

# Weekly Progress Report

## Capstone Team 8 RISC-V CleanFlight/BetaFlight Port

### Week #12

**Date: 03/23 - 03/30**

#### Authors:

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#### Summary:

Bliss check ins:

##### - Monday

- **Done**
  - Weekly Report layout rework
- **Doing**
  - Betaflight Repo Deepdive
  - Assisting Eric with Makefile Debugging

##### - Tuesday

- **Done**
  - Received MaiX BiT boards x2
- **Doing**
  - Betaflight Repo Deepdive
  - Assisting Eric with Makefile Debugging

##### - Wednesday

- **Done**
  - Assisting Eric with Makefile Debugging
- **Doing**
  - Betaflight Repo Deepdive
  - Tuning src/main/target/MAIXBIT/target.h file to shrink dependencies

##### - Thursday

- **Done**
  - Tuning src/main/target/MAIXBIT/target.h file to shrink dependencies
- **Doing**

- Finding the necessary flags for the Kendryte SDK in /make/mcu/MAIXBIT.mk to compile for RISC-V in the Betaflight makefile
  - Build Trello board
- **Friday**
  - **Done**
    - Built Trello board
    - Compiled hello\_world with the Kendryte SDK
  - **Doing**
    - Finding the necessary flags for the Kendryte SDK in /make/mcu/MAIXBIT.mk to compile for RISC-V in the Betaflight makefile

Eric check ins:

- **Monday**
  - **Done**
    - Created target.h, target.c, target.mk for MAIXBIT target.
  - **Doing**
    - Trying to successfully compile an executable with the new target.h, target.c, target.mk. (Getting about 14 “undefined reference” errors).
- **Tuesday**
  - **Done**
  - **Doing**
    - Continuing to resolve “undefined reference” errors during MAIXBIT compilation.
- **Wednesday**
  - **Done**
    - Resolved “undefined reference” errors.
    - We now have a stripped-down version of target.h that compiles for our new MAIXBIT target.
  - **Doing**
- **Thursday**
  - **Done**
  - **Doing**
    - Begin updating directory paths and Makefile variables in MAIXBIT.mk
- **Friday**
  - **Done**
    - Finished updating directory paths and Makefile variables in MAIXBIT.mk
  - **Doing**
    - Begin adding K210 compiler/linker flags into MAIXBIT.mk

Niko check ins:

- **Monday**
  - **Done**

- Created a python (search.py) script that checks to identify dependencies in files
- **Doing**
  - Creating a list with all of the necessary changes in Makefile and dependencies
  - Submit performance report to roy
- **Tuesday**
  - **Done** Makefile dependencies, drivers, platform.h
  - **Doing** linking and modifying the .ld file
- **Wednesday**
  - **Done** added drivers from SDK
  - **Doing** working on tools.mk
- **Thursday**
  - **Done** Mostly team meetings
  - **Doing** work on tools.mk
- **Friday**
  - **Done** Installed the toolchain, modified MAIXBIT.mk, added user stories in Trello
  - **Doing** insert cmakes in BF

Ruben check ins:

- **Monday**
  - **Done**
    - Sick
  - **Doing**
- **Tuesday**
  - **Done**
    - Sick
  - **Doing**
- **Wednesday**
  - **Done**
    - Got access to betafight dev commits on prior board port
    - Got up to speed with Eric on changes
  - **Doing**
    - Pulled Eric's code and started to make changes to MCU/target.h
- **Thursday**
  - **Done**
    - Attended Agile meeting
    - Attended meeting with group to create new tasks
  - **Doing**
    - Pulled Eric's code and started to make changes to MCU/target.h
- **Friday**
  - **Done**
    - Added tasks to Trello

- **Doing**

- Researched config memory for FC
- Reviewed config mem code
- Contacted Kendryte and Canaan (SoC maker) about TRM because I cannot find it. Canaan replied and mentioned, TRM is not available. No response from Kendryte.

**Weekly Issues:**

1. TRM (tech ref manual) is not available. Per Canaan (SoC maker), it's not ready as of today. They sent us an email.

**Notes:**

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