

Integrated Violin Magnetic Pickup and Optical Transmission System

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Project Description:

The integrated system is consisted of a magnetic pickup, miniature battery powered preamp, ADC stage, long optical transmission line, DAC stage, effects mixer-compressor, and power amplifier. The goal of the system is to allow for multiple preamp devices and long transmission lines for large concert hall performances. The system should be compacted as to not impede the performer, and the transmission line should be robust enough to not introduce any noise along lengthy runs. These transmission lines will converge to a centralized, multi input mixer and effects stage to be processed before being sent to the speaker outputs. Stretch goals of this project would be having a PCB preamp/ADC stage, a tube based compressor/overdrive system using staved cathode configuration, and a powerful enough output stage to drive a small stage monitor speaker. The approved abstract will be posted on the course website.