**MSE 310 Project 2 Features Checklist**

**Group 19**

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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 Select** |  |
| 1.F1 | Wav file | X |
| **2** | **Signal Conditioning** |  |
| 2.F1 | Filter noise from input signal | X |
| 2.F2 | Absolute value so values are from 0-1 | X |
| 2.F4 | Get clean DC DTMF tones with low pass filter | X |
| 2.F5 | Get derivative of signal and filter it | X |
| 2.F6 | Digitize the signals (clean square wave) | X |
| **3** | **Real Time Signal Processing** |  |
| 3.F1 | Able to process the DTMF wav file as if it’s a real time signal | X |
| **4** | **Offline Signal Processing** |  |
| 4.1F | Detect rising edge and falling edge | X |
| 4.2F | From FFT, determine the number associated with a single DTMF tone from rising edge index to falling edge index | X |
| **5** | **Display** |  |
| 5.1F | Offline - Numeric indicator to show DTMF numbers as strings concatenated one after another | X |
| 5.2F | Real Time – Display the DTMF numbers one by one as they come up | X |
| **6** | **Failsafe** |  |
| 6.1F | Upon power off midway, remember previous number  By writing DTMF number into a backup file in the same directory |  |

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| **7** | **Executable** |  |
| 7.1 | The real time VI and offline VI is offered through two individual executables found in the executable folder | X |