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10/18/19

Project Title:

Note-ifier

Team Members:

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Project Description:

Our project will rely on input from an electric guitar, which will generate an analog waveform. Our FPGA will sample and digitize this waveform. Using digital signal processing techniques, the FPGA will detect note onsets, offsets, and the pitch being played. This information will be converted into a MIDI data stream, which can be recorded and/or played back by other MIDI compliant devices. If additional functionality is required, the FPGA can serve as a loop pedal. Our greatest foreseeable obstacles are differentiating between low frequency notes and identifying multiple notes being played simultaneously.