Lattice FPGA Project Weekly Progress Report - Week 8

Report date: 2025/2/27

- **Last Week (time in hours)**
  - Team Review
    - Got RISC-V Core on Radiant
    - SPI module on board through Radiant!!!
  - Nathaniel Fraly
    - Troubleshooting Radiant bitstream upload (3)
    - Research SPI flash chip present on UPDuino devices (2)
  - Riley Cox
    - Trying to put bitstream on UPduino through Radiant (4)
  - Mohammad Alshaiji
    - Debugging FTDI issue in lattice Radiant (5)
    - Catching up on meeting agenda backlog 75% complete (1)
    - Begin preliminary research for implementation of SPI controller with Icicle
  - Xiang Li
    - Research on Adafruit-GFX-library(3)
    - Document on how to fill in color of screen(3)
    - Learning to use Radiant tool(1)
  - Haoyang Han
    - 3D modeling of the second version，Based on sponsor（5）
- **Next week**
  - Team Plan
    - Continue incremental progress towards completion of phase 1
    - Figure out how to get C program on board through Radiant
  - Nathaniel Fraly
    - Actually get to buttons and PWM this week. Will starve self to achieve if needed
  - Riley Cox
    - Integrate SPI core with Icicle with Mohammad
    - Work on developing commands to have Icicle communicate with LCD
  - Mohammad Alshaiji
    - Test initialization of screen using spi controller
    - Begin integration of SPI core with Icicle with Riley
    - test Xiang's color commands with SPI controller
  - Xiang Li
    - Go back to any issues the implementation is stuck
    - Fix any bugs on lighting up the screen
  - Haoyang Han
    - Continue to improve 3D modeling
- **Blocked**
  - Team Blocks
    - C program on board through Radiant
  - Nathaniel Fraly
    - Radiant behavior sometimes non-deterministic with FTDI driver; will cause issues persistently until a solution is found. Soft block
  - Riley Cox
    - Issues with flashing bistream using Radiant

        - Unsure how to put C program into memory via Radiant
    - Mohammad Alshaiji
        - Experiencing FTDI issues with SPI controller, attempting to fix with documentation provided by Rahul
    - Xiang Li
        - None
    - Haoyang Han
        - The shape requested by the sponsor is a bit difficult to model.