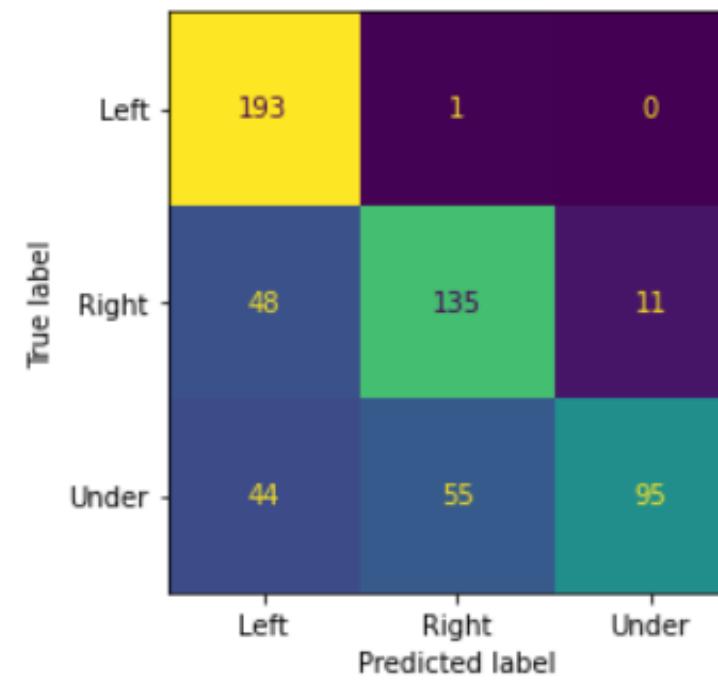
**Translation
Invariant**



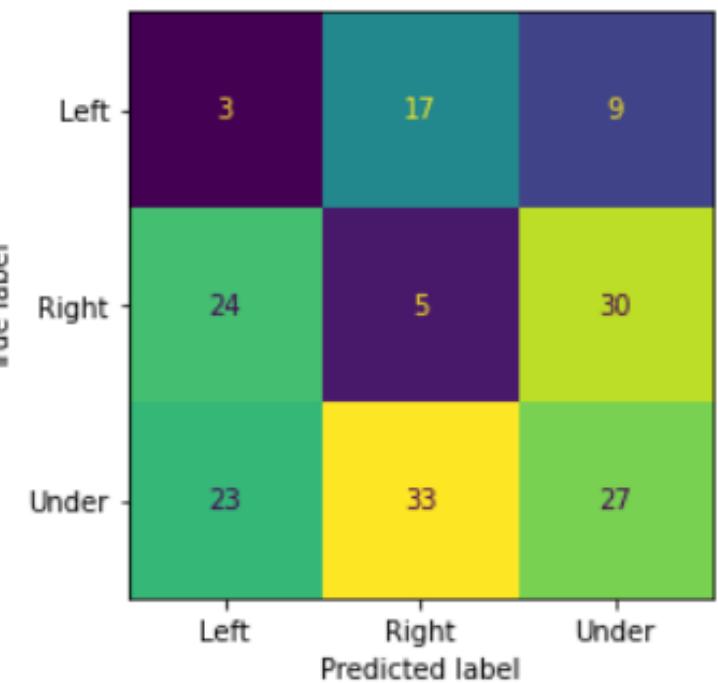
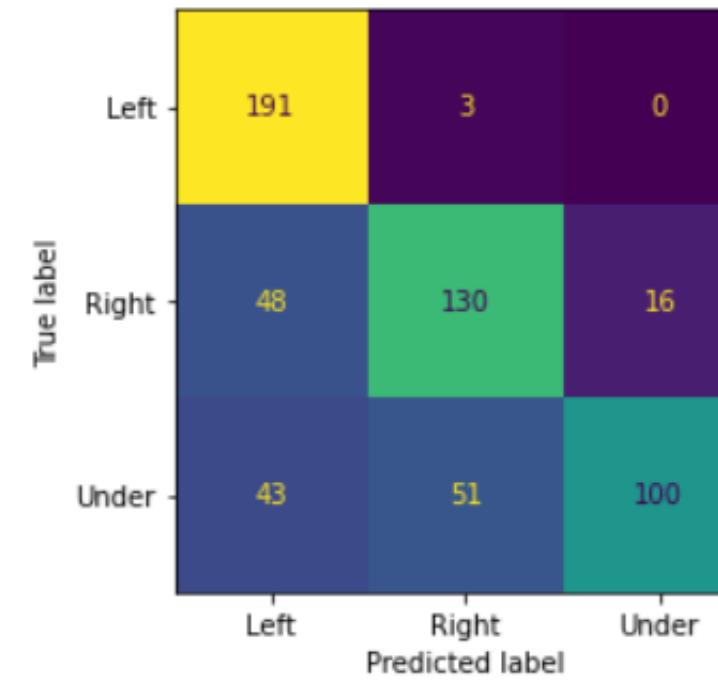
ML Models: Evaluation

XGBoost

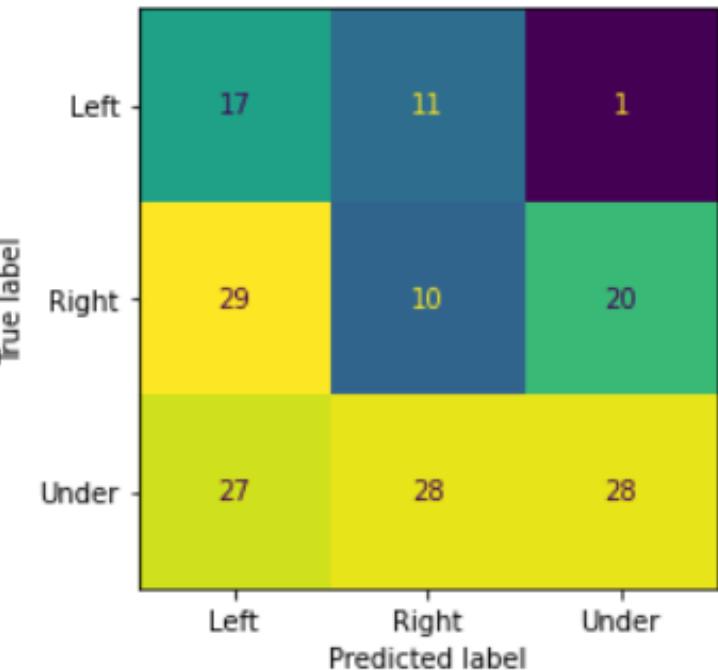
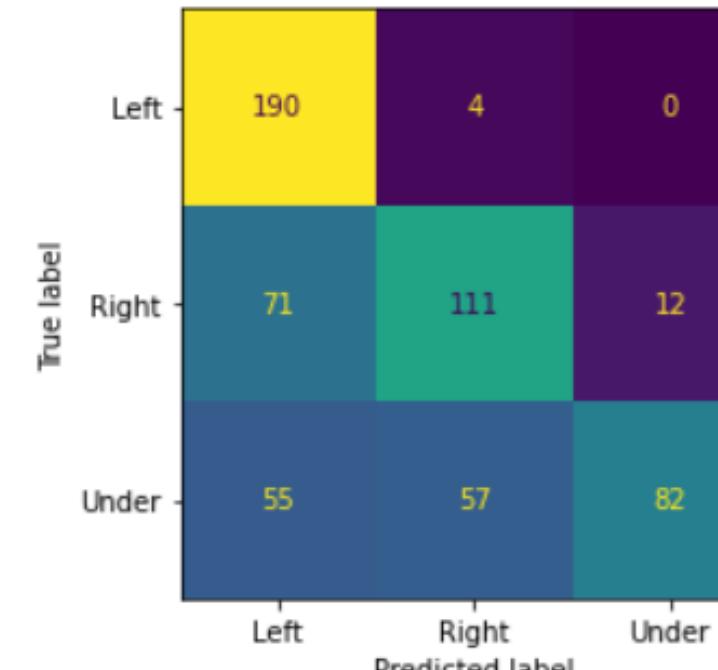
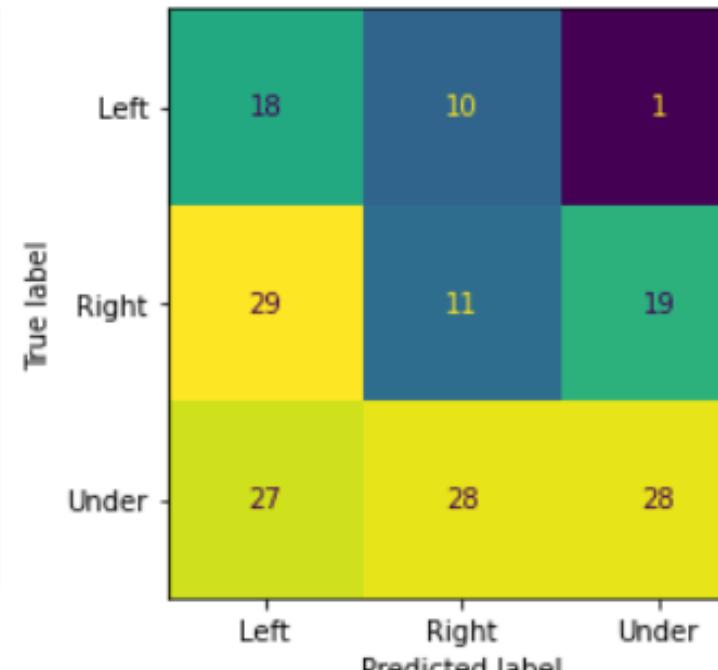
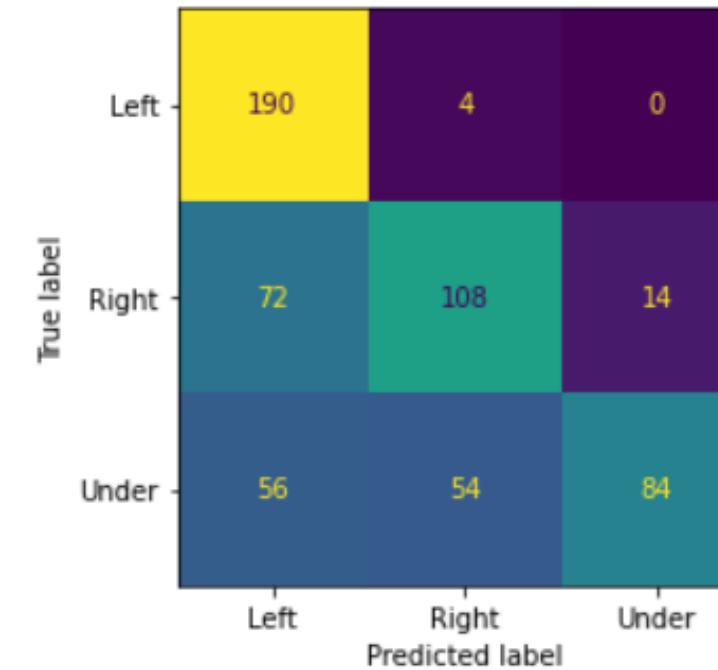
Translation Variant

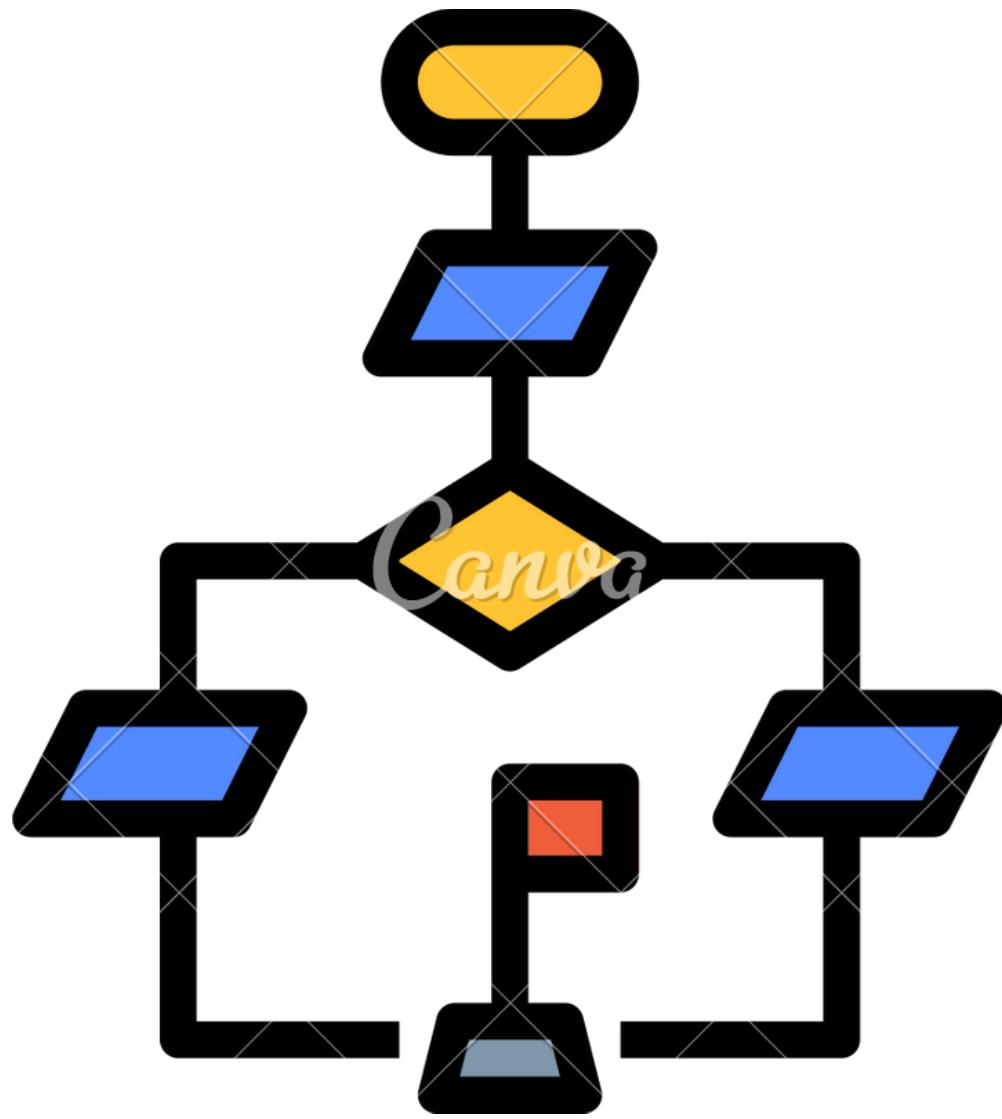


Translation Invariant



KNN





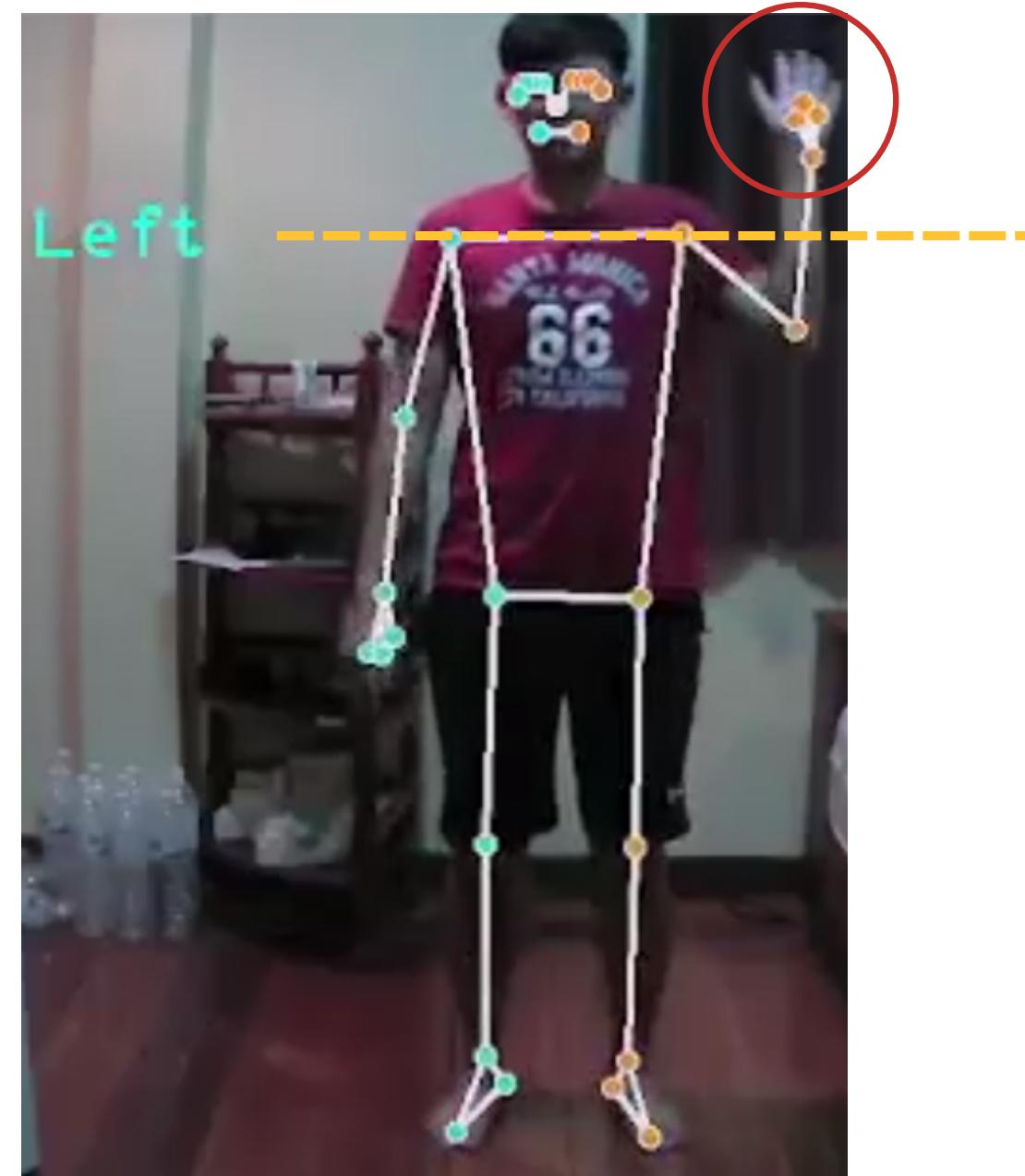
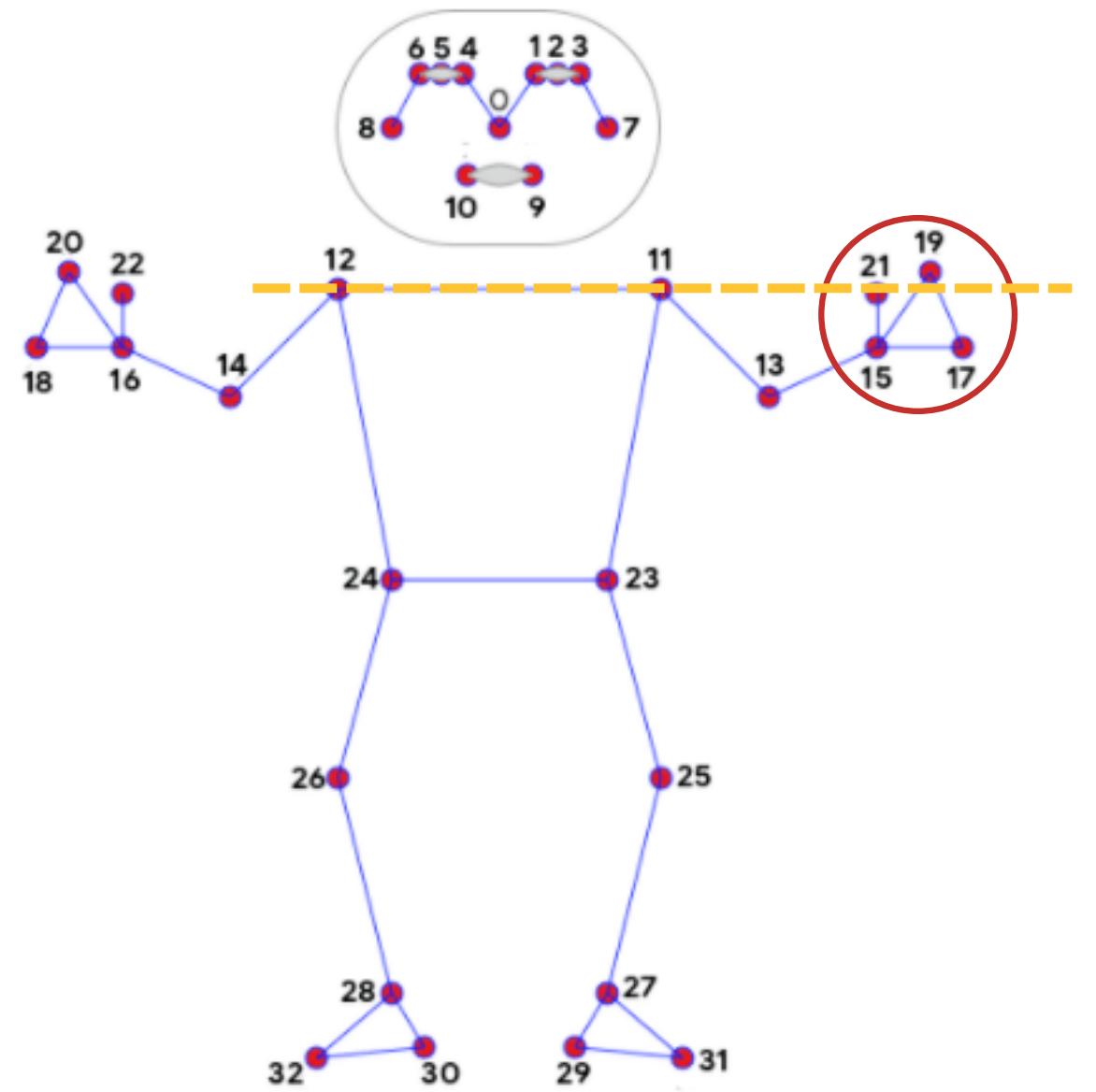
2

Rule-based Algorithm

2
Canva

The Canva logo is located in the bottom right corner of the slide. It consists of the word "Canva" in a white, lowercase, sans-serif font, positioned inside a white circle.

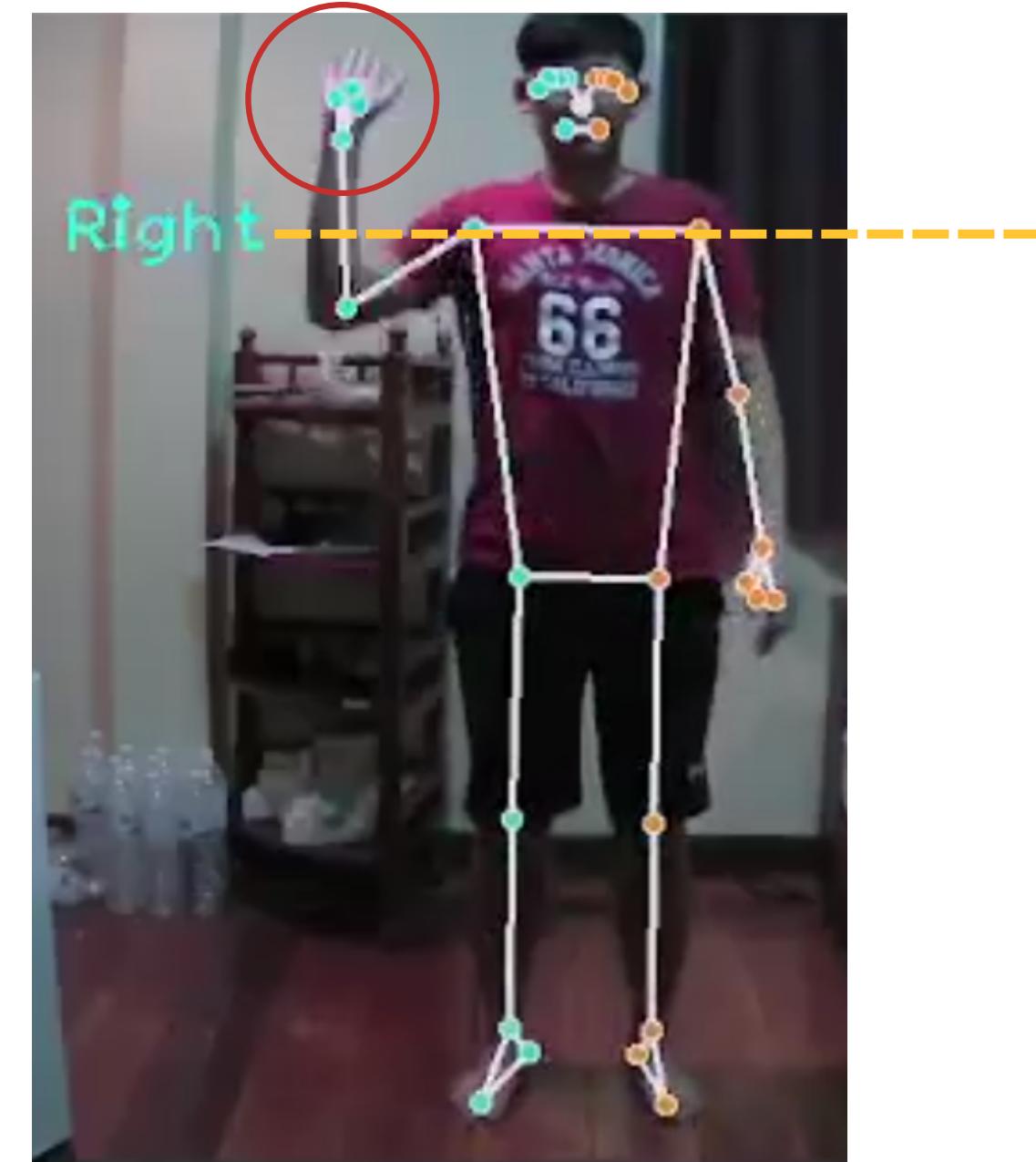
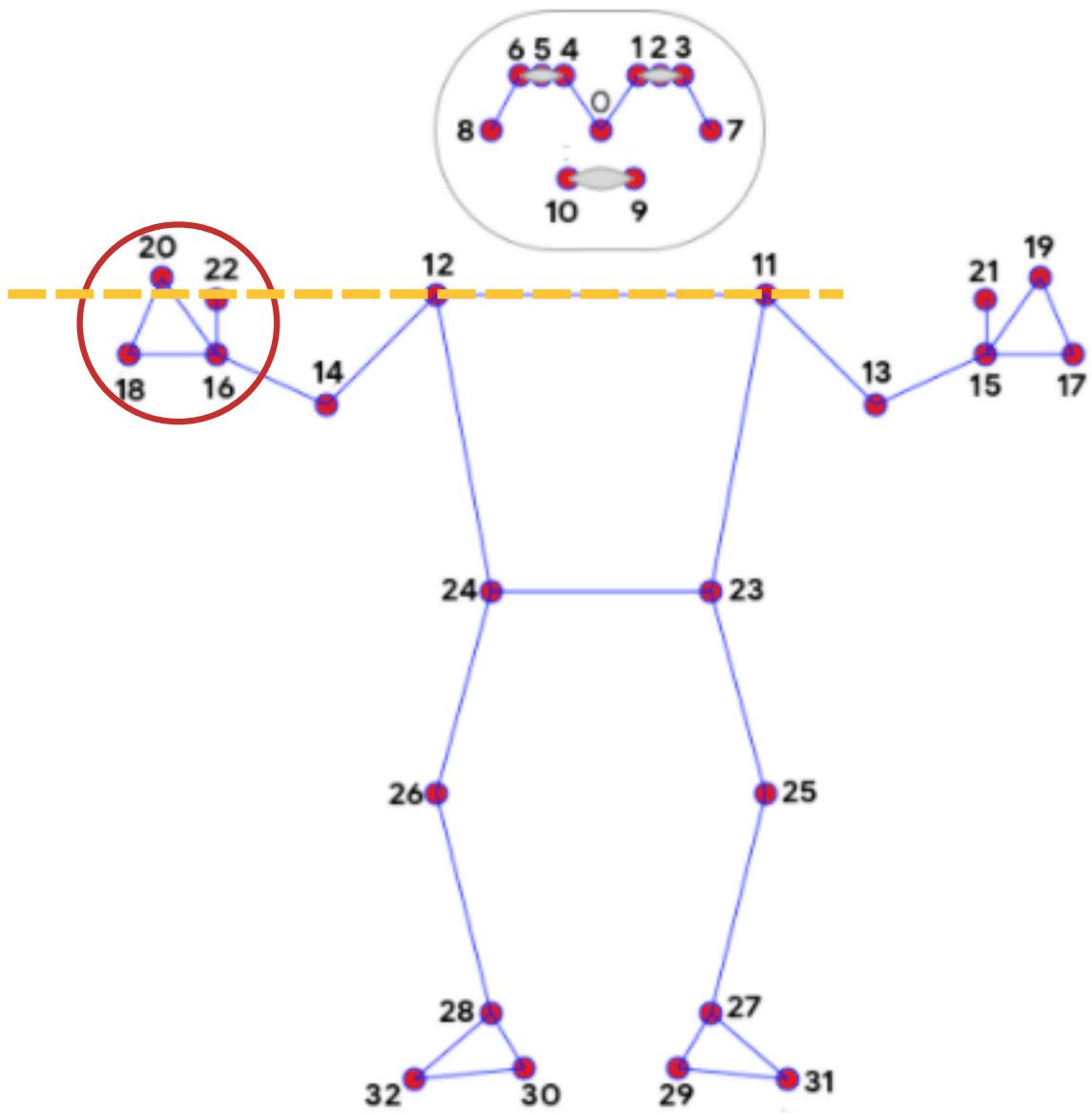
Rule-based: չայ



2

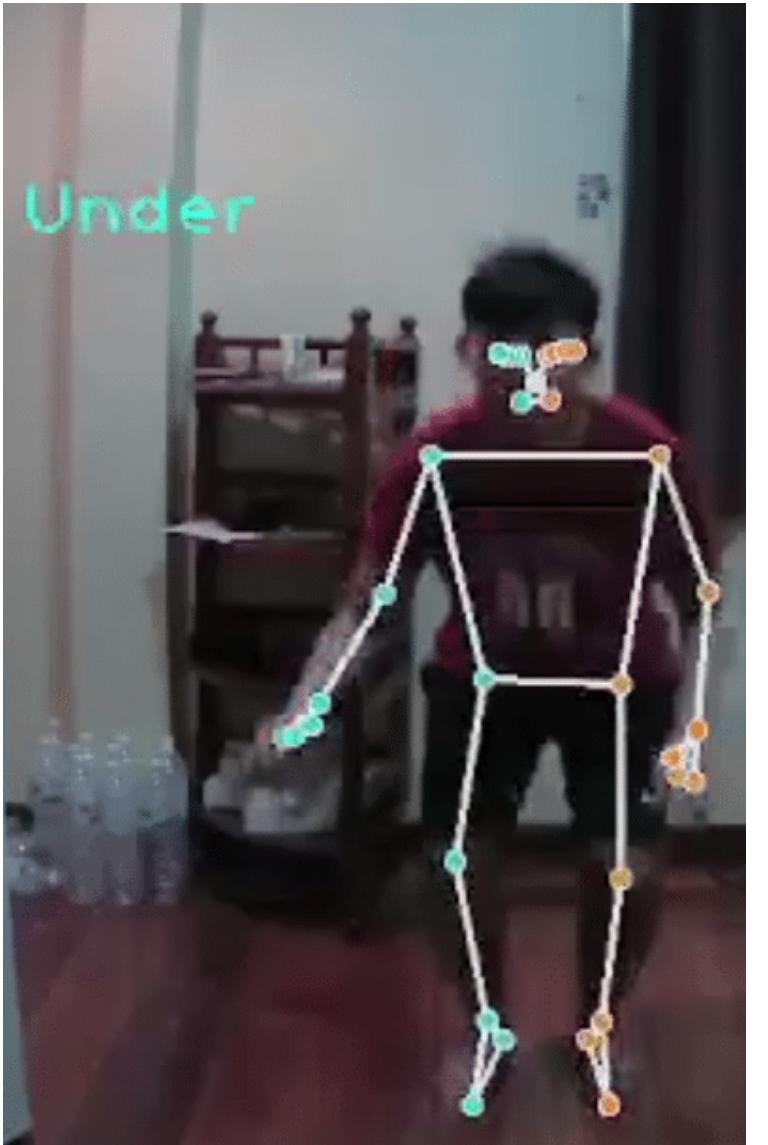
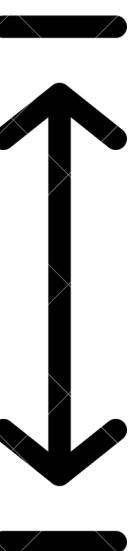
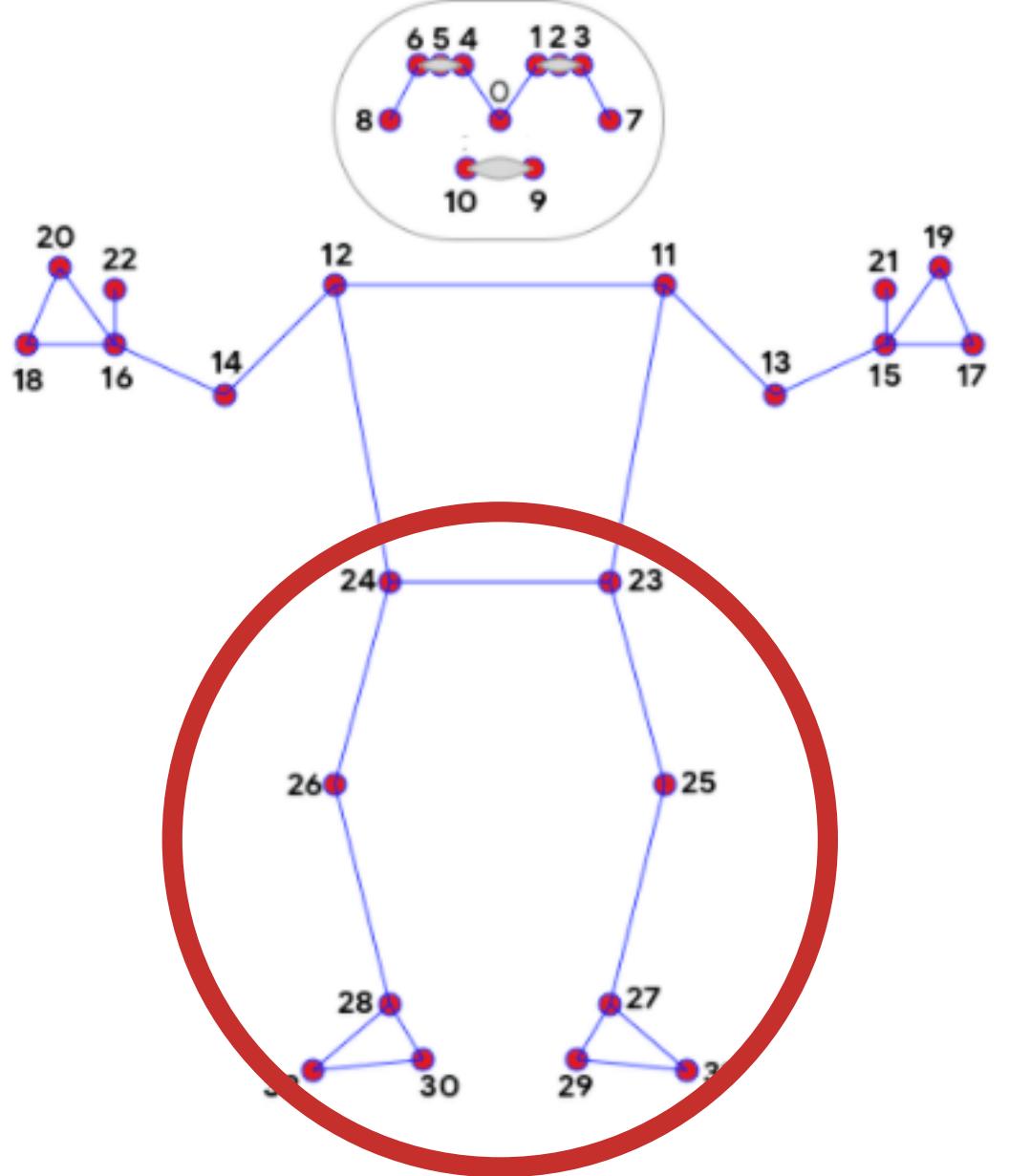
Camera

Rule-based: RCN



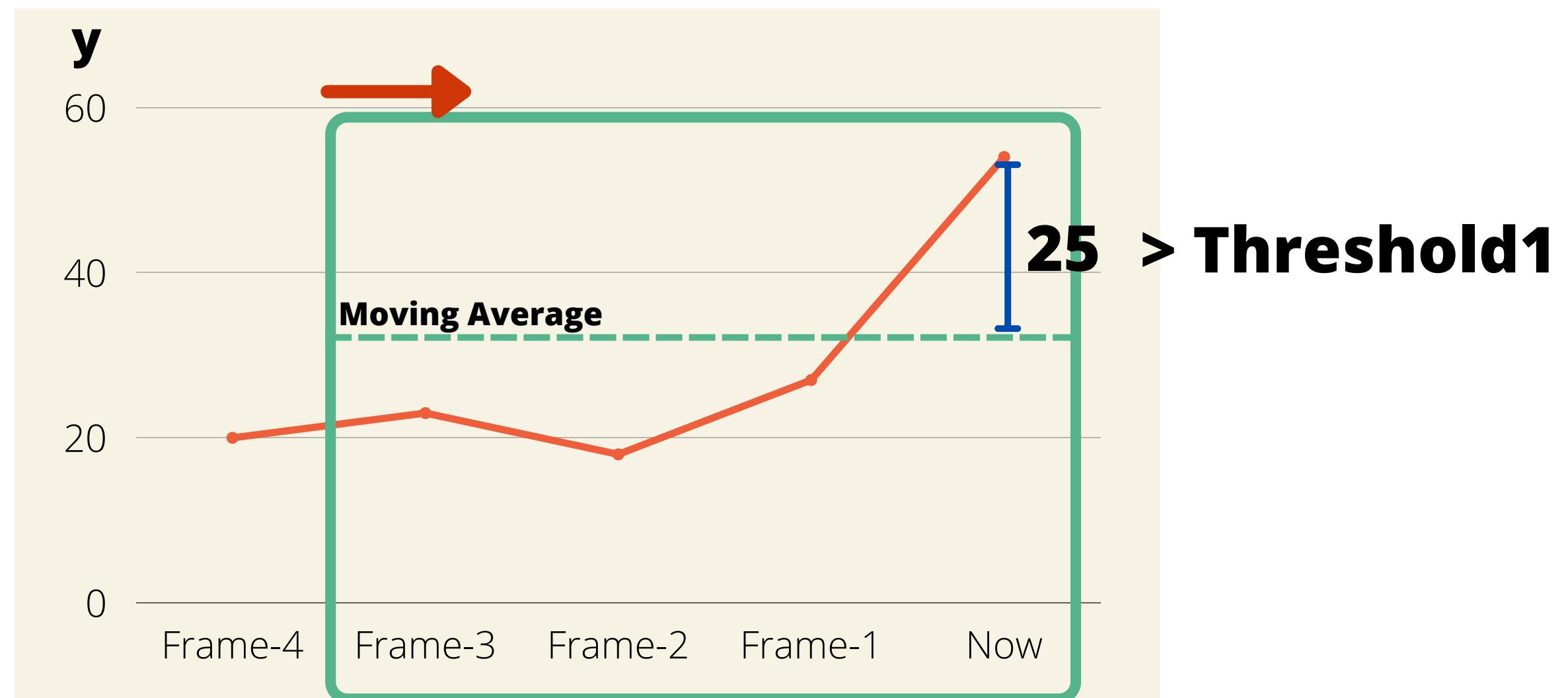
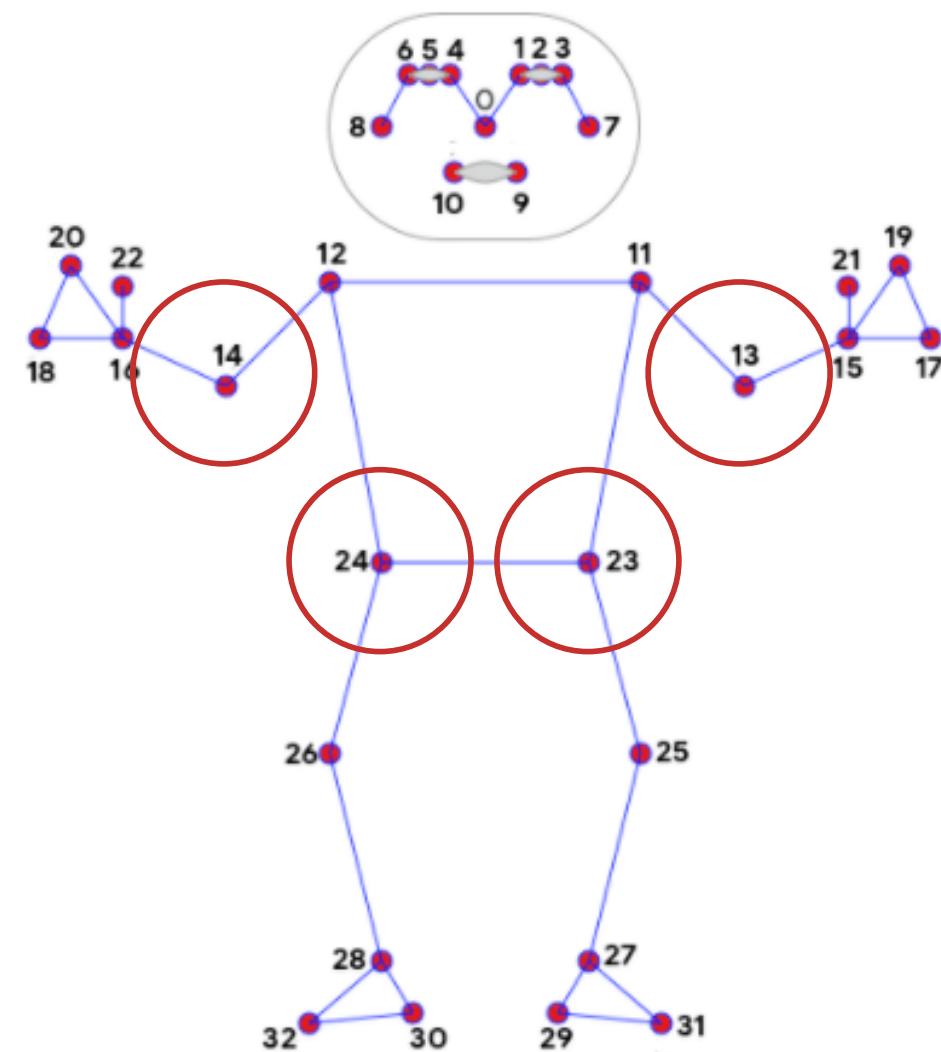
2

Rule-based: ຍົວ



2
Camera

Rule-based: នសេត្តា



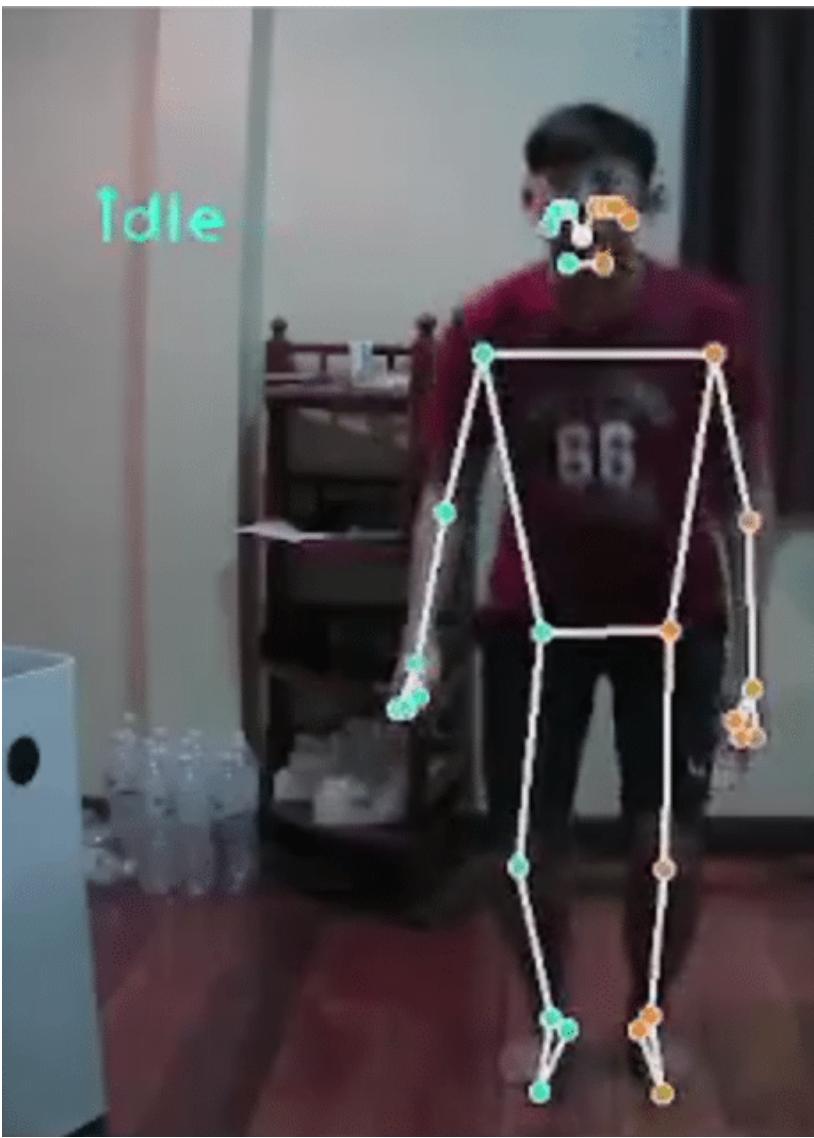
2

Camera

Rule-based: ກຽດໄດ້



ນິ້ງ -> ກຽດໄດ້



ຢ່າ -> ນິ້ງ

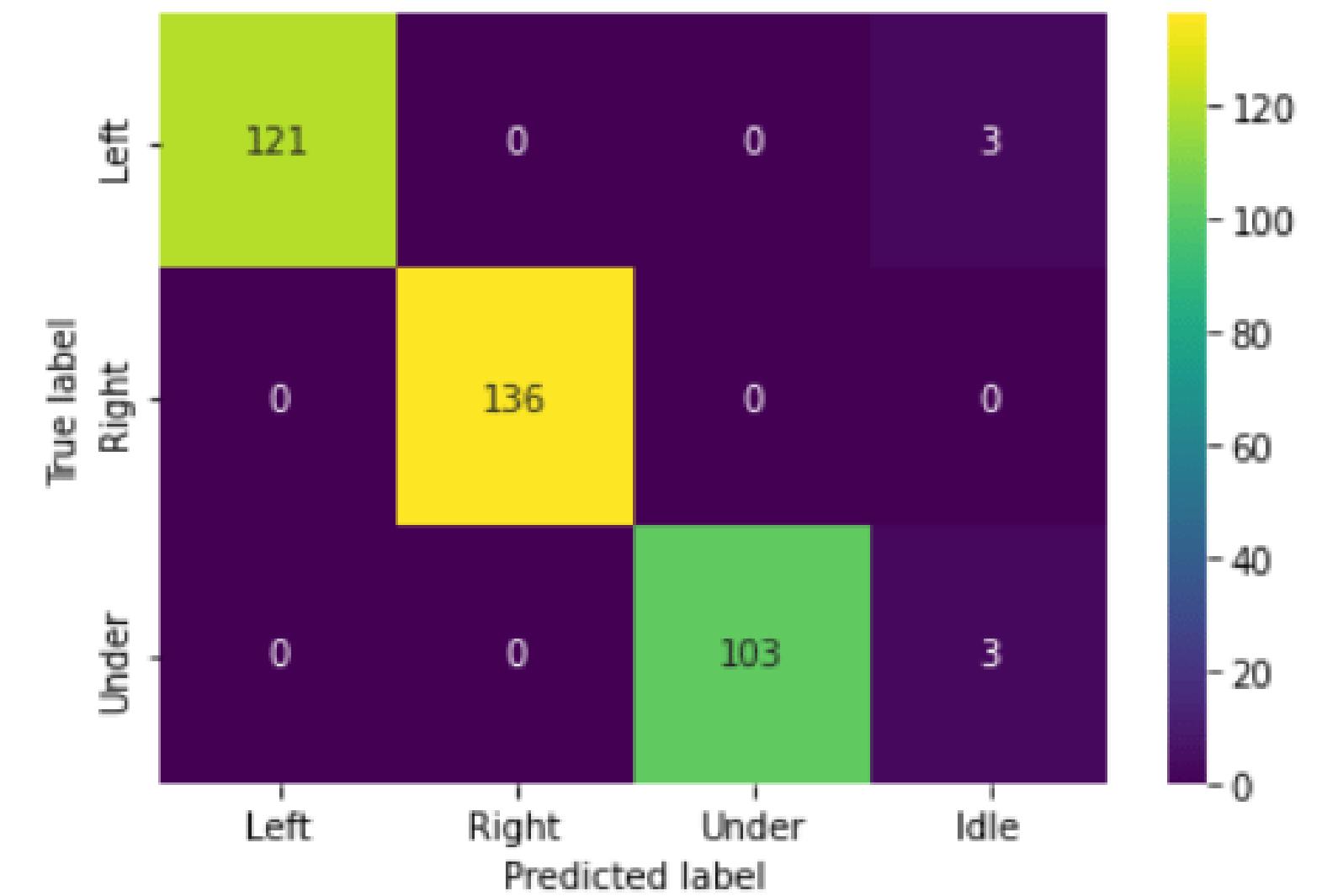
$$\sum_{\#LM} (y - \bar{y}_{ma}) > \text{thresh1}$$

AND

$$\sigma_y^{(\#LM)} > \text{thresh2}$$

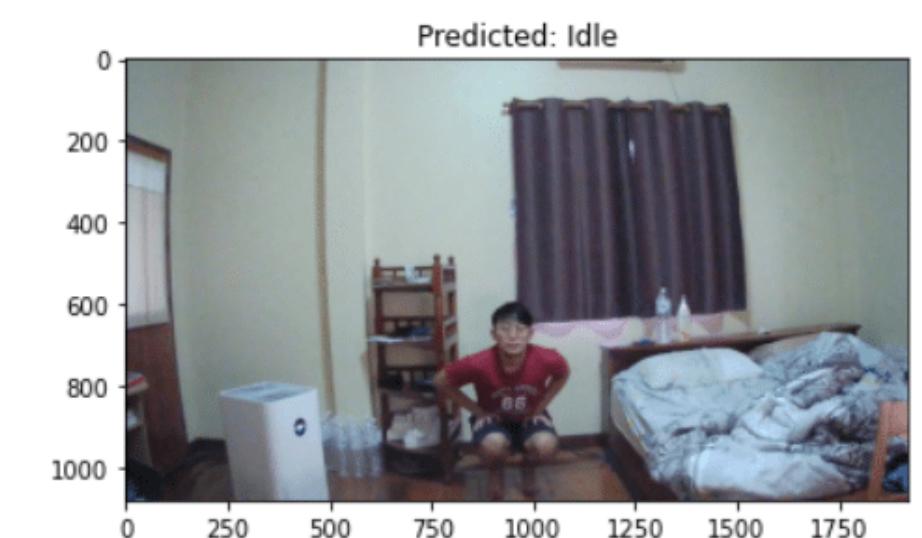
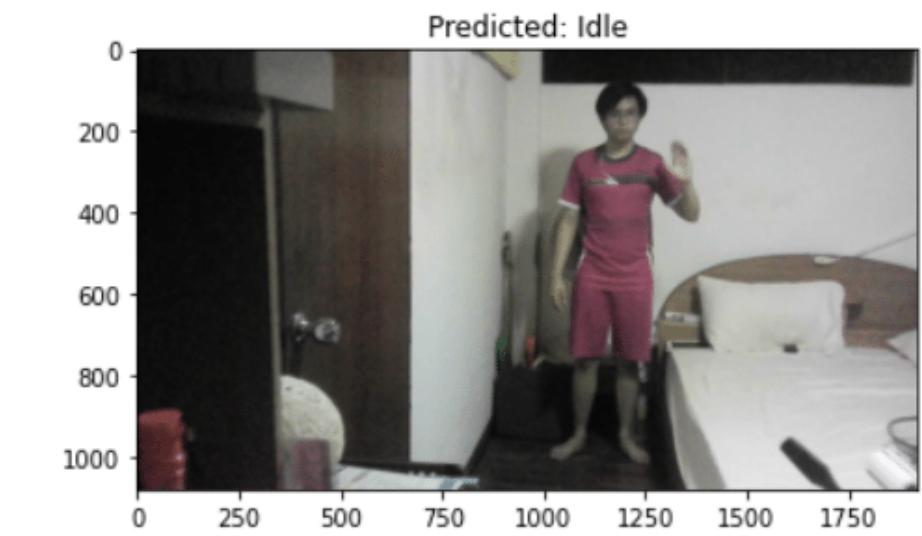
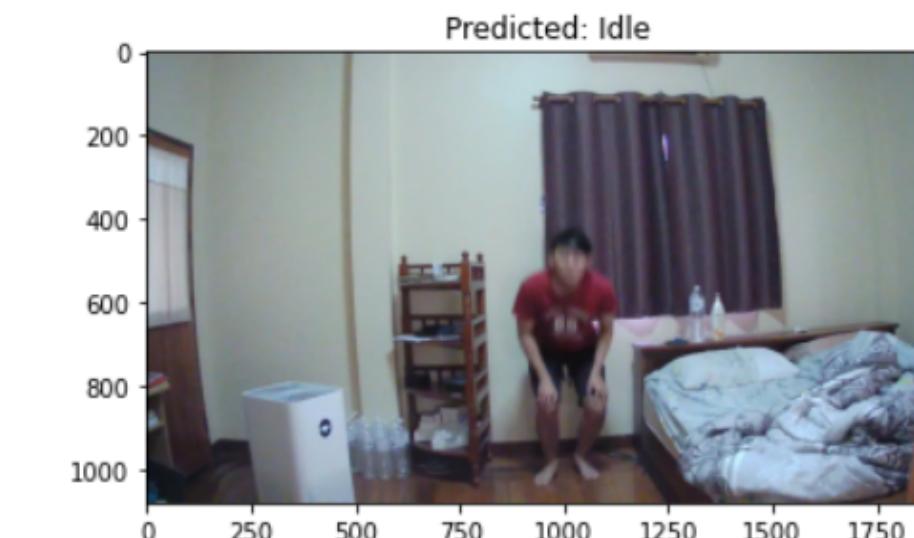
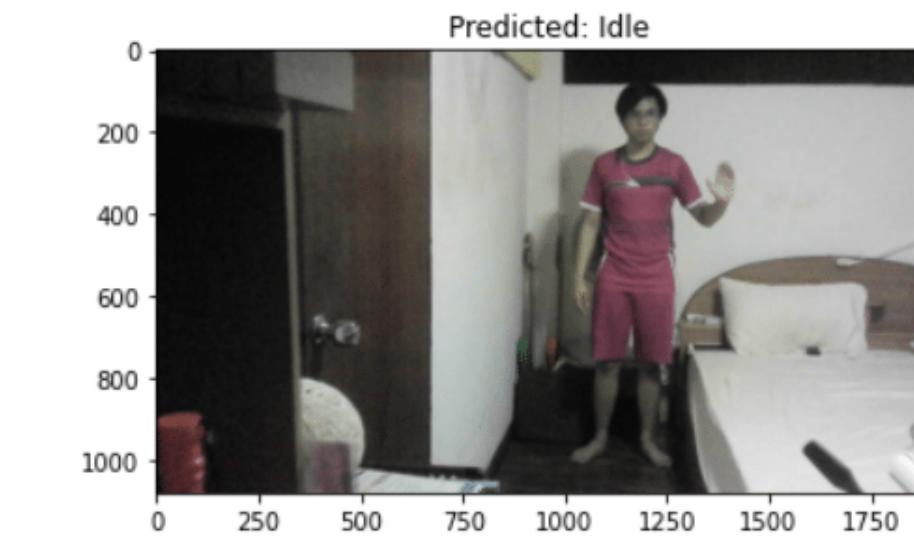
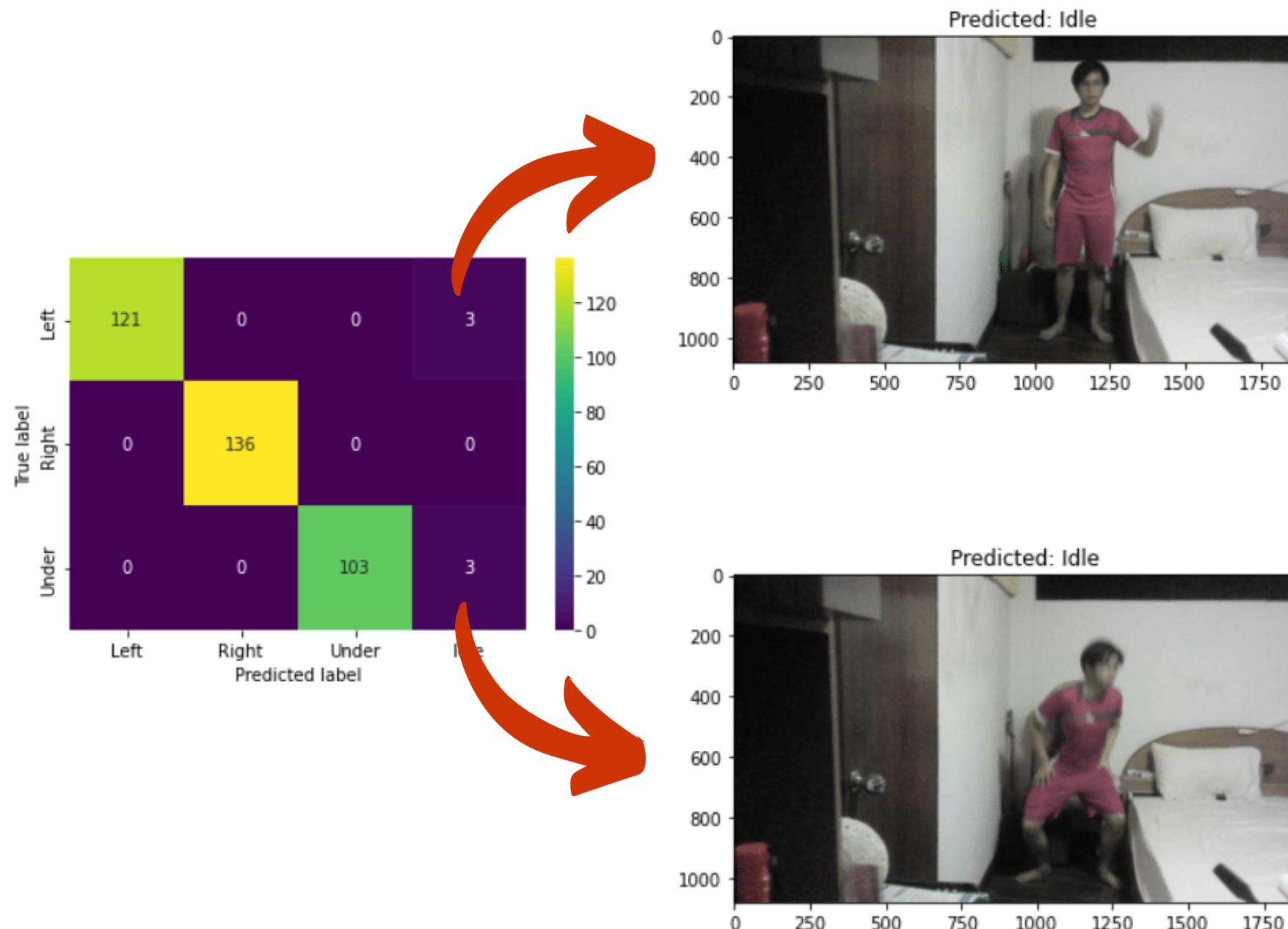
Rule-based: Evaluation

	precision	recall	f1-score	support
Idle	0.0000	0.0000	0.0000	0
Left	1.0000	0.9758	0.9878	124
Right	1.0000	1.0000	1.0000	136
Under	1.0000	0.9717	0.9856	106
accuracy			0.9836	366
macro avg	0.7500	0.7369	0.7434	366
weighted avg	1.0000	0.9836	0.9917	366

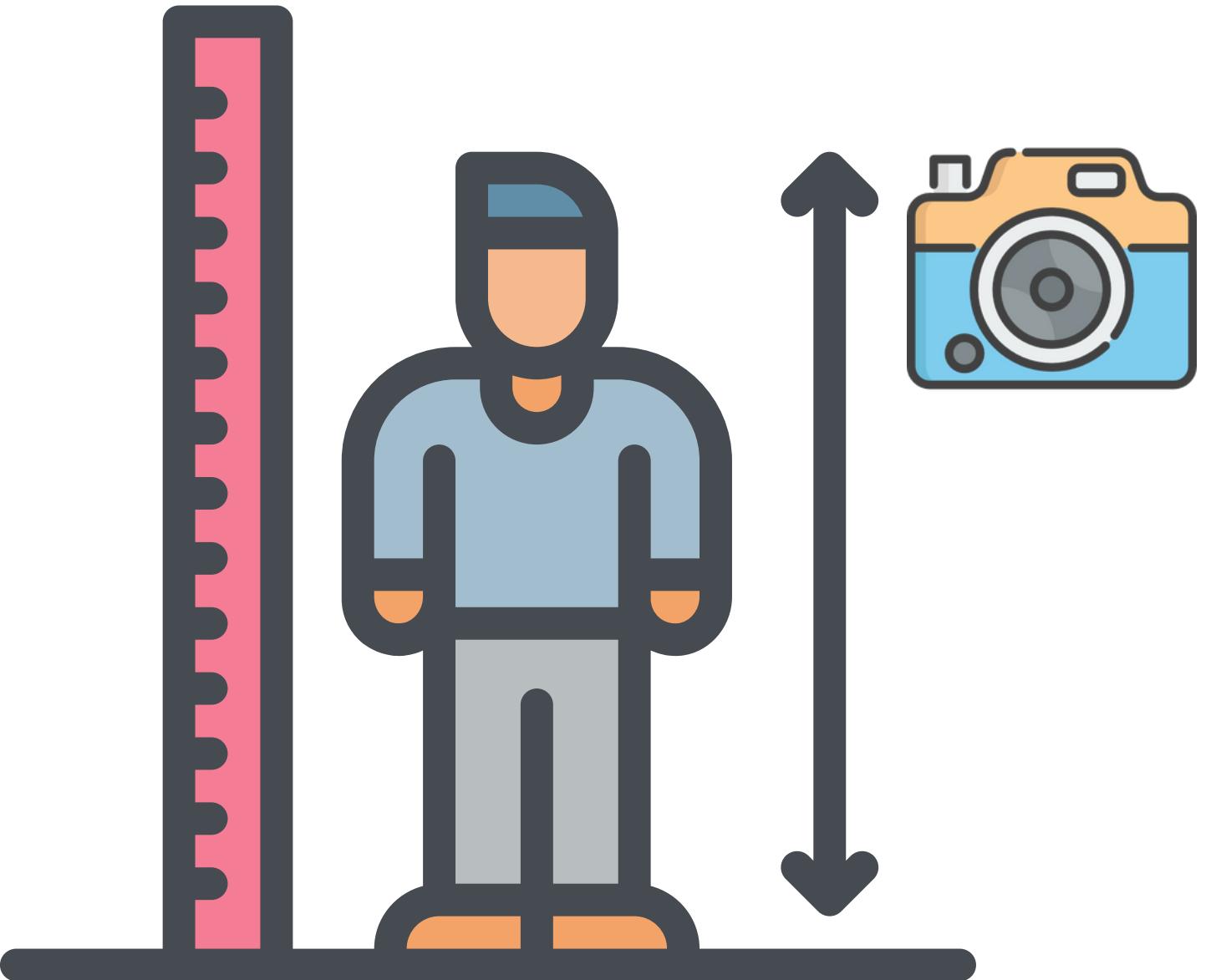




Rule-based: Evaluation

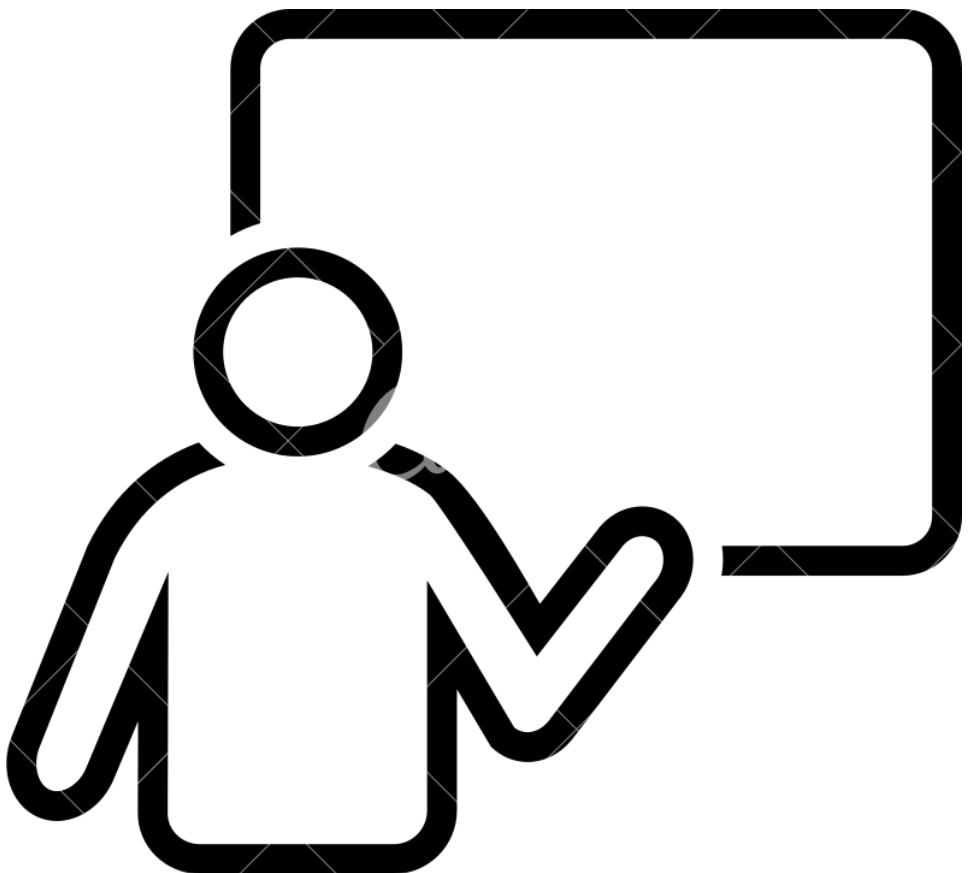


นำไปใช้ได้เลย
ไม่ต้อง Calibrate อีก robe!
(และเป็น Translation Invariant!)



ພາບປັນຍ່າງໄດ້

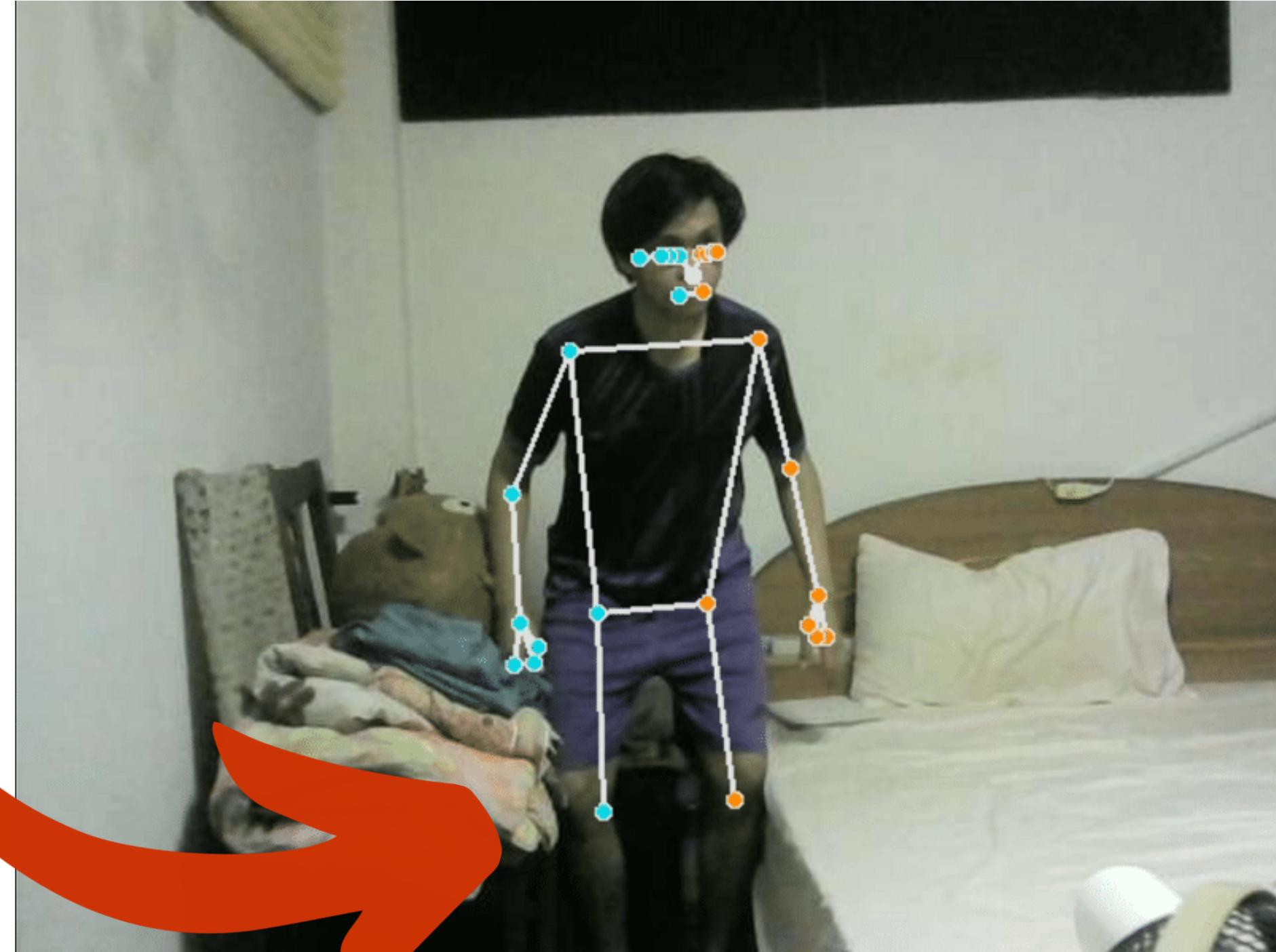
DEMO



ข้อจำกัด

ต้องจับ pose ได้ทั้งตัว

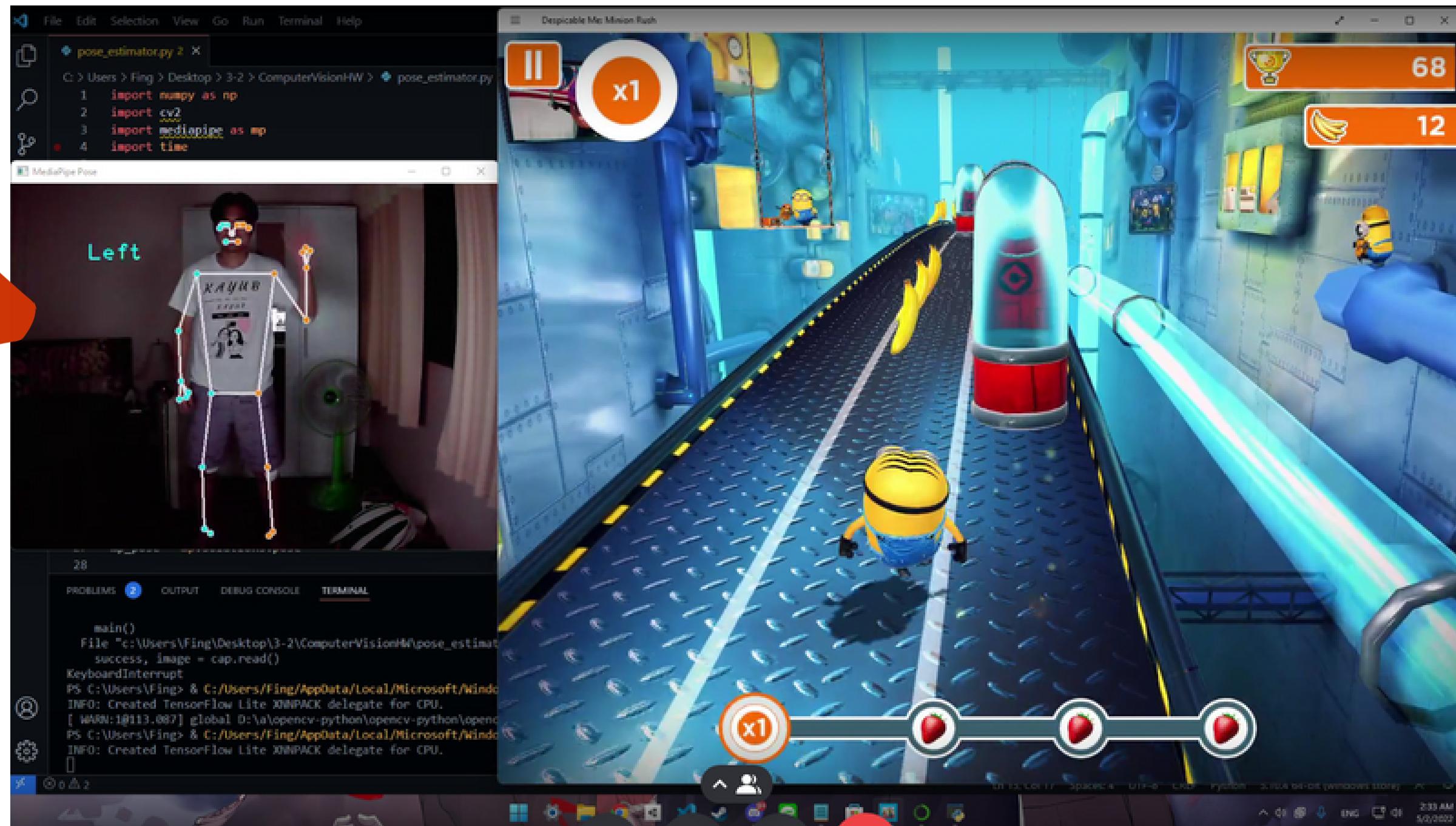
จุดเก้าหาย



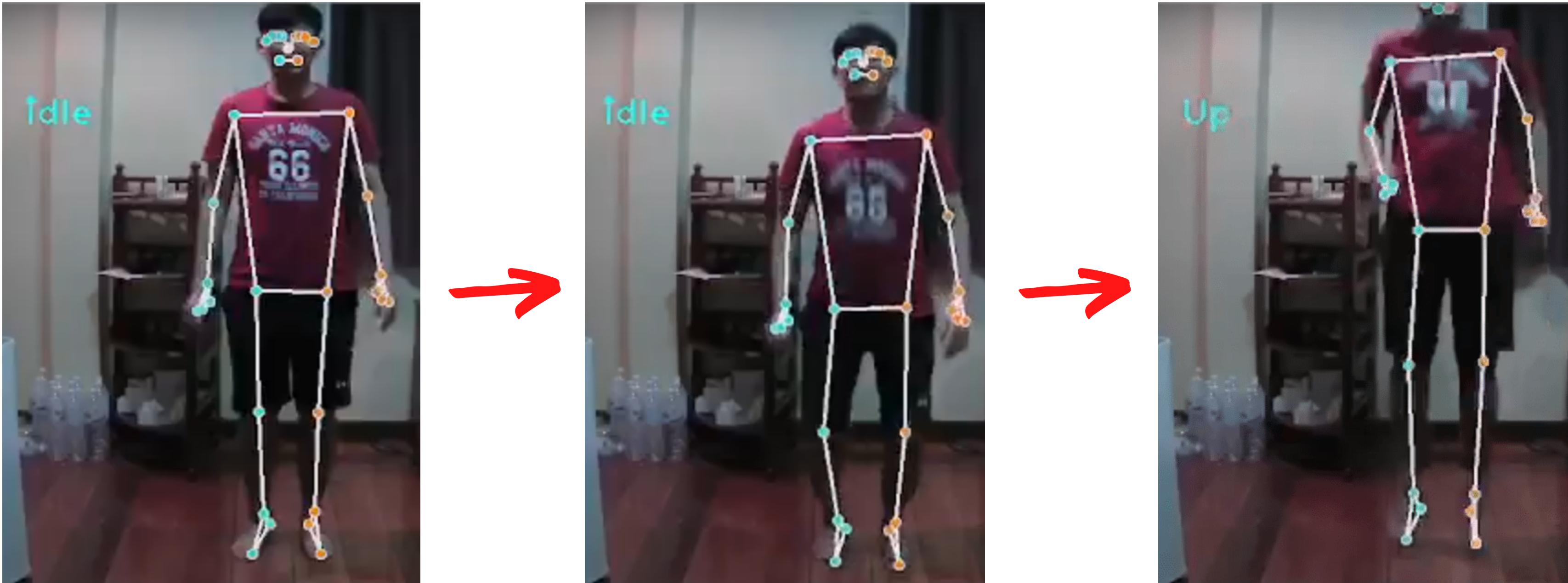
ข้อจำกัด ต้องมีแสงพอให้จับ pose ได้



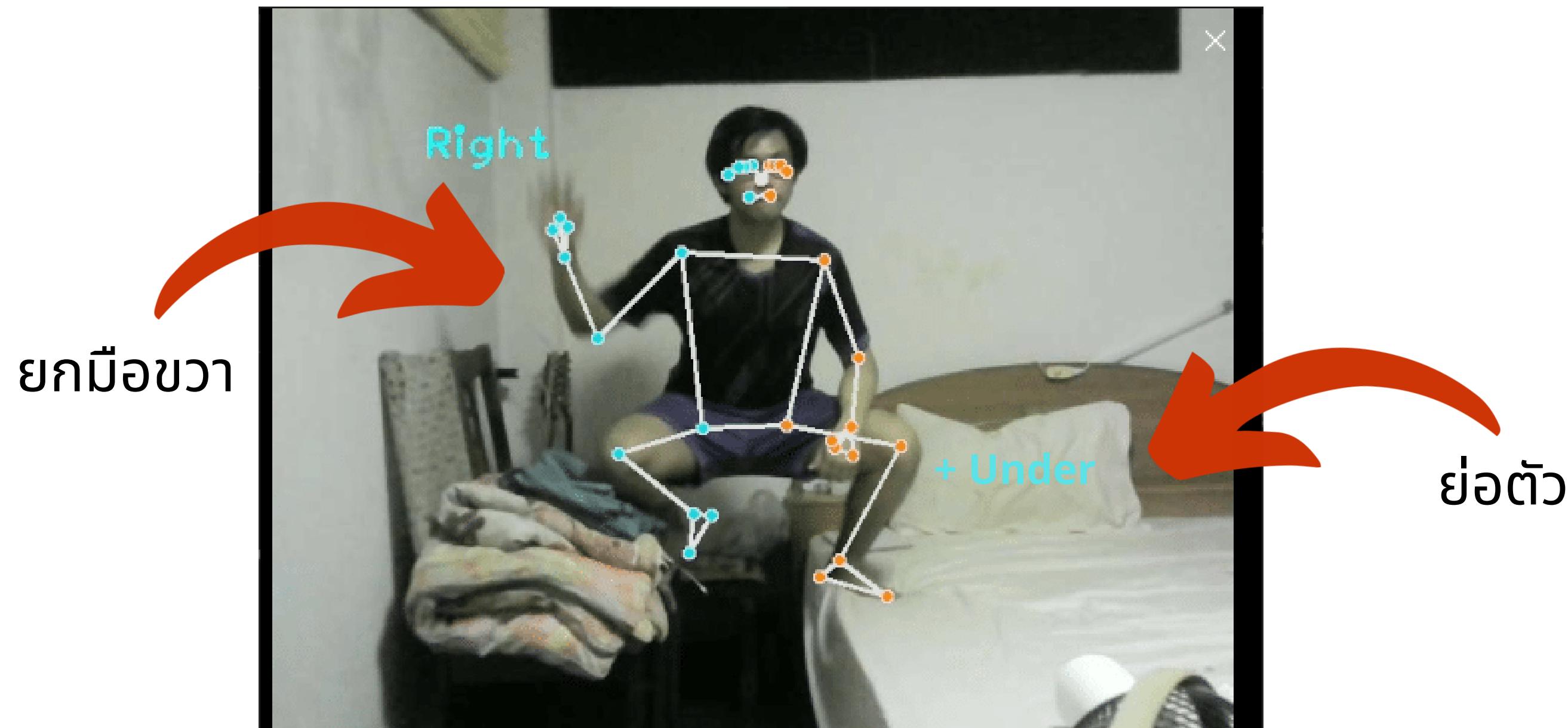
อันนี้พอได้อยู่



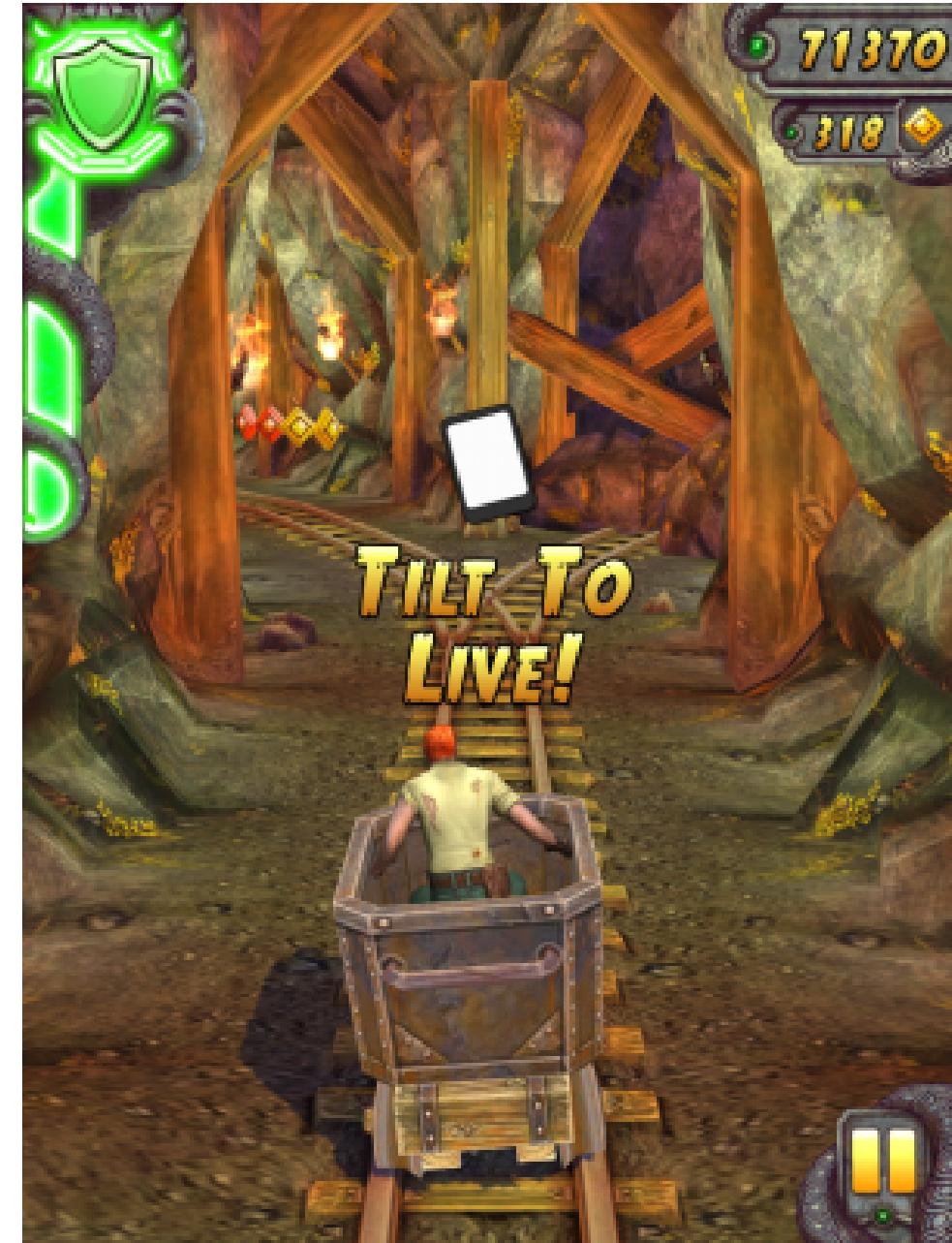
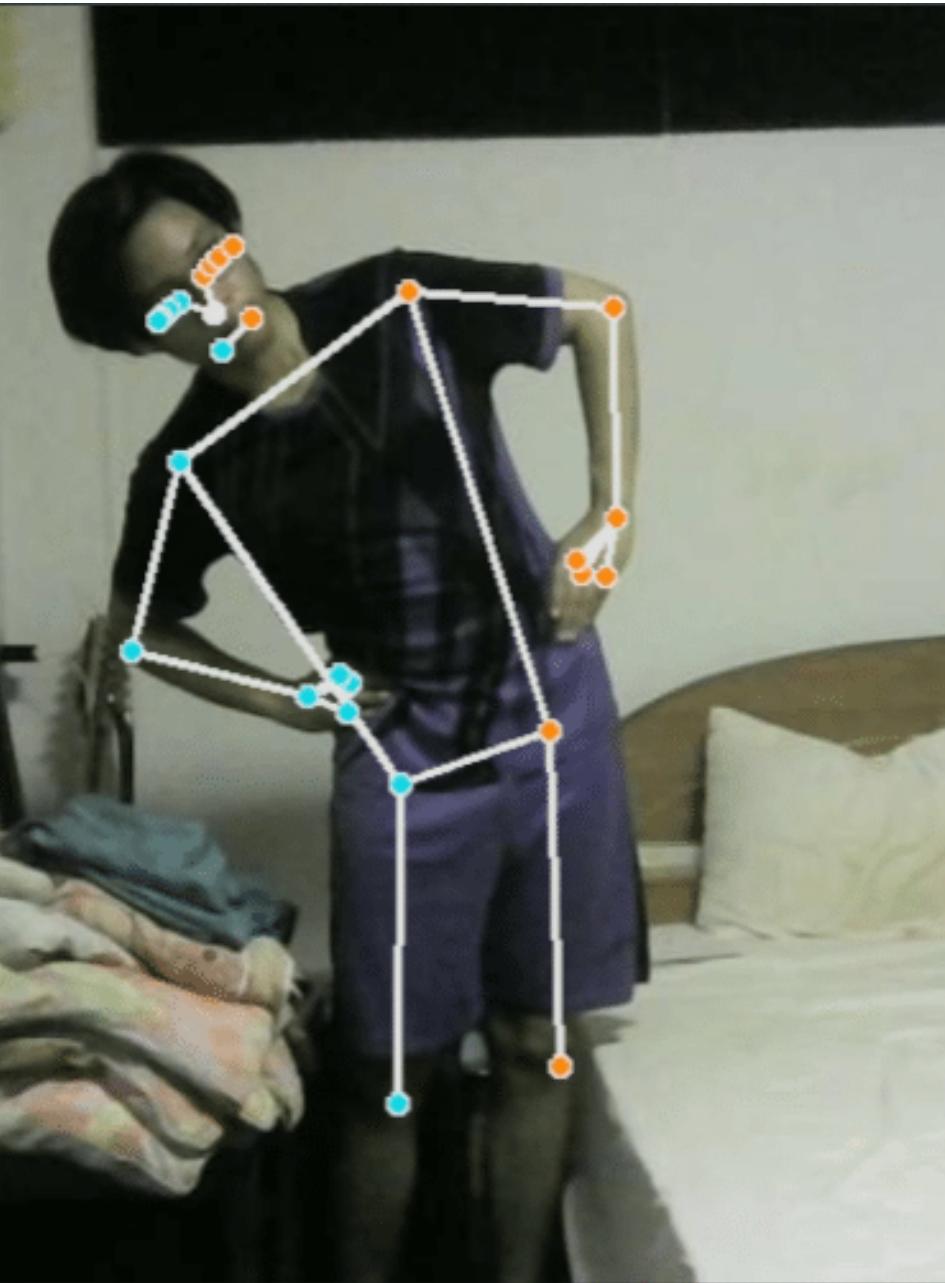
ข้อจำกัด ต่อนำร่องโดด เพื่อเวลา React



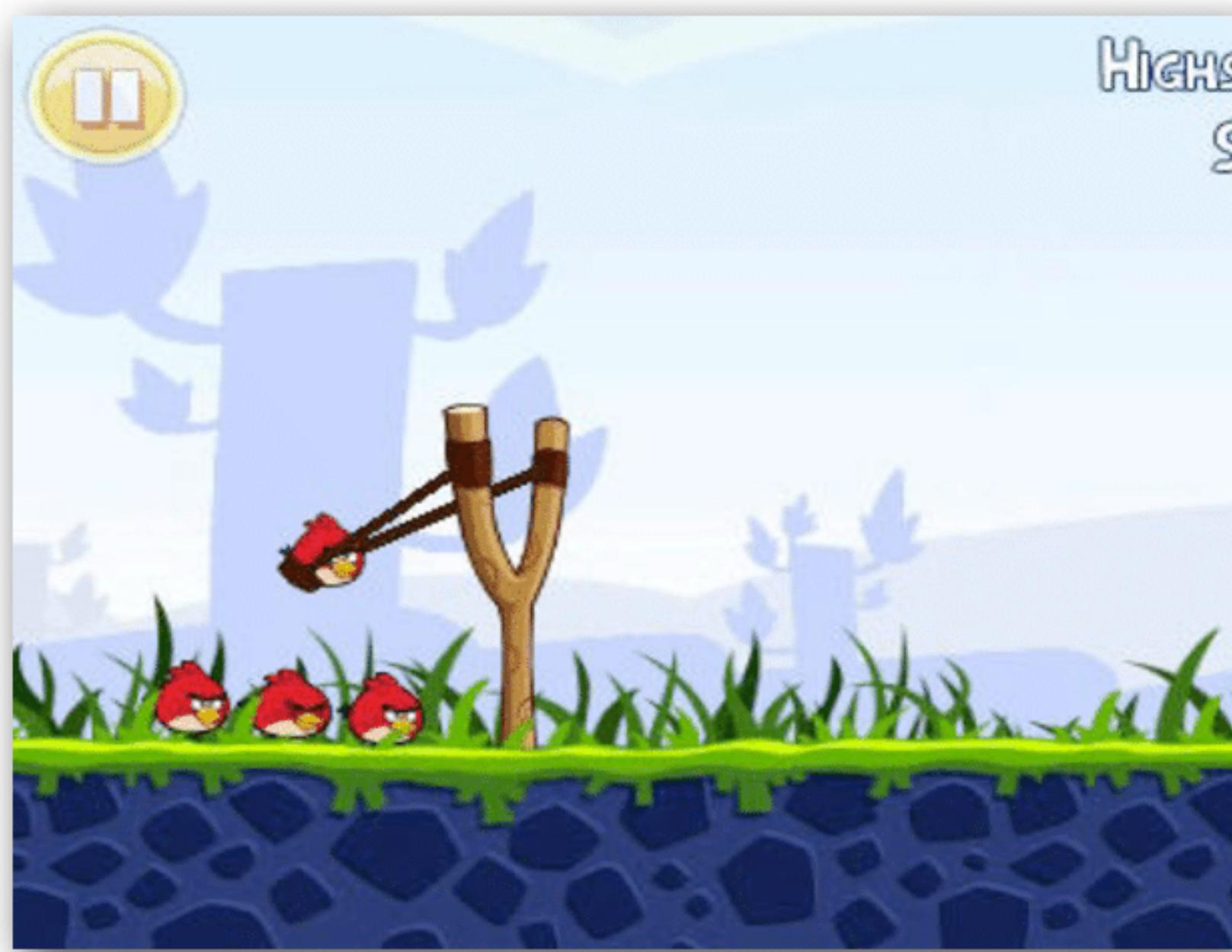
แนวทางในการพัฒนาต่อ จับ hairy ได้ในรูปเดียว



แนวทางในการพัฒนาต่อ สำหรับ Control อื่น ๆ เช่น เอียงตัวเพื่อเอียงจอ



มีใครกำคล้ายๆ ไหม?



มีใครกำค้าง่ายๆ ไหม?



Subway Surfers Gesture Control

[https://www.youtube.com/watch?
app=desktop&v=W3fkJF7SLjk&feature=you
tu.be](https://www.youtube.com/watch?app=desktop&v=W3fkJF7SLjk&feature=youtu.be)



Playing NeedForSpeed By Hand Gesture Control

[https://create.arduino.cc/projecthub/najad/pl
aying-nfs-by-hand-gesture-control-ba3d8a](https://create.arduino.cc/projecthub/najad/playing-nfs-by-hand-gesture-control-ba3d8a)

Playing NFS By Hand Gesture Control
Hand gesture control using Arduino Leonardo and IR sensors.
Arduino Project Hub

Thank
you!

