Sketch of Project

Acoustic Environment

- Fiter (switch): to choose "0" for Bandpass or "1" for Lowpass

- Exterior Mic: to get the environment noise outside

- Pilot's Mic: to get the signal of music in noisy environment

LMS Function

The whole ANC system, including Adaptive Filter W(z) and FxLMS Algorithm.

(Details in Matlab codes)

- signal_in: primary noise

- desired: music in noisy environment

- step_in: a constant which need to adjust to apply the best effect

- signal_out: the estimated noise

- err: music with noise signal - estimated noise

- weights_out: the always updating weights matrix