**University of Pittsburgh**

**Department of Electrical and Computer Engineering**

**ECE 1896: Senior Design Projects – Spring 2020**

**Assignment #1: Idea Conception**

**Due Sunday 1/5/2020 (Before Midnight)**

1. Please fill out the welcome survey (Your responses are confidential):

<https://pitt.co1.qualtrics.com/jfe/form/SV_ey9Ds3O2vjIMzUF>

**2.** Browse through the projects from the previous two semesters (Courseweb🡪Course Documents🡪Previous Projects). This will give you an idea of what the appropriate scale and scope for a senior design project is. Note that a good project usually (but not always) includes a mix of hardware, software and the application of advanced engineering math or science. It is not necessary for your idea to be completely novel or something that has never been done before but your design and implementation should be unique.

**3.** Come up with at least one idea for a semester project and write a 1 paragraph description of it using the attached page as a rubric. Provide a high-level description of your idea and describe the benefits of your design or unmet need that it fulfills. At this stage you shouldn’t worry too much about the implementation details and simply focus on the concept. Even if you already know who you want to work with and what you want to do, you should still submit your own idea for a project. We will have an activity where we evaluate all the idea submissions and form teams. Not all ideas will end up being used, but everyone is required to submit one idea.

**4.** After you have entered your idea in the text boxes, save the document and submit it (as a word document) via Courseweb. This assignment is due the night before midnight on 1/5/19.

**Project Title**

Sheet Music Recorder

**Short Project Description (Describe the idea in one sentence)**

Records audio from an instrument and converts it into tabs/sheet music.

**Proposed Project Idea**

This application would allow musicians to more easily record their instruments for a song they are writing because they would not need to stop playing to manually write down notes. The app will record the audio from an instrument and convert it to sheet music automatically. Voice commands could be added so the musician would not need to put down their instrument to start/stop recording. Other features like a metronome and tuner for various instruments can be added.