

6.111 Project Abstract – 3D City  
Grace Cassidy and Khalil Elbaggari

Our project involves rendering a 3D city, with shading of polygons, and moving from a first person perspective. The movement would be controlled with the buttons on the Nexys 4 board or a joystick. It would first be implemented with wire frames, and then progress with shaded polygons, and then background sound. There are more features that we could add if we achieve these initial goals. This project will involve saving the frames to RAM and accessing the frames with ZBT to write and read quickly. Additionally, it involves computing the transformations to render the 3D images in 2D. The sound will involve reading from an SD card on the Nexys 4 board. The stretch goals would include adding textures to the polygon surfaces, making a maze, and adding acceleration to implement running or walking.