First Mile stone script:

Name school year project funct tion demo what I did.

Hello I am Andrew a rising junior from Lowell High School. My Main Project is a Electronical reader that will read the words in a book to you through sound. The finished project should have a camera up here, which will take a picture of the book and a speaker will speak the word on the page, and afterit

inish reading the book, a mechanism that turns pages will auto matically turn the page. Now the thing I have here right now is the Mechanism that flips pages. The roller here will turn and wrinkle the page and the rod will go into the wrinkle in the page and flips it over. Here is a demostration. As you can see, it is not fine tuned very well, I will continue to improve it through out the future. Some difficulty That I encountered is to find a way to let the servo for the roller to slide freely, but not much movement horizontally. The solution I came up with is to create a bracket that connects to the servo but also creates a channel to let the rail slide in. Thank you for listening and see you next time.

Script: Milestone 2

Hello, my name is Andrew, a rising junior at Lowell High School. This is my second milestone video. In this video I will demonstrate and explain how the software part or how the machine is going to recognize the words in the book. The core of this part is a OCR engine or Optical Character Recognition Engine, which is basically a program that will find characters in a picture and put them down in a text file by detecting groups of pixel in a picture that seems to look like characters. Since I am not advanced enough to program a OCR engine myself, I uses an already created OCR called Tesseract. So you see the camera on top will take a picture of the pages and send it to the Tesseract to get the character recognized. After it finish recognizing the character it will send the result to another program called a Text to Speech engine which will turn the text into words you hear. The Text to Speech engine is called Espeak, you can find both Tesseract and Espeak online if you are interested. Unfortunately I don’t have a speaker today with me, you won’t be able to hear the sounds, however, you can see on the Python shell that the command for espeak is run.