

**School of Computer Science**

# **Data collection instructions**

Thank you for taking the time to be involved in this study.

The aim of this project is to explore developing a computer system to recognise gestures and body language using images provided by a webcam and cutting-edge AI technology. The gestures will be translated into avatar animations in a 3D virtual environment for use within [Grapevine](http://thegrapevine.tech), a 3D virtual communication platform.

The purpose of this exercise is to capture varied gesture data over video, this will be used as training data for an AI model to classify gestures.

For this I need participants to record short videos of themselves performing a set of gestures. This is a short exercise and shouldn’t take more than 15-20 minutes of your time. Please read the instructions below for how to record and send data for the study.

1. **Consent**

In order to participate in this study, you must first read and sign the consent form provided. Please note that your data will be stored securely and made anonymous in compliance with GPPR.

1. **Environment set up**

The target of this project is for use on laptop and desktop computers; therefore it is important that the data is captured on a laptop/desktop computer via a webcam.

Make sure you are sitting in a reasonably well-lit room and that there are no other people within view.

Open your webcam app, if you are unsure where to find this see the links below which provide instructions for both Windows and Mac users on how to open and record video in the app.

* Windows: <https://support.microsoft.com/en-us/windows/open-the-camera-in-windows-8da044ed-c4a8-2fb4-da51-232362e4126d#WindowsVersion=Windows_10>
* Mac: [https://www.lifewire.com/how-to-record-on-webcam-on-pc-or-mac-4588357#](https://www.lifewire.com/how-to-record-on-webcam-on-pc-or-mac-4588357):

Record a short test video to make sure it works and locate where the file is saved. On Windows it may go into your photos folder.

1. **Capture video**

4 videos need to be recorded. One for each of the following gestures.

* Thumbs up
* [OK hand symbol](https://c.files.bbci.co.uk/EF37/production/_108993216_ok-hand.jpg)
* Raise hand
* Wave

When you start recording, raise your palm to the camera before you perform the gesture. This helps make sure we capture the hand key points as the detector system works with palm detection.

Here are some example videos to give you an idea:

<https://drive.google.com/drive/folders/1M7CgHb2w-gzLorfgmYs79qOY0CGF1oOb?usp=sharing>

Try to be yourself when recording, there is no right or wrong way to capture the video and all data is helpful, feel free to perform the gesture multiple times in each video in different positions. It is good to have a broad variety of data!

1. **Saving and uploading files**

When you're done locate your files and rename each one with your initials and the name of the gesture, separated by underscores.

*initials\_gesturename.mp4*

For example: rlh\_thumbsup.mp4

Then you can email the files to: [rlh604@york.ac.uk](mailto:rlh604@york.ac.uk)

Or you can upload them to this drive folder:

<https://drive.google.com/drive/folders/104gx04uObpZR_hcNrHGoazgxRRaqUKQA?usp=sharing>

That’s it! Thank you very much for taking part in this study. Please don’t hesitate to get in touch if you have any questions.