

YouTube Automation Tool Checklist

Steps to build and implement your own YouTube content automation pipeline.

Based on [I Built A Full Youtube Automation Tool With Cursor Ai Auto Upload Shorts Descriptions](#)
[More](#) by Casey Builds It

1. Core Automation Pipeline Setup

Establish the foundational elements for your YouTube content automation.

- Integrate a transcription service (e.g., faster-whisper) to generate transcripts from video files.
- Connect an AI model (e.g., Claude) for generating SEO-friendly descriptions.
- Set up the YouTube Data API for automated video uploads.
- Implement FFmpeg and FFprobe for video slicing and formatting.
- Develop a Python-based automation script to orchestrate these components.

2. Content Generation Features

Automate the creation of essential video metadata and supporting content.

- Configure AI to write a unique description for each long-form video.
- Automate the creation of a compelling first comment for each video.
- Enable AI to generate descriptions for individual Shorts clips.
- Set up AI to create unique thumbnails for each Short.
- Ensure AI generates a first comment for each Short.

3. Shorts Creation Workflow

Automate the process of converting long-form content into short-form videos.

- Implement logic to slice long-form videos into multiple Shorts.
- Develop smart cropping functionality to follow on-screen action.
- Add formatting for vertical Shorts (e.g., blurred backgrounds).
- Ensure each Short is cropped and formatted correctly.
- Test the Shorts generation process for consistency.

4. User Interface and Management

Build user-friendly interfaces for managing and interacting with the tool.

- Develop a Graphical User Interface (GUI) for the Python script.
- Create a video management dashboard.
- Implement functionality to pull up existing YouTube videos within the dashboard.
- Add the ability to edit video titles through the dashboard.
- Integrate thumbnail swapping functionality in the dashboard.
- Enable content regeneration for existing videos via the dashboard.

5. Advanced Integrations (In Progress)

Explore and implement additional features for expanded automation.

- Begin development of blog integration for auto-publishing videos.
- Aim to auto-publish videos to dedicated pages on your website.
- Continuously refine the smart cropping algorithm for Shorts.
- Explore and test alternative AI models for content generation.
- Investigate further optimizations for transcription speed.

6. Testing and Refinement

Thoroughly test and iterate on the automation pipeline.

- Test the end-to-end upload process for a full video.
- Verify the accuracy and quality of AI-generated descriptions and comments.
- Confirm that Shorts are generated with correct aspect ratios and content.
- Check the functionality of the GUI and management dashboard.
- Monitor the time saved compared to manual posting.
- Gather feedback and make necessary adjustments to the pipeline.

Resources & Further Reading

Use these pages while working through the checklist:

■ Casey Builds It

<https://caseybuildsit.com/the-files/>

■ Casey Builds It

<https://caseybuildsit.com/make-contact/>

■ Casey Builds It

<https://caseybuildsit.com/>

■ Downloads

<https://caseybuildsit.com/downloads/>

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Automate your YouTube workflow to save time and focus on content creation.