Digital DJ

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Our goal is to design a DJ mixing setup. With interfaces including buttons, switches, sliders, motors, and potentially video input, the project would make it possible to control the playback and sound of one or more recordings of music.

The major features would likely include: layering tracks, fading between tracks, changing the pitch of tracks, slowing down or speeding up tracks (with or without changing pitch), lining up the beats of multiple tracks, "scratching" tracks by rapidly jumping within them, and previewing tracks through headphones before they're played through headphones.

A simultaneous visual display would present information including: where playback was in the waveform of the track, how much the pitch and speed of playback had changed from the original, what frequencies were currently dominant, and which tracks were coming up.

We plan to store pre-recorded tracks—and record the result of remixing tracks—on flash memory.