**MSE 310 Project 1 Features Checklist**

**Group 19**

Sherwin Jay Pacamarra

Jaskanwal Singh Mundra

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Please type X in the status section for a completed feature.

X – implemented

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| **ID** | **Feature** | **Status** |
| **1** | **Input Channels (15%)** |  |
| 1.F1 | Able to direct input from a PC’s microphone jack |  |
| 1.F2 | Read prerecorded .wav sound file |  |
| 1.F3 | Read a prerecorded csv file |  |
| **2** | **Time Domain Features (30%)** |  |
| 2.F1 | Able to display the time-domain signal on the screen |  |
| 2.F2 | Knob to control the time |  |
| 2.F3 | Knob to control amplitude |  |
| 2.F4 | Knob to control phase |  |
| 2.F5 | Knob to control offset |  |
| 2.F6 | Mini display of the calculated peak – peak amplitude, RMS, and frequency of the signal (if periodic) |  |
| 2.F7 | HOLD button to freeze the screen |  |
| 2.F8 | Vertical cursors to measure time difference between the cursors |  |
| **3** | **Frequency Domain Features (30%)** |  |
| 3.F1 | Switch to show single sided Fast Fourier Transform (FFT) of the input signal |  |
| 3.F2 | Low pass filter to the input signal |  |
| 3.2F.1 | User can choose cut-off frequency between 1-20 kHz |  |
| 3.2F.2 | Drop down menu to select the type of filter |  |
| 3.2F.3 | Control the order of the filter |  |
| 3.3F | High Pass Filter to the input signal |  |
| 3.3F.1 | User can choose cut-off frequency between 1-20 kHz |  |
| 3.3F.2 | Drop down menu to select the type of filter |  |
| 3.3F.3 | Control the order of the filter |  |
| 3.4F | Able to apply a moving average filter to the signal |  |
| 3.4F.1 | Control the averaging window size |  |
| 3.4F.2 | Overlay the average on raw input |  |
| **4** | **Aesthetics and User Interface (15%)** |  |
| 4.1F | The user interface AND block diagram is easy to understand |  |
| 4.2F | Program is divided using subVI’s |  |
| 4.3F | Program is documented using comments |  |
| 4.4F | The user does not need to scroll up or down, the program auto fits a user’s monitor regardless of monitor/display resolution |  |
| **5** | **Other Features (10%)** |  |
| 5.1F | Save scope screen as png |  |
| 5.2F | Web Interface |  |
| 5.3F | The program is available as a generated binary file, so a user does not need LabVIEW to run the code (see Application Builder) |  |