

MMI505/606
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Assignment 1: Introduction to Audio Plug-Ins

1. Download the VST (Mac and PC) and/or CoreAudio (Mac only) SDKs. (The CoreAudio SDK contains everything you need to begin developing AudioUnits plug-ins.) Read through the relevant documentation.
2. Study and compile several of the included sample plug-ins.
3. Create a two-point moving average filter plug-in called **YourLastNameFiveZeroFilter**. The software should provide only a means for selecting whether the filter is lowpass or highpass (i.e., whether the zeroes are all at +1 or -1).
4. Create a comb filter plug-in called **YourLastNameComb**. The plug-in should implement the difference equation $y_t = x_t + R^L y_{t-L}$ and provide user controls for R ($R < 1.0$) and L . What happens if you recompile and allow $R > 1.0$?
5. Create a two-pole reson filter called **YourLastNameResonFilter** using the design procedure I showed you in class.
6. When you are finished with both plug-ins, upload them (no source code is necessary, only the finished plugs) to the course wiki site and be prepared to demonstrate them by the beginning of class next **Thursday, 5 February**.