This week, we finished our website and published the URL to the class webpage. Additionally, we began planning and brainstorming designs for the device and aspects of the software.

With regards to the software, we researched and found various examples of audio classification systems that used a variety of machine learning algorithms to varying degrees of success. Additionally, we researched what features could be extracted to optimize machine learning models, including FFTs, Wavelets and Frequency Cepstrums. We also met with Dr. Barbour to discuss reference texts that could help us better understand the theory behind these audio features. Finally, we found the computational and time complexity of the more promising algorithms to help in our analysis of which model we will finally choose.

With regards to design aspects of the stethoscope, we researched and found information on the filtering and frequency ranges of sound recording stethoscopes. We also found a piece detailing how the Eko Core Attachment, a popular solution we have come across in research, was used to perform cardiac auscultation.