User Manual
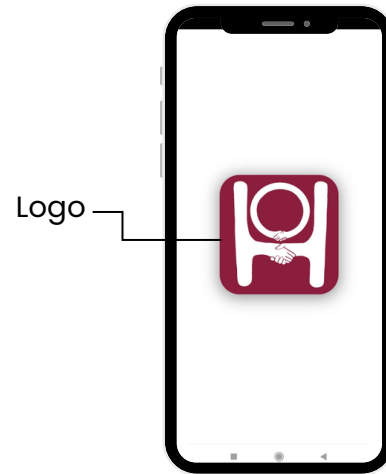

Project Helping Hands

Bridge the gap between users of ASL and those unfamiliar with ASL

PHH Application Splash Screen

Logo

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1. Home Screen

Once software is active, user will be prompted into the home menu where the user will be able to choose to start camera detection or view detectable hand signs before proceeding to detection;
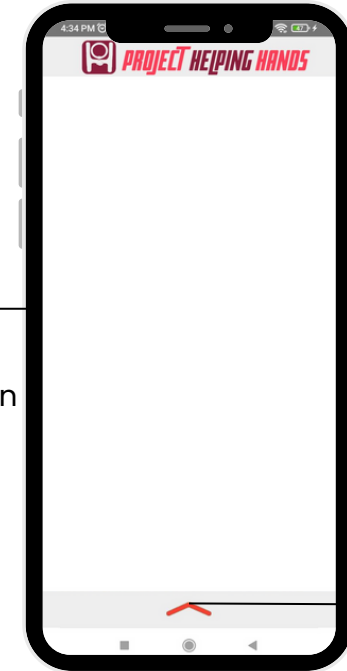
NOTE: Before running the software, check or read if the following conditions are met.

1. Suggested Operating System (OS) must be running on Android 7.0 (Nougat) as the minimum OS or above Android 7.0 for better usability.

Home Screen

PHH Image Library

ASL Start Detection

Camera Detection

Detection

Settings

1. Image Library

1.1 The following labels for translation:
- a. Words/Phrases:
  - i. Yes
  - ii. No
  - iii. Thank you
  - iv. I love you
  - v. Hello
  - vi. Goodbye
- b. Numbers:
  - i. 1,2,3,4,5,6,7,8,9
- c. Letters:
  - i. A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
- a. Rochambeau
  - i. Rock
  - ii. Paper
  - iii. Scissors

1.2. When in view detectable hand signs screen: User will be able to view a list of detectable hand signs alongside a sample picture of the detectable hand signs.

ATTENTION: If any errors arise, such as: lag; no camera display; hand detection are not corresponding; etc. Check if system requirements are met, else force close and restart the software.

If the above conditions have been met, run the software.
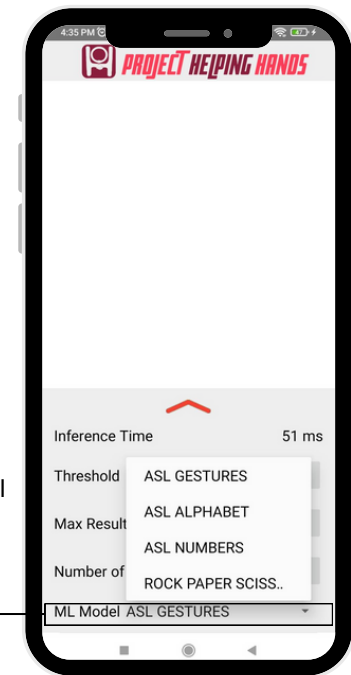
Github Page

1. Camera Detection

1.1 Camera should not be connected nor active in any other third-party applications not related to or belonging to software.

1.2 When in camera detection screen: a camera display should be present. Automatic detection of hand signs or gestures with live interpretation for each movement should also be in view.
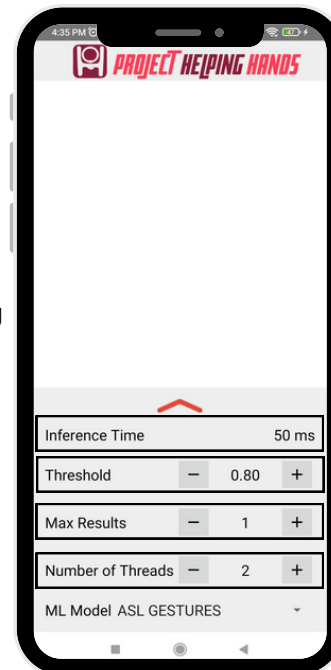
NOTE: Optimal lighting is necessary for accurate translation/s.

1. The application only works at a minimum distance of half a meter, up to a maximum distance of one and a half meter.
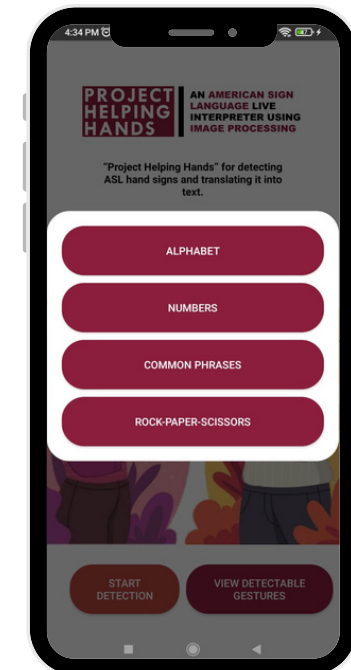
ASL Model Gesture

Settings

Processing Time

Maximum Detection

Confidence Rate

Computing Power

Image Library

List of Object Detection Models