

easyASL Documentation

Program Overview

easyASL is a web application designed to bridge the gap in communication between American Sign Language (ASL) users and English speakers. With a growing need for effective Sign Language to English translation, easyASL provides an intuitive platform that helps users learn, translate, and certify themselves in ASL communication. Whether you are a beginner looking to learn the basics of ASL or someone who needs real-time translation, easyASL offers the tools you need to become proficient.

Key Features

- ASL Dictionary: A comprehensive and interactive dictionary that provides users with detailed explanations of how to sign words in American Sign Language. Users can search for any word to see its corresponding ASL gesture.
- Real-Time Translation: Users can translate ASL to English in real time. The system processes sign language inputs and converts them into text, facilitating seamless communication.
- Advanced Image Processing: The application uses multiple APIs to enhance the accuracy of hand gesture recognition:

- * API 1 removes the background from the image.
- * API 2 converts the image to Base64 format and performs gesture detection.
- * API 3 takes the detected words, forms sentences, and ensures grammatical correctness.

User Instructions

1. Familiarize Yourself with Basic ASL Phrases: Start by learning common phrases like 'more,' 'want,' 'thirsty.'
2. Start with the Dictionary: Explore the ASL dictionary to become familiar with the hand movements required.
3. Check Your Camera: Ensure your device's camera is functional for hand movement detection.
4. Position Your Hands Correctly: Keep your hands visible within the frame for accurate detection.
5. Be Aware of the Timer: You have 5 seconds to position your hand correctly before the timer ends.

Examples

- Using the ASL Dictionary: Search for words to see how they are signed in ASL with clear visual guides.
- Real-Time Translation: Sign in front of the camera to get the corresponding English translation instantly.
- Certification through Testing: Use the in-built testing system to verify your ASL gestures and certify your skills.

Installation and Setup

There is no installation or setup required for easyASL. Simply log in to the web application using your credentials,
and you can immediately start using the features such as the ASL dictionary, real-time translation,

and certification testing.

Troubleshooting

- Symbol Not Detected: Ensure your hands are fully visible within the designated frame.
- Slow Response Time: This may happen if too many requests are sent too quickly. Give the system a few moments.

Frequently Asked Questions (FAQs)

1. Do I need to install anything to use easyASL?

No, it is web-based. Just log in and start using it.

2. Why is the system not detecting my hand symbols correctly?

Ensure your hands are fully visible within the frame provided on screen.

3. What can I do if the system response is slow?

Slow response times may occur due to multiple requests. Let the system process each request fully.

4. How do I start learning ASL using this application?

Start with the ASL dictionary and learn common phrases like "more," "want," and "thirsty."

5. Can I certify my ASL skills using easyASL?

Yes, the in-built testing system allows you to certify your ASL skills by verifying gestures.