

AI Face Detection System

Complete Setup Guide for Beginners

1. Introduction

Welcome! This guide will help you run the AI Face Detection System.

No prior technical experience required - just follow along!

The system detects faces in real-time using your webcam and identifies:

- Age (approximate range)
- Gender
- Confidence level

2. What You Need

OPTION A (Easiest - Recommended): Use Replit

- ' Just a web browser and internet connection
- ' Free account at replit.com
- ' No installation needed!

OPTION B (Advanced): Run on Your Computer

- ' Node.js version 18+ ([download from nodejs.org](https://nodejs.org))
- ' A webcam for face detection
- ' 1 GB free disk space

3. Quick Start on Replit (Recommended)

Step 1: Create Replit Account

```
! Go to repl.it.com  
! Click "Sign up" and create a free account
```

Step 2: Create New Repl

```
! Click "+ Create Repl" button (top left)  
! Select "Import from GitHub"
```

Step 3: Upload Your Project

```
! Upload or drag and drop your project folder
```

Step 4: Run the Project

```
! Click the green "Run" button  
! Wait 1-2 minutes for installation
```

Step 5: Access Your App

```
! App opens in preview window  
! Allow camera permissions when prompted  
! Your system is now running!
```

4. Running on Your Computer

STEP 1: Install Node.js

1. Go to <https://nodejs.org>
2. Download the LTS version
3. Run the installer with default settings
4. Restart your computer

STEP 2: Extract Project Files

1. Extract the ZIP file to a folder
Example: C:\Users\YourName\face-detection

STEP 3: Open Terminal/Command Prompt

Windows: Press Win+R, type "cmd", press Enter
Mac: Press Cmd+Space, type "terminal", press Enter

STEP 4: Navigate to Project

Type: cd C:\Users\YourName\face-detection
(Replace with your actual folder path)

Installation Steps

STEP 5: Install Main Dependencies

Type: npm install
Wait 2-5 minutes for installation

STEP 6: Install Frontend Dependencies

Type: cd client
Type: npm install
Type: cd ..

STEP 7: Start the Application

Type: npm run dev
Keep this window open!

STEP 8: Open in Browser

Open browser and go to: <http://localhost:5000>
Allow camera permissions when asked

5. Using the System

PUBLIC VIEW (No Login)

- Camera feed displays automatically
- Real-time face detection
- Age and gender shown on faces
- All data saved to database

ADMIN LOGIN

1. Click "Login" button (top-right)

2. Enter credentials:

 Username: admin

 Password: admin123

3. Click "Login"

LOGOUT

Click the X button in top-right corner

6. Troubleshooting

Camera Not Working:

- ' Allow camera permissions in browser
- ' Close other apps using camera
- ' Try refreshing the page

"npm not found" Error:

- ' Install Node.js from nodejs.org
- ' Restart your computer
- ' Open a NEW terminal window

Port Already in Use:

- ' Close apps using ports 3001 or 5000
- ' Restart your computer

Blank Screen:

- ' Wait 30 seconds for models to load
- ' Check camera permissions
- ' Clear browser cache

7. Important Security Notes

FOR PRODUCTION USE:

1. Change default password immediately!
Default: admin / admin123 is NOT secure

2. Use HTTPS for secure connections
3. Backup your database regularly
Database: server/detections.db

4. Camera Privacy
 - Users must approve camera access
 - Data stays in your database
 - No data sent to third parties

8. System Information

PORTS USED:

- Port 3001: Backend API server
- Port 5000: Frontend website

DATABASE:

- Location: server/detections.db
- Type: SQLite

DEFAULT ADMIN:

- Username: admin
- Password: admin123

SYSTEM REQUIREMENTS:

- Node.js 18+
- 1GB RAM minimum
- Webcam
- Modern browser (Chrome recommended)

Quick Command Reference

Install dependencies:

```
npm install  
cd client && npm install && cd ..
```

Start application:

```
npm run dev
```

Access application:

<http://localhost:5000>

Stop application:

Ctrl+C (in terminal)