

Individual Weekly Report

Name: Aysen De La Cruz

Team: Bray IIoT Smart Solution

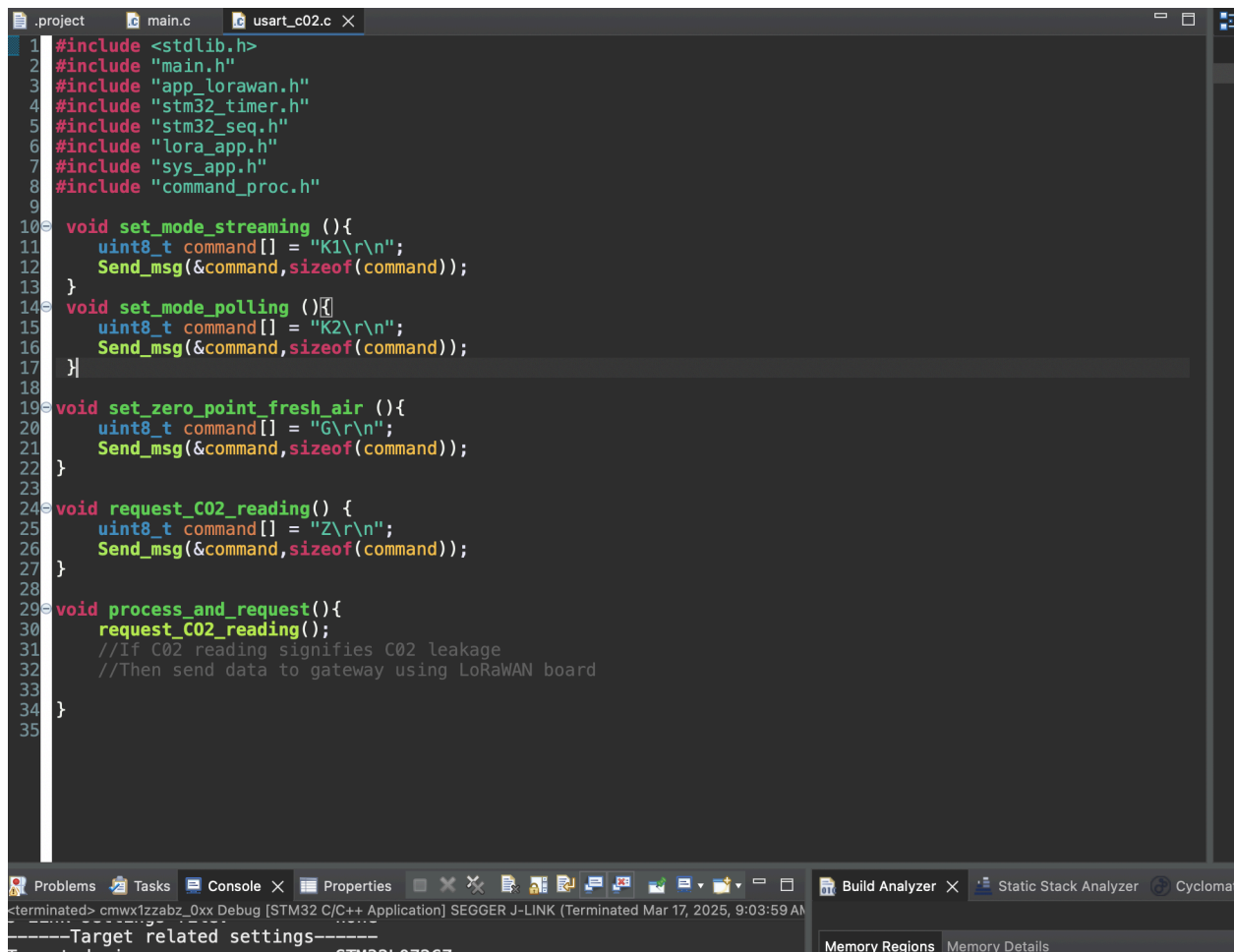
Date: 03/17/2025

Current Status

1. What did you **personally** work on this past week?

Task	Status	Time Spent
I wrote functions to send the USART commands that we will need (required reading multiple manuals).	Complete	5 Hours
Flashed firmware to the board	Complete	1 Hour

Include **screenshots/graphics** to illustrate what you did this past week:



```
1 #include <stdlib.h>
2 #include "main.h"
3 #include "app_loRAWan.h"
4 #include "stm32_timer.h"
5 #include "stm32_seq.h"
6 #include "lora_app.h"
7 #include "sys_app.h"
8 #include "command_proc.h"
9
10 void set_mode_streaming () {
11     uint8_t command[] = "K1\r\n";
12     Send_msg(&command, sizeof(command));
13 }
14 void set_mode_polling () {
15     uint8_t command[] = "K2\r\n";
16     Send_msg(&command, sizeof(command));
17 }
18
19 void set_zero_point_fresh_air () {
20     uint8_t command[] = "G\r\n";
21     Send_msg(&command, sizeof(command));
22 }
23
24 void request_CO2_reading() {
25     uint8_t command[] = "Z\r\n";
26     Send_msg(&command, sizeof(command));
27 }
28
29 void process_and_request() {
30     request_CO2_reading();
31     //If CO2 reading signifies CO2 leakage
32     //Then send data to gateway using LoRaWAN board
33 }
34
35
```

Problems Tasks Console Properties Build Analyzer Static Stack Analyzer Cycloma

terminated> cmwx1zzabz_0xx Debug [STM32 C/C++ Application] SEGGER J-LINK (Terminated Mar 17, 2025, 9:03:59 AM)

-----Target related settings-----

Memory Regions Memory Details

2. What problems did you run into? What is your plan for them?

The problem I ran into was that the current Bray code is built around receiving data from the torque bracket, now that Bray has finally given us a mock torque bracket that can simulate it, we can run the board with flashed firmware and see when and how the board sends packets.

3. What is the current overall project status from your perspective?

We are in a rough spot, we are falling behind. With the current developments, we made from Bray, I am hopeful we will be able to catch up with development.

4. How is your team functioning from your perspective?

Honestly, we all get along, but in terms of getting work done, we all have fallen behind on that.

5. What new ideas did you have or skills did you develop this week?

Well, I officially can say I know how to flash firmware to a board now, as well as how to communicate within USART communication protocols.

6. Who was your most awesome team member this week and why?

Probably, Matthew. We both drove to Houston again this week to get the mock torque bracket.

Plans for Next Week

What are you going to work on this next week?

For this coming week I will continue to work on writing the firmware, the main goal is to understand when the board sends a torque packet, and how we can write in the current code to send a packet containing CO2 sensor data.