

YouTube Automation Tool Checklist

Steps to build and use a custom YouTube automation tool.

Based on [Watch](#) by Casey Builds It

Watch the video: https://www.youtube.com/watch?v=JFGYOVbYq_I

1. Understanding the Tool's Capabilities

Familiarize yourself with what the automation tool can do.

- Understand how to save time on writing descriptions and comments using AI.
- Learn how to automate the creation and uploading of YouTube Shorts.
- Discover how to transcribe videos using Faster Whisper.
- See how to generate descriptions and comments using Claude AI.
- Explore uploading full videos directly to YouTube via the YouTube Data API.
- Learn how to automatically slice videos into multiple Shorts.
- Understand how to manage existing videos on your channel.
- See how to edit, regenerate content, or swap thumbnails for existing videos.

2. Setting Up the Core Components

Gather and configure the necessary software and APIs.

- Install and set up Cursor IDE.
- Obtain access to Claude AI.
- Set up the YouTube Data API.
- Install FFmpeg for video processing.
- Install FFprobe for video analysis.
- Install Faster Whisper for transcription.

3. Scripting the Automation Logic

Develop the Python script to orchestrate the automation.

- Write script to handle local video file input.
- Integrate transcription functionality using Faster Whisper.
- Implement AI integration for description and comment generation (Claude).
- Code the YouTube Data API integration for video uploads.
- Develop logic for slicing videos into Shorts.
- Add functionality for generating Shorts descriptions and comments.
- Implement thumbnail handling for full videos.
- Note limitations for thumbnail generation on Shorts.

4. Building the Graphical User Interface (GUI)

Create a user-friendly interface for the tool.

- Design the GUI layout.
- Integrate script functionalities into the GUI.
- Implement video upload controls.
- Add controls for Shorts creation.
- Develop interface for description and comment editing.
- Implement thumbnail selection within the GUI.

5. Implementing Video Processing for Shorts

Configure FFmpeg and FFprobe for Shorts creation.

- Configure FFmpeg for video cutting.
- Set up FFmpeg for blurred background effects on Shorts.
- Utilize FFprobe for video analysis during cutting.
- Ensure correct aspect ratios for Shorts.

6. Integrating with YouTube Data API

Connect the tool to YouTube for uploads and management.

- Authenticate with the YouTube Data API.
- Implement video upload functionality.
- Set video titles, descriptions, and tags via API.
- Implement comment posting via API.
- Handle API rate limits and errors.
- Configure API for uploading Shorts.

7. Developing the Video Management Section

Build the feature for managing existing YouTube videos.

- Implement functionality to pull existing videos from the channel.
- Add options to edit video titles.
- Add options to edit video descriptions.
- Enable regeneration of AI-generated content.
- Implement thumbnail swapping functionality.
- Ensure changes are reflected via YouTube Data API.

8. Future Enhancements and Considerations

Plan for potential future features and improvements.

- Consider connecting the tool to a website for automatic blog page generation.
- Explore options for releasing the tool (free or paid).
- Gather user feedback for desired features.

- Investigate advanced AI models for content generation.
- Optimize transcription speed and accuracy.
- Improve error handling and logging.

Resources & Further Reading

Use these pages while working through the checklist:

Casey Builds It | -
- | caseybuildsit.com

Automate your YouTube workflow with AI and custom tools.