

Team Name: sdmay21-09

Team Members: Cristian George, Evan McKinney, Jacob Vaughn, Jesse Knight, Matthew Campbell, Noah Berthusen

Report Period: Sept 14-Sept 27

Summary of Progress in this Period

Sep 20 - We met with Varghese in person to see the equipment that we will be using for the project. Varghese also gave a demo of the code used and demonstrated how the waveforms collected by the probe looked through a digitizer. We were unable to get hands-on experience with the hardware as the oscilloscope that Varghese had was currently unavailable due to an ongoing power side-channel experiment. Reserved an hour-long time slot in the TLA to get hands-on experience using a 2-stage pipelined ATmega Arduino board.

Sep 27 - Met from 4 to 5 pm at the TLA with Varghese to observe probe output through the oscilloscope probe. Varghese also provided the scripts that he was using to trigger operation execution on the microcontroller. We recognized how noisy even a two-stage pipeline was and recognized the possibility of additional noise with longer pipelines. We also noticed additional noise caused by an I/O trigger and during a reset, may need to use a digital trigger to avoid such noise.

Pending Issues

We are still not sure what the process is for purchasing equipment. We plan on purchasing our own dev board and probe so experiments can be run without using too much of Varghese's own equipment.

Plans for Upcoming Reporting Period

Order materials needed for the project and assemble EM antenna. Also begin to modify provided code to work with new parts being ordered.
