

# EECS 151 Final Project Report Division of Labor

Scott Shao. Team 16. Project partner: Wade Burns.

This semester is difficult for both of us. We are both taking multiple classes with big projects at the same time. Wade was also taking EE 140 and was recruiting for full time position, and I am taking CS 162 and Chem 115 along with this class. Due to the tight project deadlines and other projects, we can only have limited time to work on this project and even less time to meet together to work on this project side by side before the deadline approaches. I really love this class and this project so I really feel bad that we couldn't finish this project by the deadline. I will work on this till finish after the finals.

The division of labor was largely unequal and I did the majority of the works. We discussed and lied out the datapath together then I drew the whole datapath draft myself on draw.io. We had some peer coding sessions during the lab toward the beginning of the project cycle, but then we had some problem with the division of the labor. We have both implemented some basic modules such as flip flop, alu, and multiplexers. However, I wrote the csr\_reg, jalpcgen, store, brcond, load, entire control logic, imm\_gen, and Riscv151 file by myself. I also wrote the io\_mem module by myself. I also wrote testbench for alu, pwm handshake, and flip flop myself. I debugged the system to pass the assembly testbench and isa\_tests by myself. We had some good peer programming sessions after passing isa\_tests to try to pass the checkpoint two. Wade provided some good insight on some of the control logic flaws and datapath design. I updated the datapath design myself before passing the isa\_tests but we did it together after the isa\_tests. I wrote the UART and memory mapped IO myself but Wade provided a lot of help during the UART design and debugging. After checkpoint two, we designed and implemented the FIFO and piano together. Wade was then focused on the music synthesizer part of the project since that's what he's most interested in. I was then focused on passing the square\_piano and ran out of time. I did some optimization attempts and did testingentence structure for different clocks. I wrote the bulk of the final project report and Wade helped me with the grammar and sentence structure. He also wrote the part for the pwm handshake and music synthesizer.

Overall, I don't think we contributed equally. I sacrificed my CS 162 homework and projects to spend more time onto this project, I know Wade also sacrificed a lot but it would be great if he contributed a little bit more. I totally understand the difficulties in time management when all the projects are due at the same time and frankly i believe my 162 project partners think I am a terrible project partner. It is our collective mistakes to have such a poor time management that ultimately resulted in this unequal labor division and failure to complete the project.