Status Report #1: Nathan Levin (Team A5)

Topics Worked On This Week

Vivado:

In accordance with the Gantt chart, I've downloaded Xilinx's Vivado suite (specifically: Vivado HL WebPACK), and have been watching their online tutorial and help videos (beginning with: Getting Started with the Vivado IDE) to understand how it differs from Quartus, which is the environment I'm currently more accustomed to. Their written tutorial has also been a good reference, though I have not completed it yet.

Project refinement:

I spoke with Professor Mai regarding his commentary on our project. Essentially, while the core concept of a tracking camera is sound, we need a better use case than a security camera to drive system requirements. Among my group, we are discussing the prospect of switching to a standalone, battery-powered sports camera or lecture camera. Given a requirement of, say, 3 hours of runtime (length of a long lecture or game), we can better quantify our power requirements.

Parts ordering:

We requested that the Ultra96 board be ordered for us. However, pending some changes to the project design, we've put the camera order on hold until the following week. The motor and controller(s) will be ordered at a later date when their interface is better established.

Topics For Next Week

Vivado cont:

I need to complete the Vivado tutorial and a few higher level videos in their series.

reVISION:

I need to start working on Xilinx's reVISION software stack, including downloading and understanding the SDSoC Development Environment, which is the basis for translating the software function of the neural net code to RTL on the FPGA.

Scheduling comments:

I am about a day behind schedule, as I had aimed to complete the Vivado tutorial by now. I will complete that this weekend so I do not fall behind over the coming week.