

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 Setup

Establish the foundational elements of your YouTube automation tool.

- Integrate a transcription service (e.g., faster-whisper) to generate transcripts from local video files.
- Connect an AI content generation model (e.g., Claude) to process transcripts.
- Implement YouTube Data API for automated video uploads.
- Set up FFmpeg and FFprobe for video manipulation and cutting.
- Develop a Python-based automation pipeline to link all components.
- Build a Graphical User Interface (GUI) for easier interaction.
- Create a video management dashboard for existing content review and editing.

2. Content Generation - Long Form

Automate the creation of content for your main YouTube videos.

- Generate video transcripts using a local file.
- Use AI to write SEO-friendly descriptions based on the transcript.
- Have AI automatically generate a compelling first comment for the video.
- Configure the tool to upload the generated video and its metadata.

3. Shorts Creation Pipeline

Automate the process of creating and publishing YouTube Shorts.

- Slice long-form video into multiple short clips using FFmpeg/FFprobe.
- Implement smart cropping to follow the action on screen.
- Format each short clip for vertical viewing.
- Add blurred backgrounds to Shorts clips.
- Generate unique AI descriptions for each Short.
- Create AI-generated comments for each Short.
- Automatically generate thumbnails for each Short.
- Automate the upload process for each created Short.

4. AI Integration & Prompts

Leverage AI effectively for content creation.

- Experiment with AI prompts for description generation.
- Refine AI prompts for first comment creation.

- Develop AI prompts for Shorts descriptions.
- Test AI prompts for Shorts thumbnail generation.
- Ensure AI outputs are relevant and engaging.

5. Video Management & Editing

Manage and refine your uploaded YouTube content.

- Access a dashboard to view existing YouTube videos.
- Edit video titles directly through the dashboard.
- Swap out video thumbnails as needed.
- Regenerate content (descriptions, comments) after initial upload.
- Review and select clips for Shorts creation.

6. Advanced Features & Future Development

Explore additional functionalities and ongoing improvements.

- Integrate blog auto-publishing for videos.
- Develop dedicated web pages for video content.
- Continuously refine the smart cropping algorithm.
- Explore new AI models for content generation.
- Add support for different video formats.
- Optimize the pipeline for faster processing times.

7. Tooling and Technologies

List the key technologies used in building the automation tool.

- Utilize Cursor AI for development assistance.
- Implement faster-whisper for local transcription.
- Integrate Claude for AI content generation.
- Leverage FFmpeg and FFprobe for video processing.
- Connect with the YouTube Data API for uploads.
- Develop using Python for the core pipeline.
- Build a GUI for user interaction.

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.