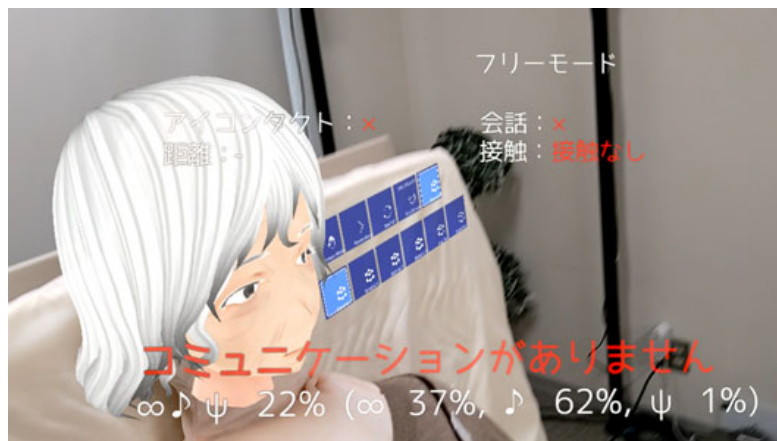


# HEARTS 3 Manual



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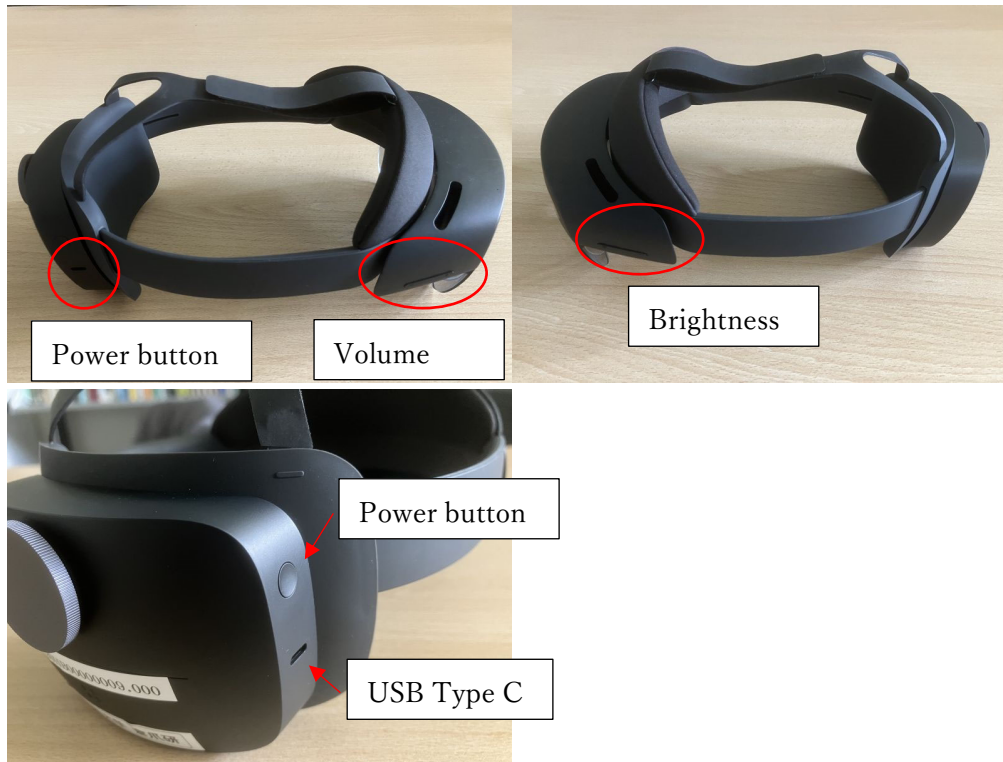
[kurazume@ait.kyushu-u.ac.jp](mailto:kurazume@ait.kyushu-u.ac.jp)

## Hardware

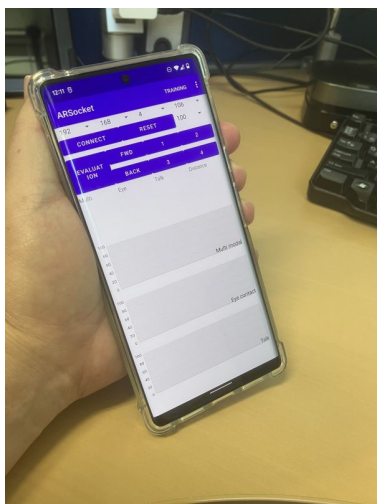
HEARTS 3 runs on HoloLens 2 and NrealLight.

Android smartphone can be used as a remote controller.

### HoloLens 2 (Required)



### Android smartphone (Optional)



### NrealLight (Optional)



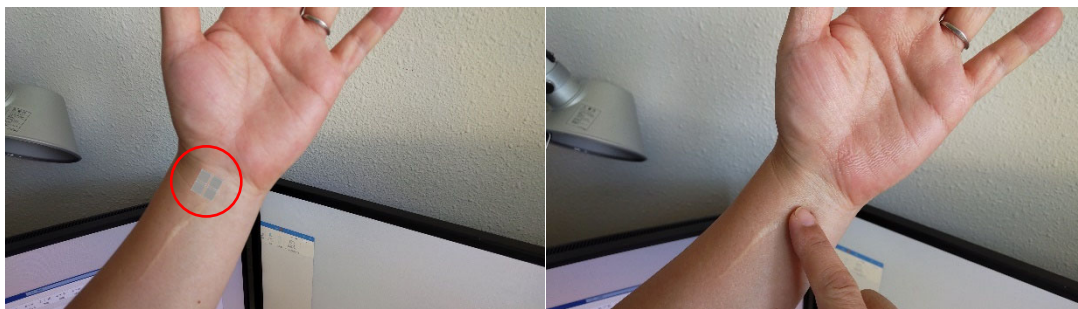
## HoloLens application

- How to start “Humanitude anime” application.

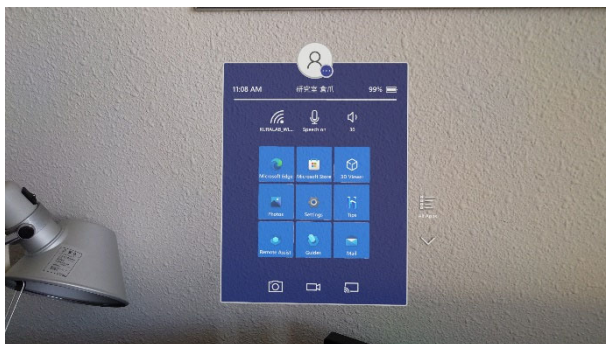
1. Push power button and wear HoloLens 2.



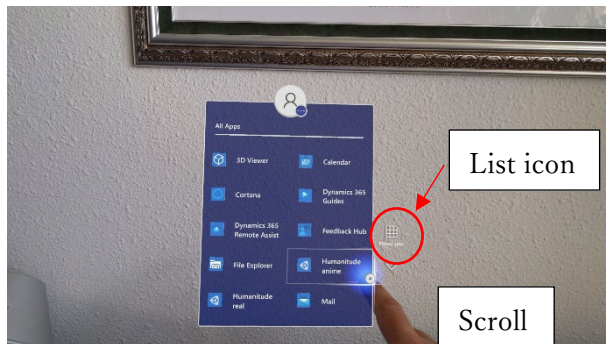
2. Tap your wrist by index finger.



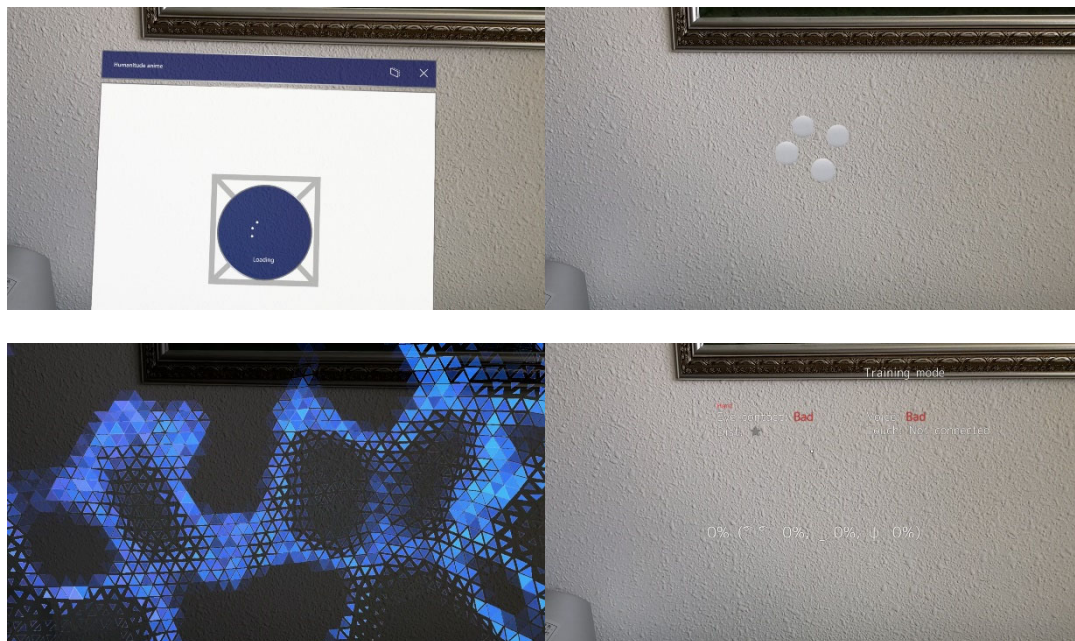
3. Menu appears.



4. Find “Humanitude anime” icon and tap it.  
If you cannot find the icon, tap the list icon on the right and scroll through the list.



5. Start “Humanitude anime” application.



● How to use “Humanitude anime” application.

1. Place the avatar's face on the doll's face or other appropriate positions.

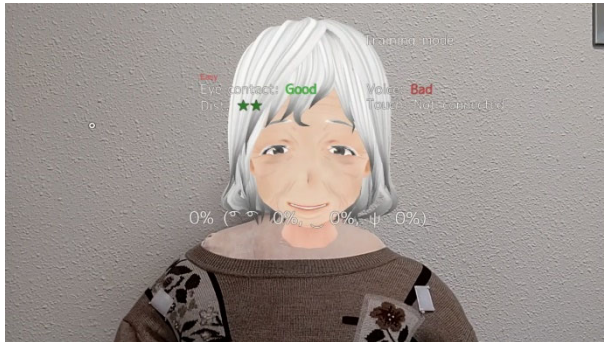
Say “Reset”.





Move the avatar's face to the proper position.

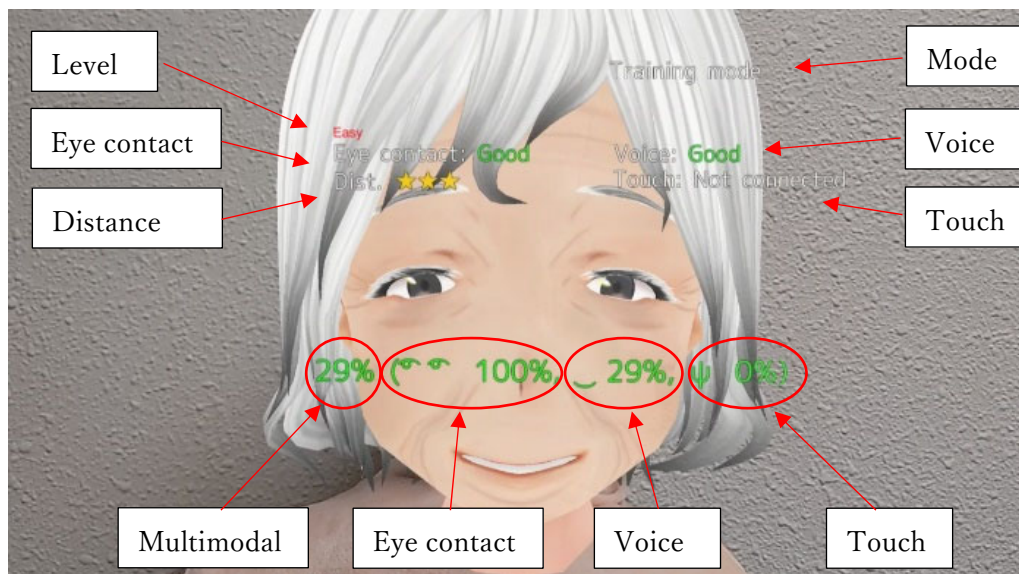
Then, say "Reset" again.



You can use the smartphone application (explained later).

## 2. How to start/stop the evaluation.

Say "Evaluation". The scores will be changed.



Multimodal score = Time at least two modalities are used / Total time \* 100

Eye contact score = Time to detect eye contact / Total time \* 100

Voice score = Time to detect voice / Total time \* 100

Touch score = Time to detect touch / Total time \* 100

Level: Easy, Medium, Hard

Eye contact, Voice: Good or Bad

Distance: ★(>140cm), ★★(70~140cm), ★★★(<70cm)

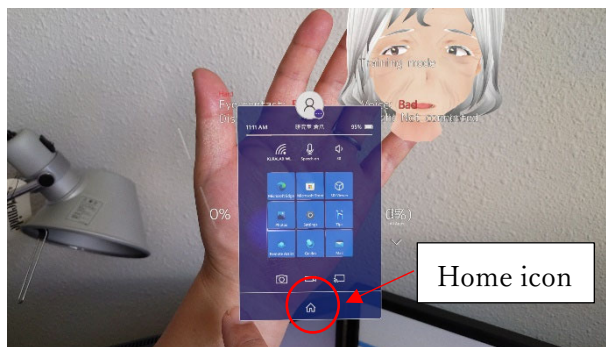
Touch: "Not connected", "No contact", "Good", "Too strong", "Touch shoulders or back"  
(Scenario mode only)

- How to shutdown “Humanitude anime” application.

1. Tap your wrist by index finger.



2. Tap the Home icon on the bottom of the menu.



3. Blank window appears.



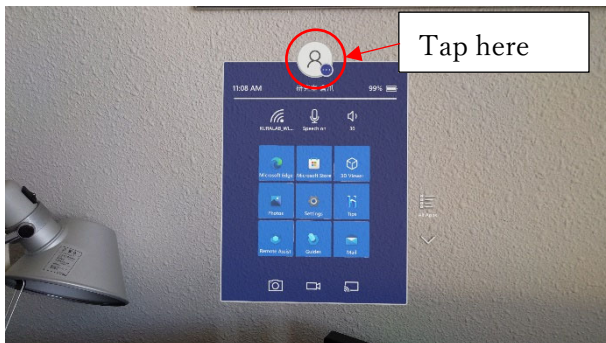
4. Press × on the upper-right corner to close the application.



5. The application shutdowns.



6. Shutdown HoloLens 2.



## Smartphone application

- Download and install the smartphone application.  
Permission may be required to install it from google drive.

<https://drive.google.com/file/d/1d01UCizBCGMVsgRE0b9ZFohCpLDGCvcX/view?usp=sharing>



- How to find IP address of HoloLens 2.  
Say “What’s my IP address?”



IP address is appeared.

In this case, IP address is “192.168.4.106”.

Set IP address to smartphone’s application.



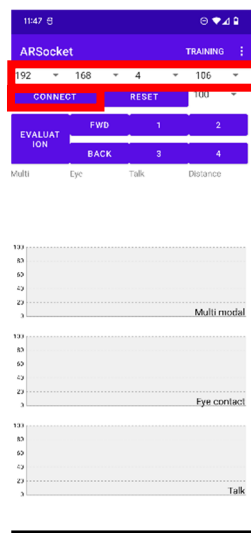
Note: HoloLens and smartphone must be in the same Wi-Fi network, and the network profile of HoloLens should be “Private”. You can set it from “Settings” -> “Network & Internet” -> “Wi-Fi” -> “!” icon in your Wi-Fi network.

- How to use the smartphone application.

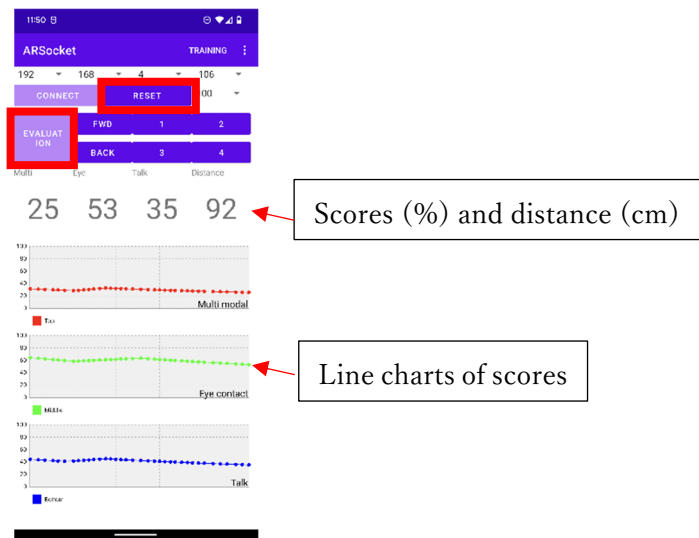
1. Press “ARSocket” icon.



2. Set IP address of HoloLens 2 obtained above, and press “CONNECT” button.

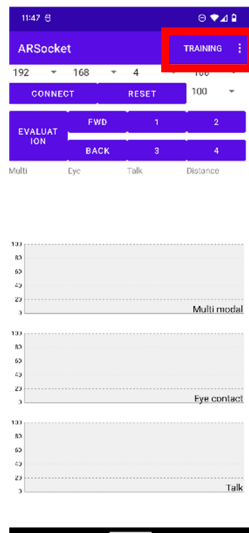


3. Press “RESET” or “EVALUATION” buttons.

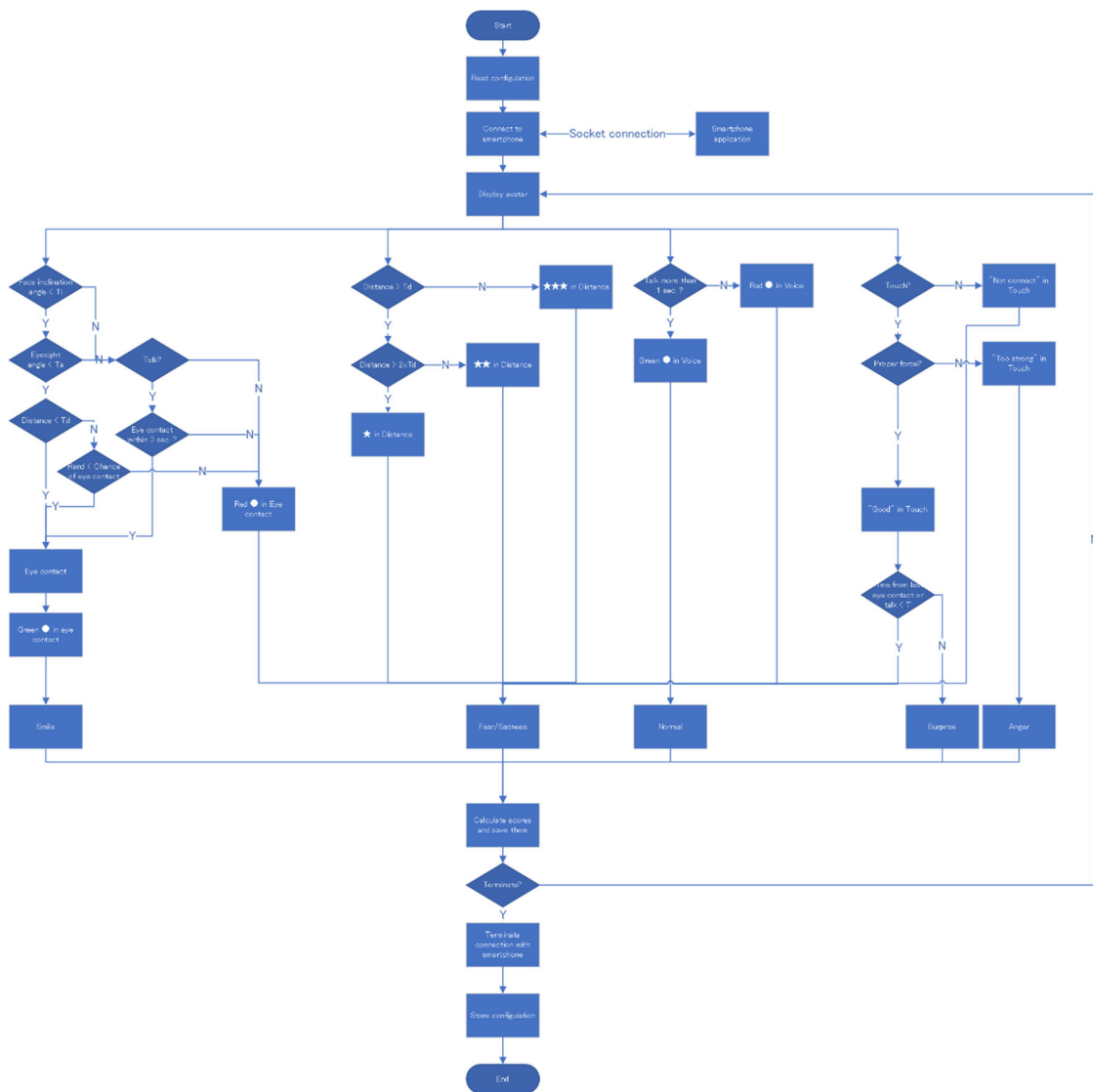


4. You can change several settings from the option menu on the upper-right corner.

Mode	TRAINING/SCENARIO
Language	English/Japanese
Beep	On/Off
Level	Easy/Medium/Hard

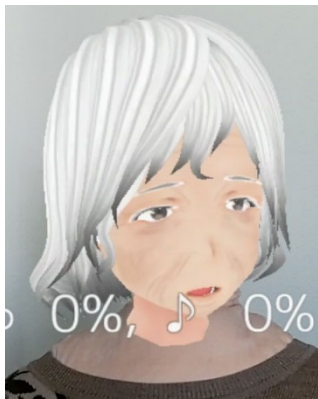


## Flow chart

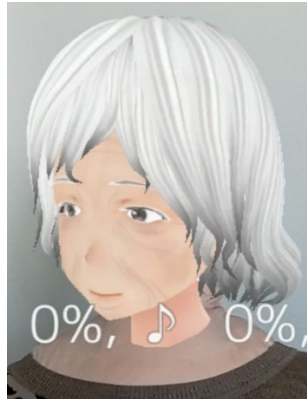


## Facial expression

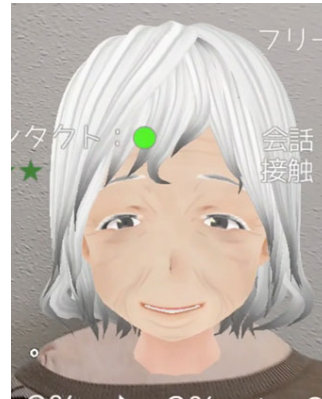
No communication  
(Fear/Sadness)



Voice  
(Normal)



Eye contact  
(Smile)



Sudden or strong touch  
(Surprise/Anger)



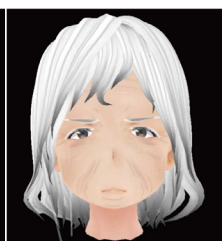
Gentle touch  
(Smile)



Smile



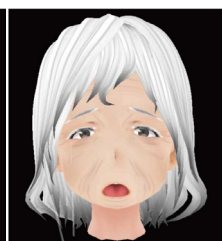
Anger



Surprise



Sadness



Fear

