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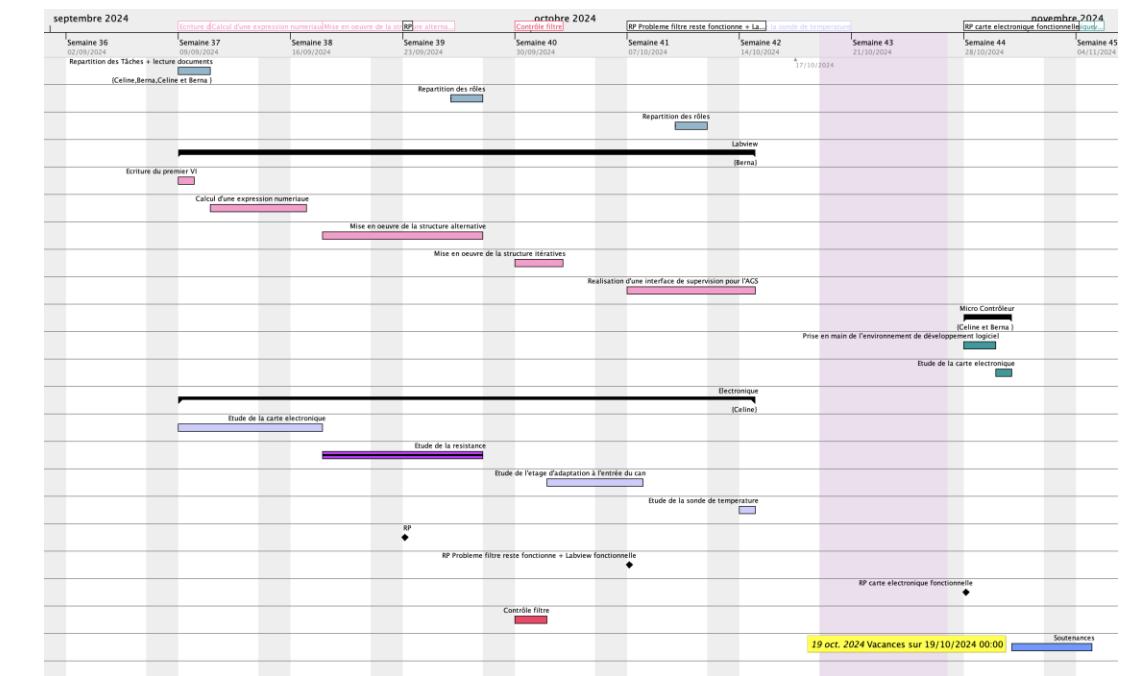
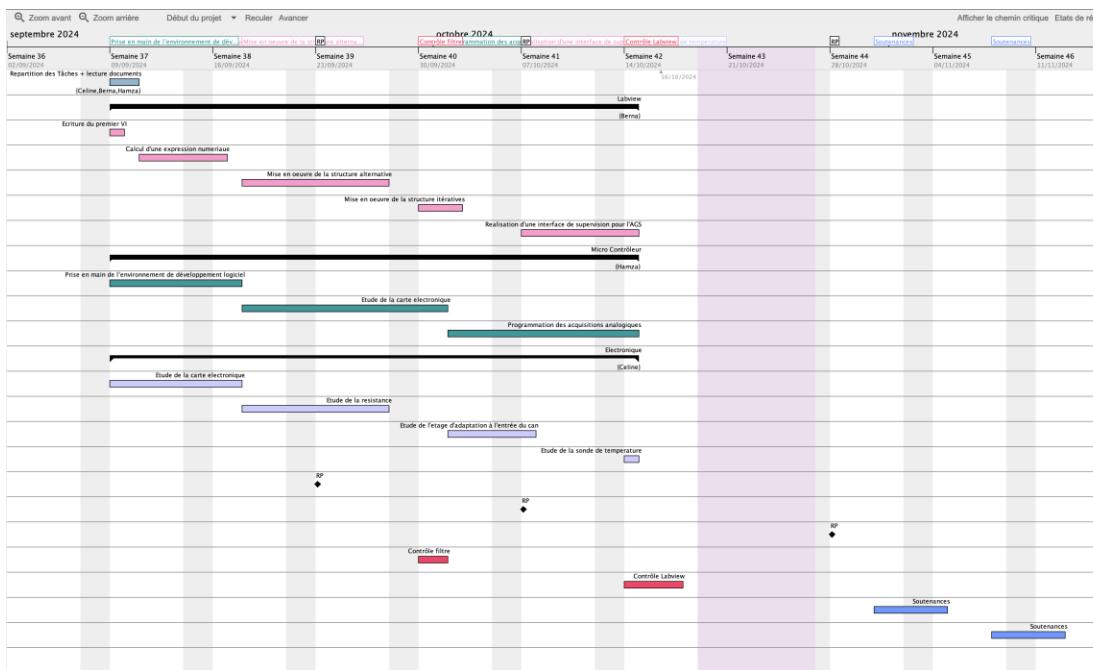
Objectifs

- Intégrer les systèmes pour créer une chaîne complète de traitement de données solaires
- Mesurer en temps réel le potentiel de production solaire d'une installation.
- Développer/appliquer des compétences en programmation et électronique

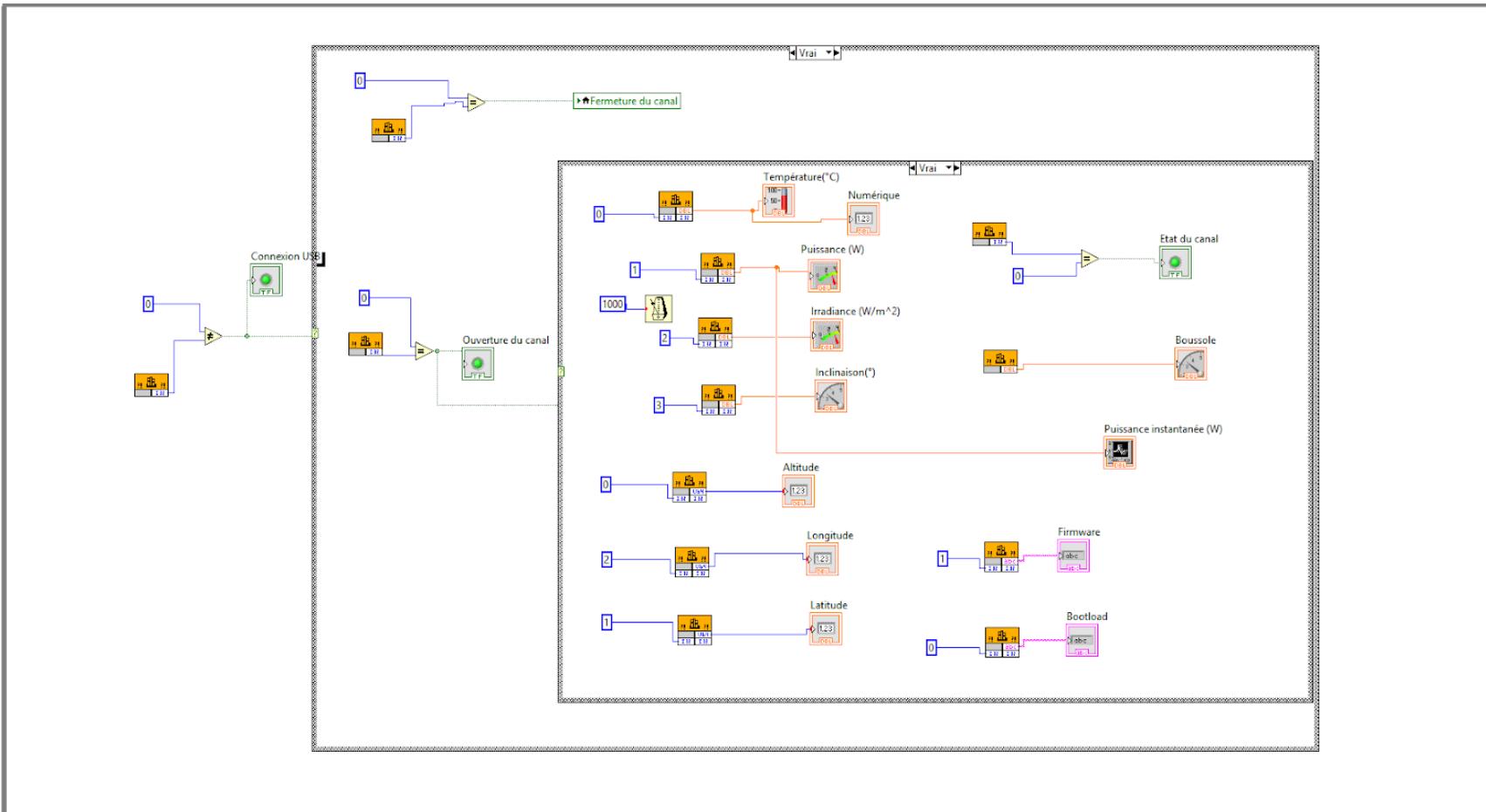
Outils/Logiciels

- Condensateur
- Résistances
- Carte électronique
- Fer à souder
- MPLABx
- LabView
- GANTT
- Platine à essai
- DB9
- LM358
- AGS
- Pickit 3

Gantt/Rôles



Partie 4 Labview



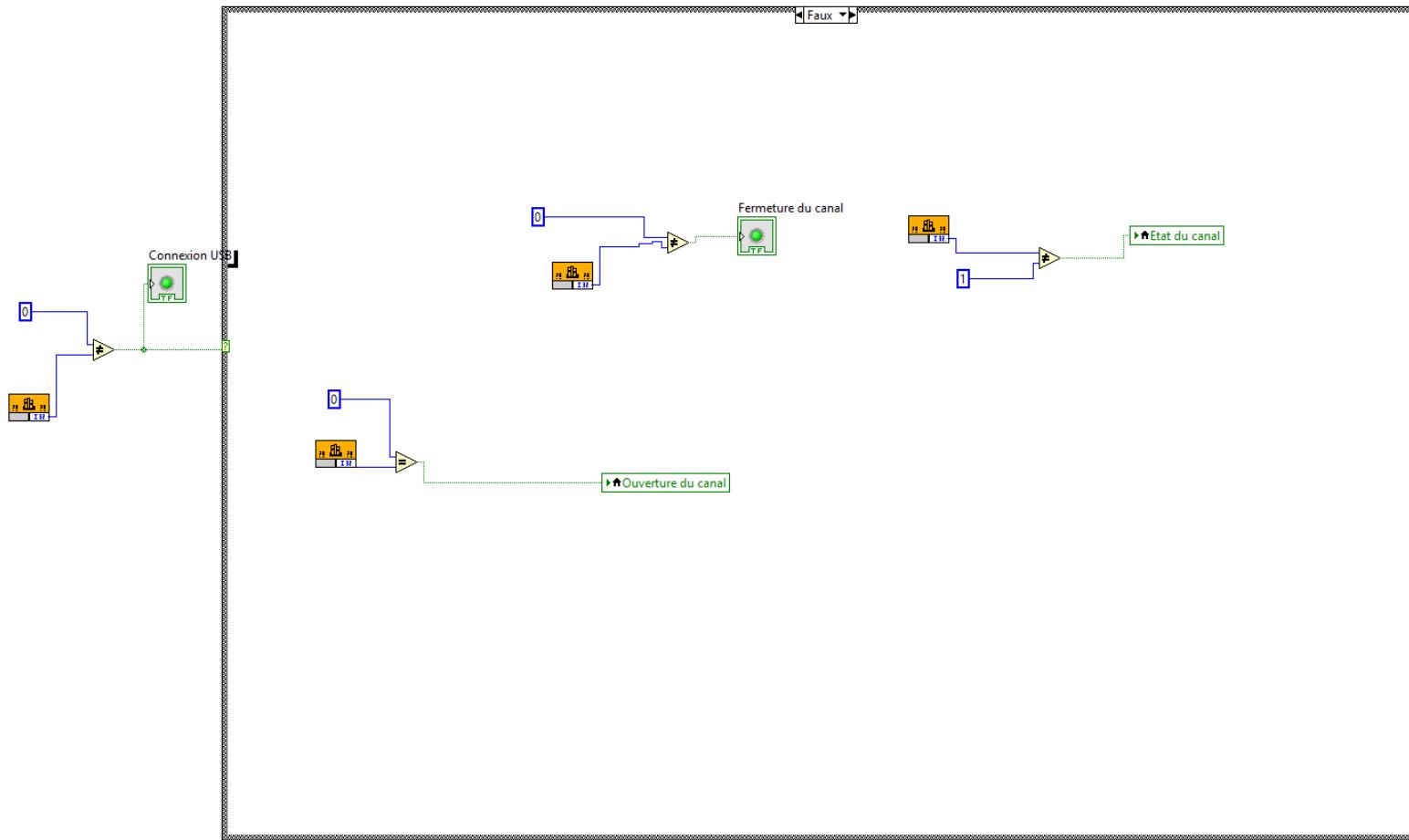
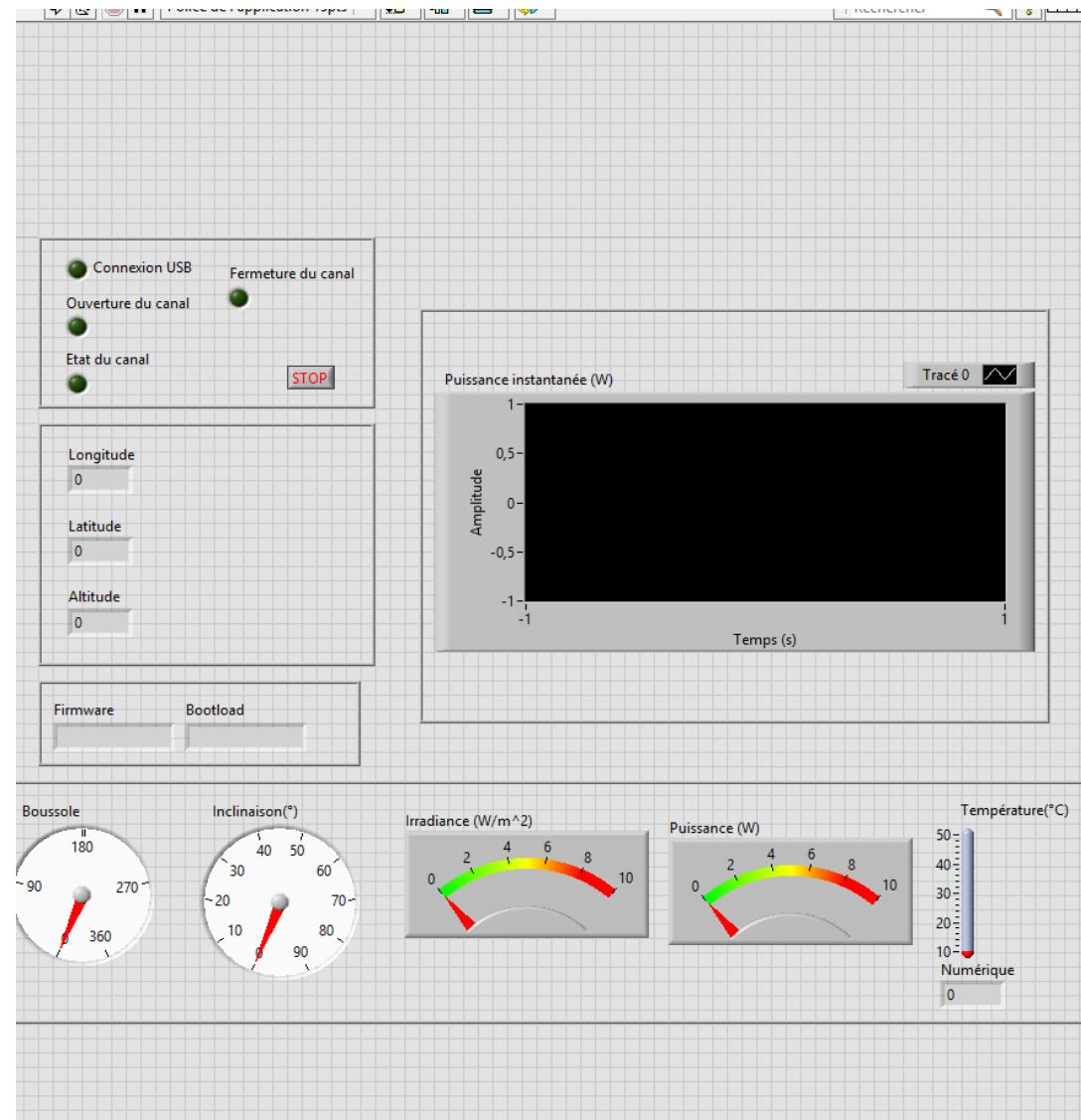
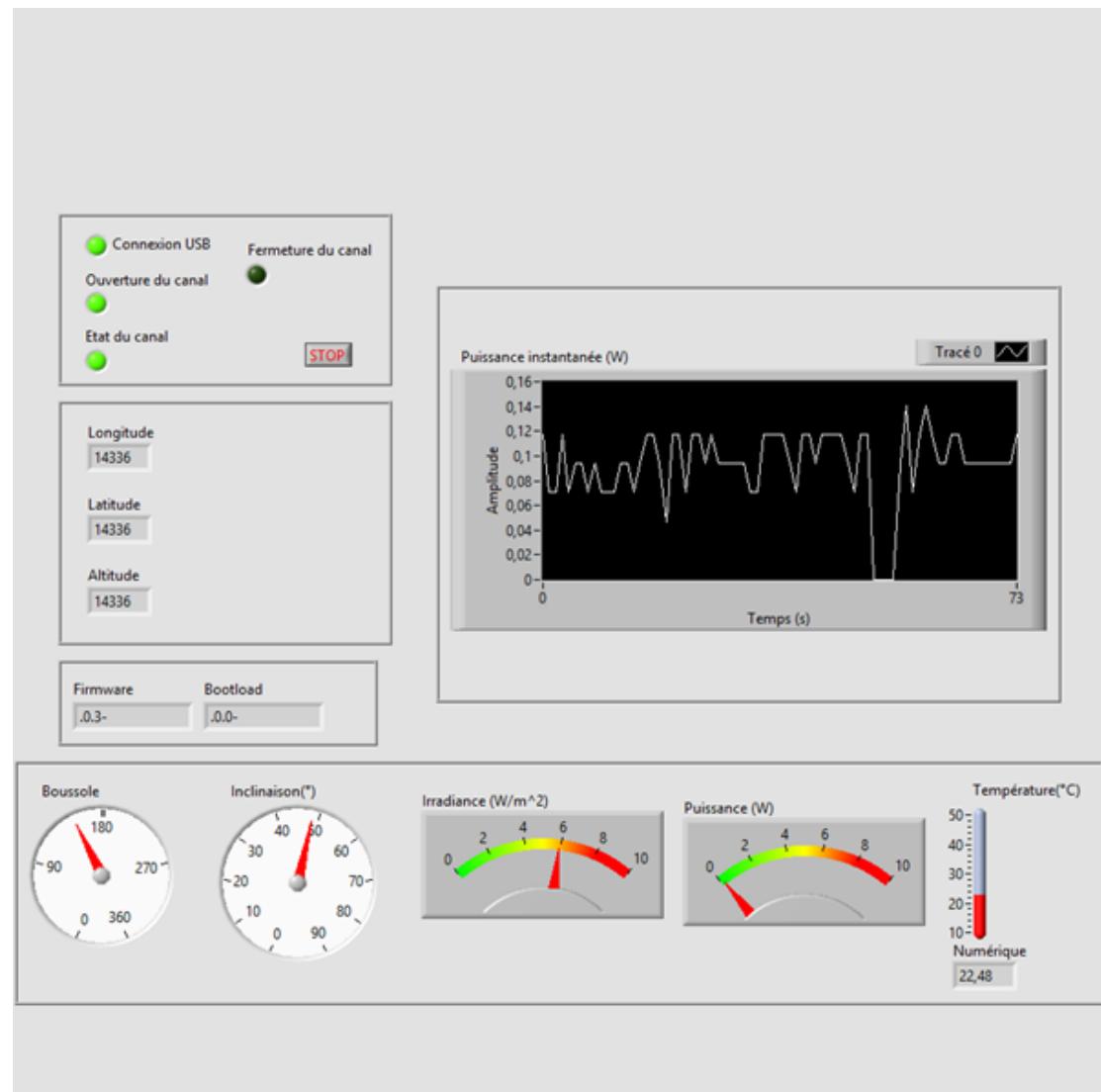


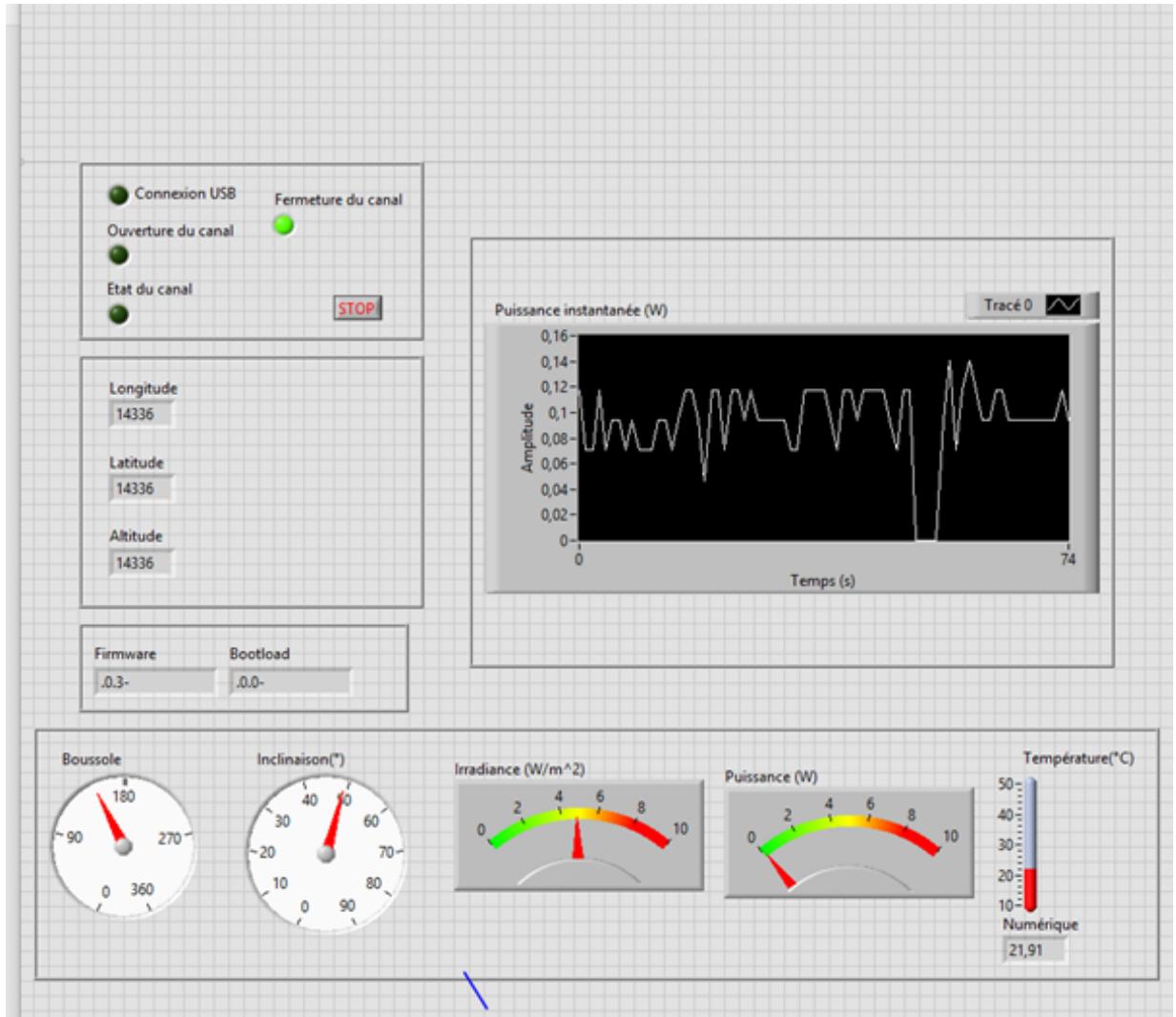
Tableau de Bord



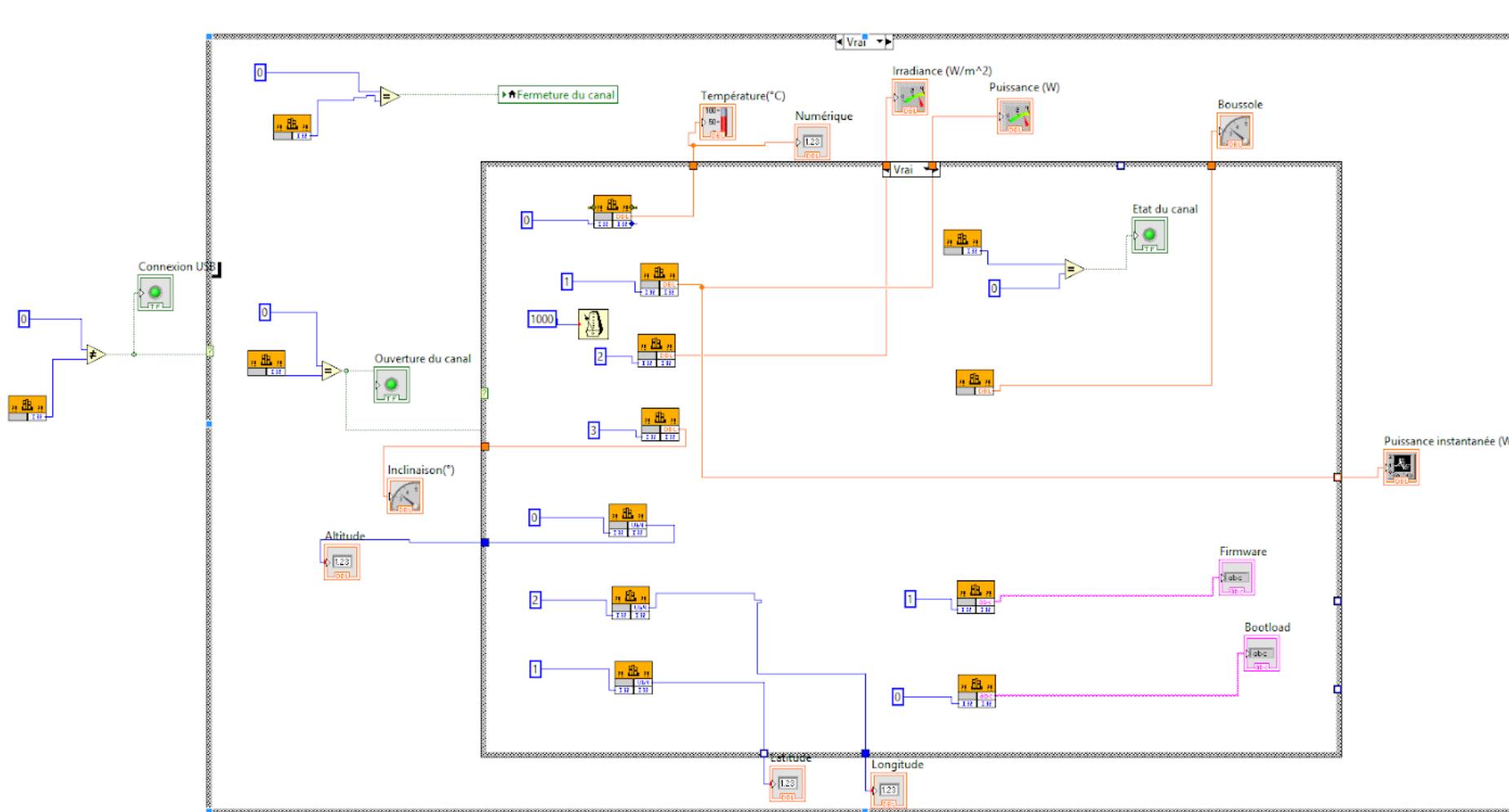
Après la connexion

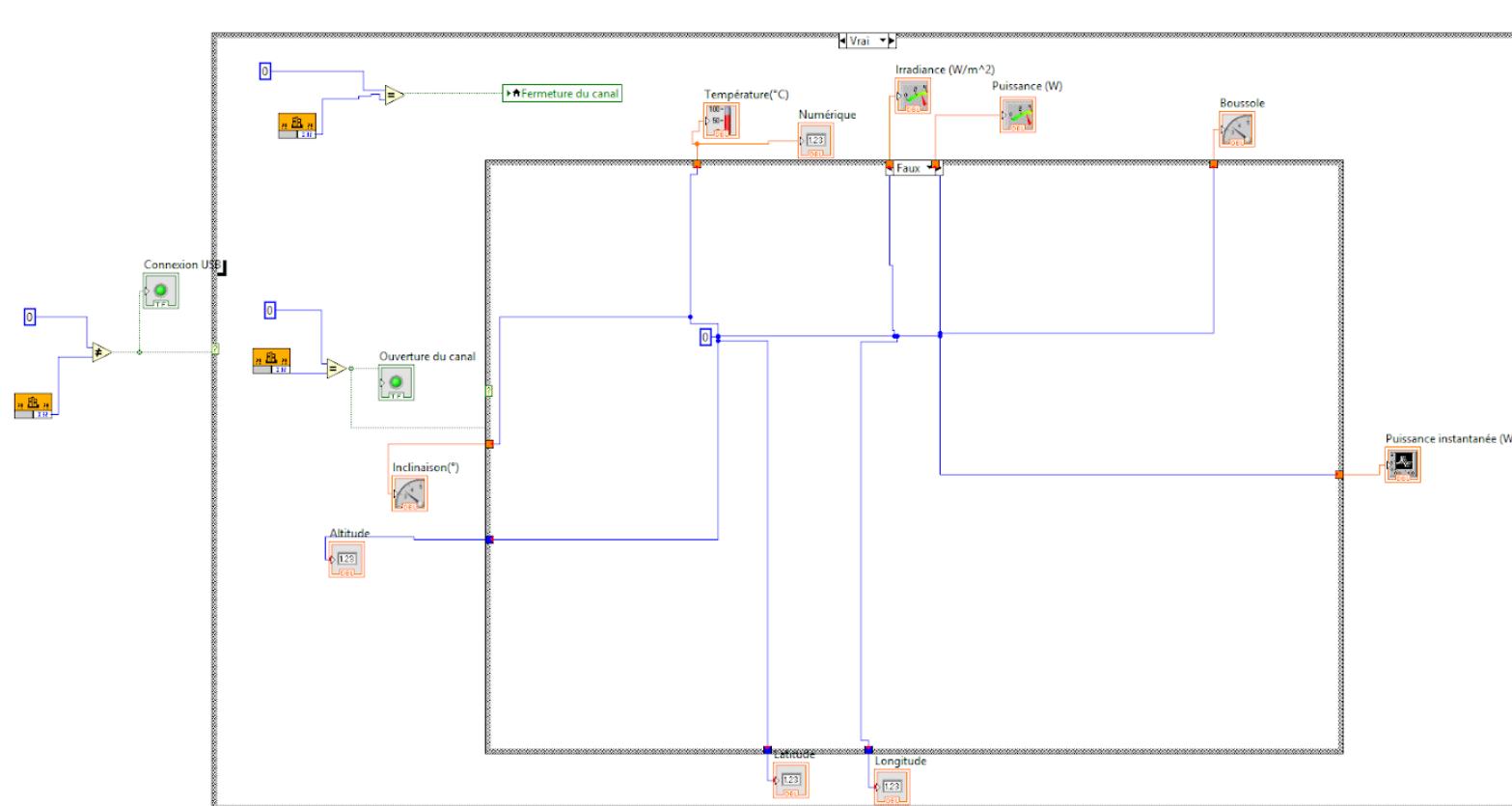


Après la déconnexion

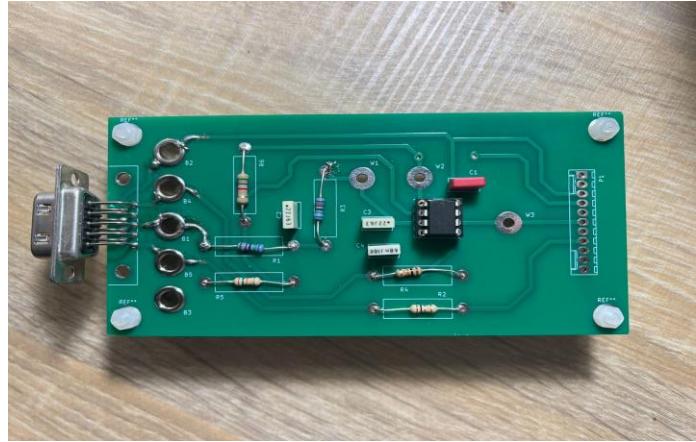
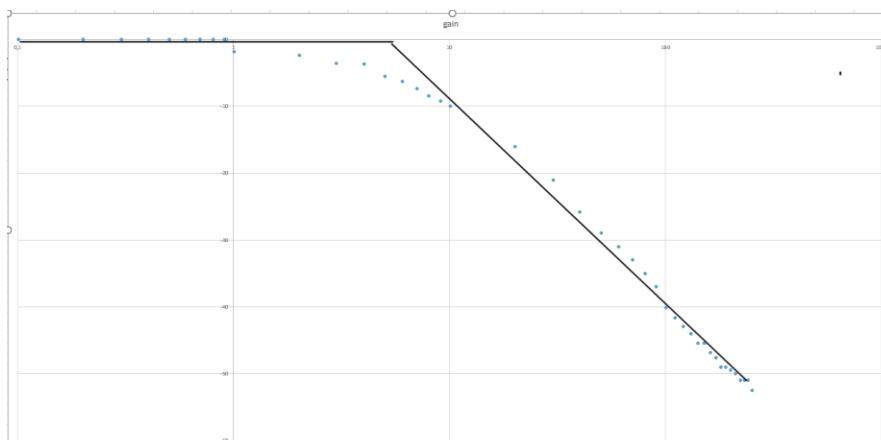
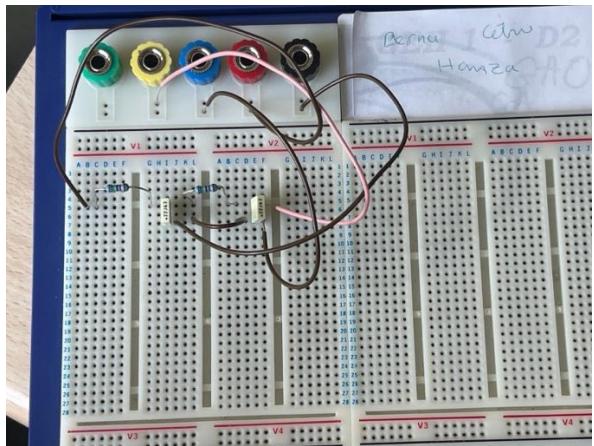


Changements





Partie 6 : Electronique



$$f_C = \frac{1}{2\pi R C}$$

$$R_{theo} = \frac{1}{2\pi * 10 * 220 * 10^{-9}}$$

$$G = 20 \log \left(\frac{1}{\sqrt{(RCW)^2 + 2.6^2}} * \frac{1}{\sqrt{(RCW)^2 + 0.38^2}} \right)$$

$$G_{10} = -9.8 \text{ dB}$$

$$G_{100} = -41 \text{ dB}$$

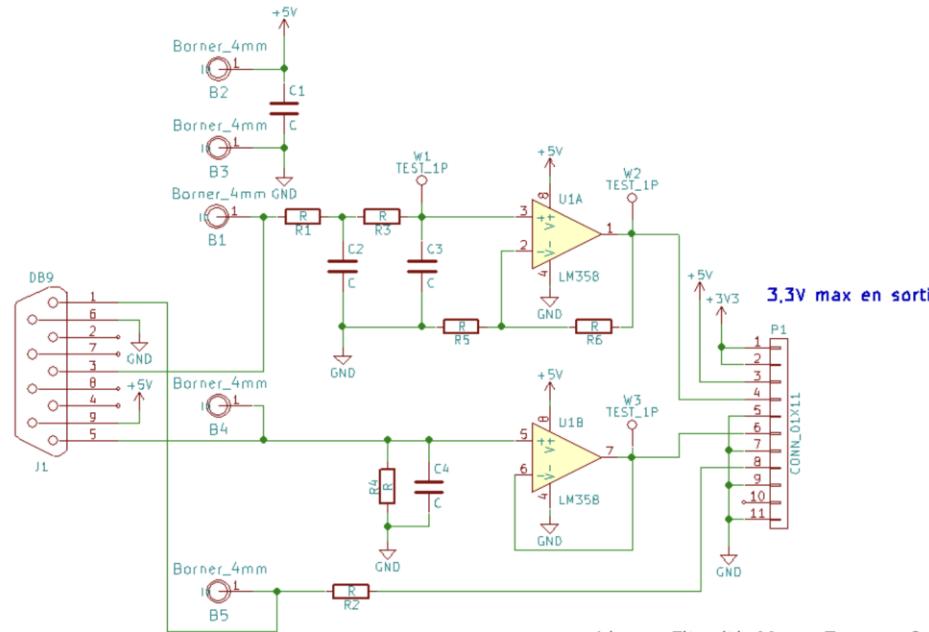
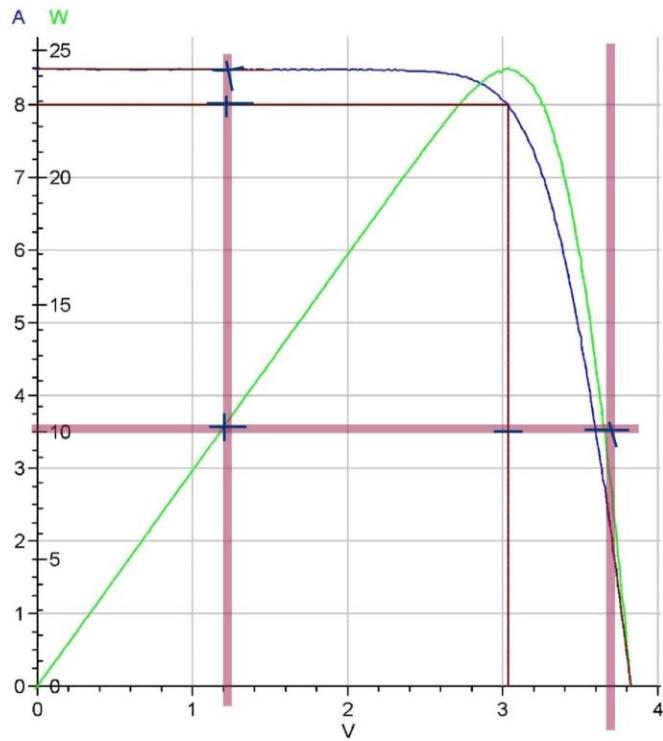
- $R_1 = R_3 = R = 75\,000 \text{ ohms}$
- $R_4 = 10\,000 \text{ ohms}$
- $R_5 = 15\,000 \text{ ohms}$
- $R_6 = 5\,600 \text{ ohms}$
- $R_2 = 1 \text{ ohms}$
- $C_1 = 10 \text{nF}$
- $C_2 = C_3 = C = 220 \text{nF}$
- $C_4 = 68 \text{nF}$

Calcul

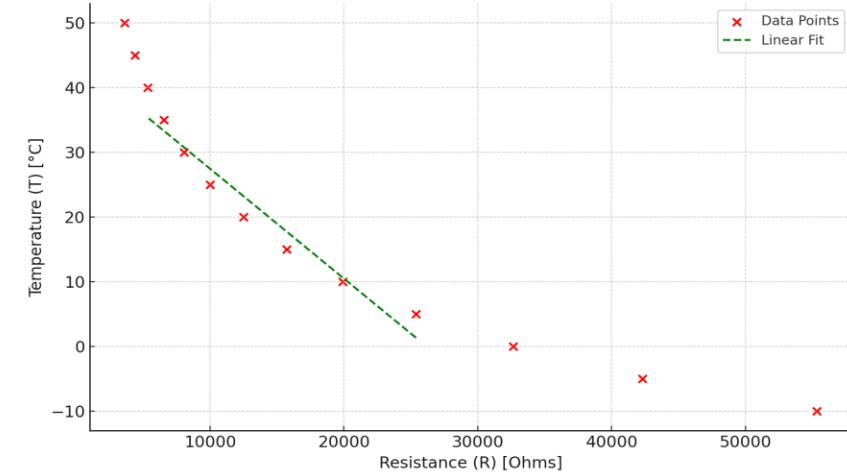
$$\frac{U_{14}R_5}{R_6+R_5} = VS$$

$$\frac{U_{14}}{VS} = \frac{1.65}{1.2} = 1.375$$

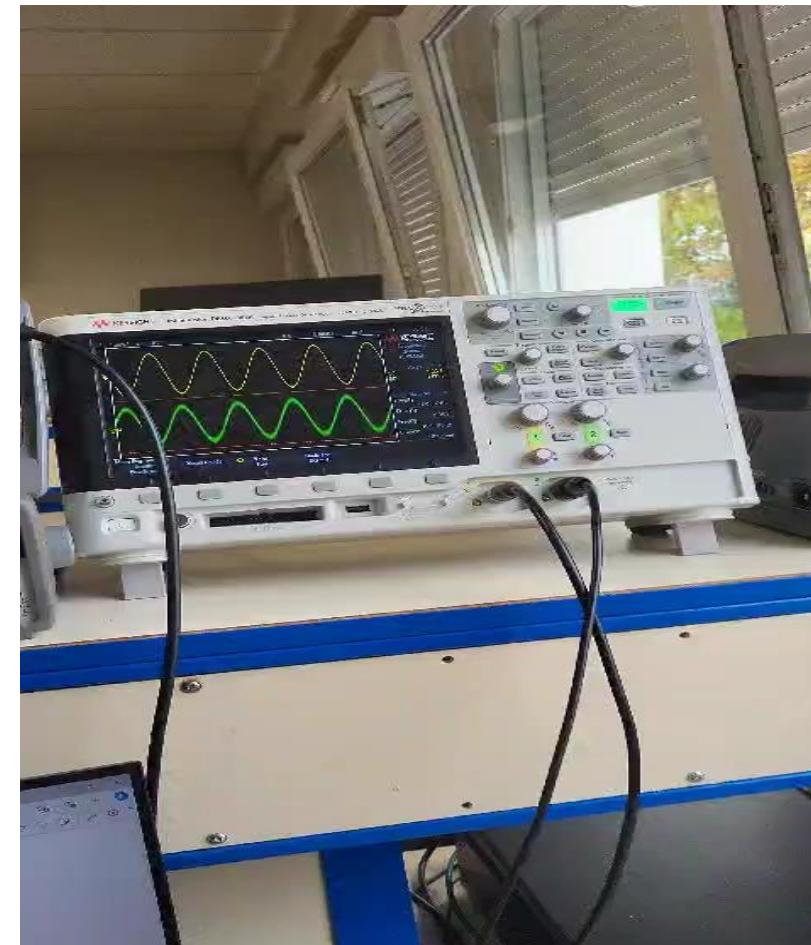
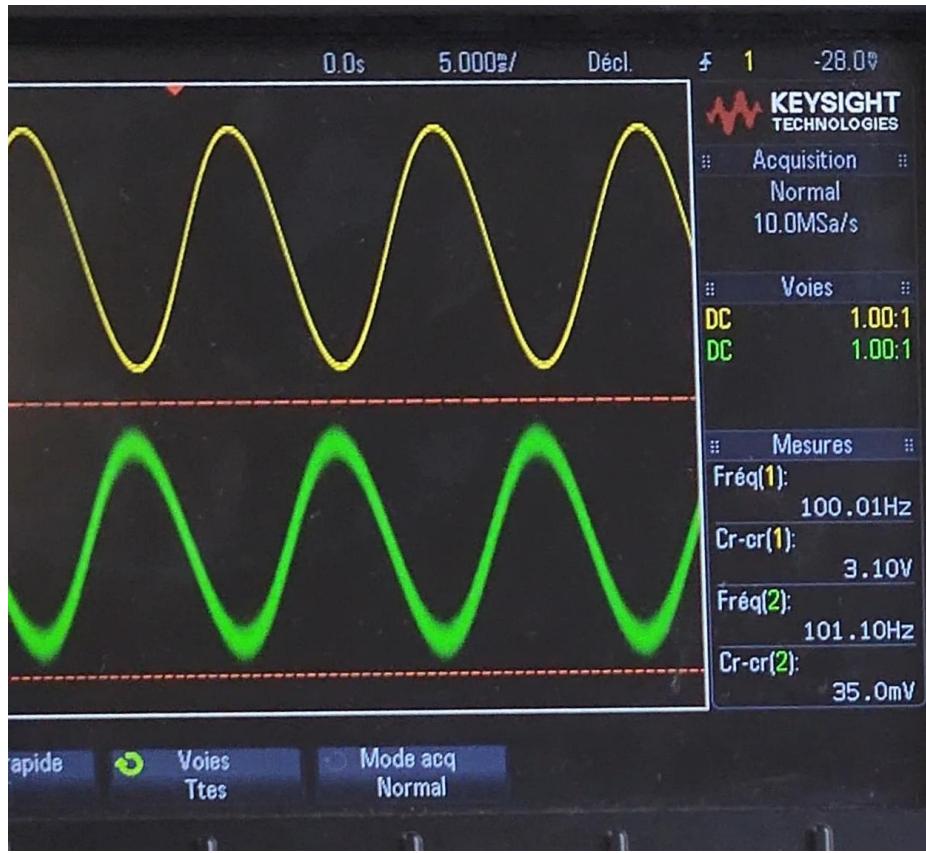
$$\frac{U_{14}}{VS} = \frac{R_5+R_6}{R_5}$$



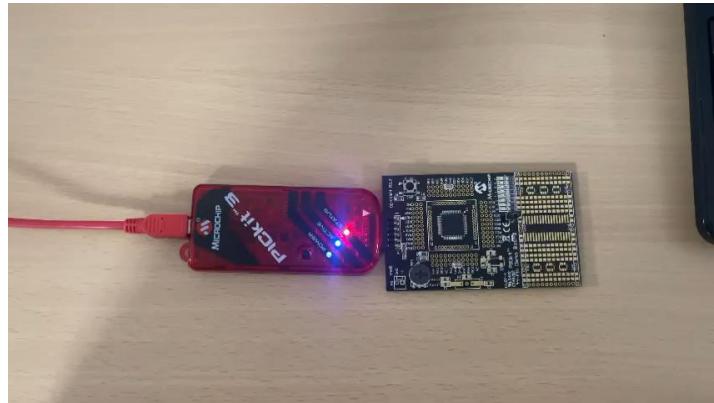
Linear Fit with Mean Error < 0.5°C
Linear Fit: $T = -0.00170R + 44.44$



Video test



Partie 5 led 2



```
#include <pl18f45k20.h> // Include header for the PIC18F45K20 microcontroller
#include "user.h" // Include the header file with function declarations

// Function to initialize the LED pin
void UserInit(void)
{
    TRISDbits.TRISD2 = 0; // Set RB2 as output for the LED
    LATDbits.LATD2 = 0; // Start with the LED off
}

// Function to toggle the LED with a delay
void UserProcess(void)
{
    LATDbits.LATD2 = 1; // Turn the LED on
    for (unsigned long i = 0; i < 50000; i++); // Simple delay
    LATDbits.LATD2 = 0; // Turn the LED off
    for (unsigned long i = 0; i < 50000; i++); // Simple delay
}

#ifndef USER_H
#define USER_H

// Function Prototypes
void UserInit(void); // Initializes the LED pin
void UserProcess(void); // Controls the LED blinking

#endif // USER_H
```

```
#include <pl18f45k20.h> // Include header for the PIC18F45K20 microcontroller
#include "user.h" // Include user-defined functions

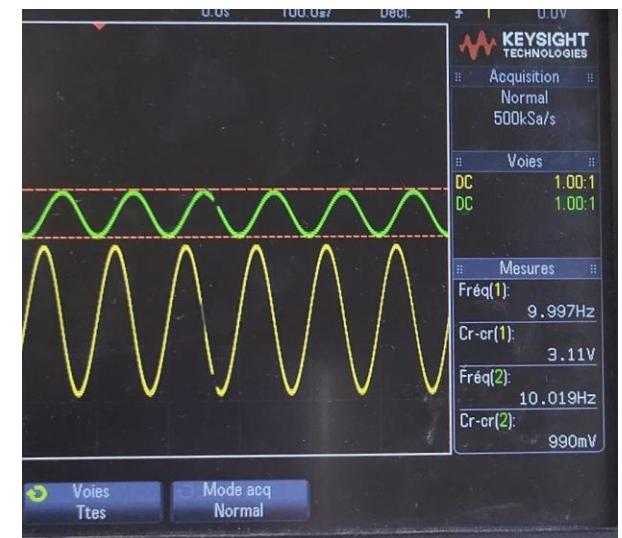
#pragma config FOSC = INTIO67 // Use internal oscillator
#pragma config WDTEN = OFF // Disable Watchdog Timer
#pragma config LVP = OFF // Disable Low-Voltage Programming

// Main function
void main(void)
{
    UserInit(); // Call initialization function

    // Infinite for loop for continuous blinking
    for (;;)
    {
        UserProcess(); // Call the function to blink the LED
    }
}
```

Problèmes

- Gabarit 75000 ohms et 220 nF manque de composants
- Problème filtre
- Televerser programme pickit 3



Solutions

- Travailler en même temps sur le compte rendu et le projet
- Prendre note ou on s'est arrêté la fois précédente
- Organiser les documents
- Maitrise de l'élément à étudier
- Lecture de datasheet
- Changer de carte
- Demander de l'aide
- Modifier la tension 3.375V Pickit 3



Conclusion

- Programmer avec MPLAB /LabView
- Souder
- Analyse et Détection de Problèmes
- Résolution de Problèmes

Référence

- PROJET AGS V1-3.pdf
- Schema AGS carte analogique_2016.png
- EtudeAcquisitionTensionPV.docx
- Resistance de puissance RH25.pdf
- prise en main et TP1.doc
- API_USB_AGS.pdf