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LAB 3 REPORT:

Description of sound player:

The sound player uses PWM to output one of two different sounds, depending on user choice. For a while we had issues getting the sound data onto the board; we eventually solved this by running the audio files through MATLAB and putting the resulting hex values into two different block RAMs. By playing a series of PWM values at the frequency specified by each audio file, we were able to recreate the sounds on the board.

Behavior of sound player:

- Turns on into idle state. No sound is played.
- Pressing the UP button plays one sound, then no sound plays.
- Pressing the DOWN button plays a different sound, then no sound plays.
- Pressing one button then the other will play the one sound, then the other when the button is pressed.
- Holding a button causes its sound to loop.
- If both buttons are held, the current sound plays to completion, then no sound plays.
- Releasing one button causes the other button's sound to play.