

REPLIT AI BUILD INSTRUCTIONS

Goal: Build a professional frontend that sends voice generation requests to our F5-TTS FastAPI backend hosted on RunPod and plays back the result with download, speed, volume, and SSML pause support.

1. HTML + CSS + JS Frontend

Build a single-page web interface with the following:

- Text area for input (gen_text)
- Text area for reference transcript (ref_text)
- Input for voice_name (e.g. "about_star_trek")
- Speed slider (range 0.5-1.5, default 1.0)
- Volume slider (0-100, default 100)
- Audio player (<audio controls>)
- MP3 download button (auto-generates link after playback)

2. Backend API URL

When the "Generate" button is clicked, send a POST request to:

<https://0q8lf8gdlh6u8t-7860.proxy.runpod.net/generate>

Use multipart/form-data with these fields:

gen_text: <text with optional SSML like <break time="1s"/>>

ref_text: <reference transcription>

voice_name: <base name of wav file on RunPod (e.g. about_star_trek)>

speed: <speed multiplier from slider, e.g. 0.9>

3. Playback & MP3 Download

- Play the response audio (WAV) in the browser
- Convert it to MP3 using fflate.js or browser blob (optional)
- Allow user to download output as MP3 using <a download> link
- Apply volume control via <audio> element or gain node

4. SSML + UX Enhancements

- Provide a help tooltip to insert <break time="1s"/> for pauses
- Optional: template buttons like "Insert 1 sec pause", "Insert 2 sec pause"

Example Payload Structure (JS)

```
const form = new FormData();  
form.append("gen_text", genText);  
form.append("ref_text", refText);  
form.append("voice_name", voiceName);  
form.append("speed", speedSlider.value);  
  
const response = await fetch("https://0q8lf8gdlh6u8t-7860.proxy.runpod.net/generate", {  
  method: "POST",  
  body: form  
});
```

Then:

- Convert response to Blob
- Use URL.createObjectURL(blob) for audio playback
- Use same URL for download

Summary Features to Include

- Text input for custom speech
- Reference transcript input
- Voice selector (text input)
- SSML-friendly (supports <break time="1s"/>)
- Speed slider (0.5-1.5)
- Volume slider
- Audio preview
- MP3 download button
- Mobile friendly layout

You'll be able to clone a voice, control speed and pacing, support expressive pauses using SSML, and export audio on the fly.

