SPARC

Code Review

SPARC_4585.c Revision 2

```
        while (BuscandoHomeX == 0) {
            MOV_L_PASOS_X(300, 0); //Puts X in the origin
        }
        while (BuscandoHomeY == 0) {
            MOV_L_PASOS_Y(300, 0); //Puts Y in the origin
        }
    }

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    while (AjusteZ == 0) {
        UP_PLATFORM(); //Move platform up
        DOWN_PLATFORM(); //Move platform down
        if (PORTAbits.RA5 == 1) { //If button ok is pressed
            AjusteZ = 1; //The adjust is ready
        }
    }

    while (1) {
        while (TaskReceive == 0) { //Meanwhile Task is not rece

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            Task = RECEIVE_UART(); //The task is receive and sa

            if (Task != 72 && Task != 71 && Task != 84 && Task
                ERROR_NO_COMANDO(); //The command is wrong
```

SPARC_4585.c : Working Copy

```
        while (BuscandoHomeX == 0) {
            MOV_L_PASOS_X(300, 0); //Puts X in the origin
        }
        while (BuscandoHomeY == 0) {
            MOV_L_PASOS_Y(300, 0); //Puts Y in the origin
        }
    }

    INTCONbits.GIE = 0; //Disable interruptions

    while (AjusteZ == 0) {
        UP_PLATFORM(); //Move platform up
        DOWN_PLATFORM(); //Move platform down
        if (PORTAbits.RA5 == 1) { //If button ok is pressed
            AjusteZ = 1; //The adjust is ready
        }
    }

    while (1) {
        while (TaskReceive == 0) { //Meanwhile Task is not rece
            PORTEbits.RE0 = 0; //Actuator deactivation
            Task = RECEIVE_UART(); //The task is receive and sa

            if (Task != 72 && Task != 71 && Task != 84 && Task
                ERROR_NO_COMANDO(); //The command is wrong
```

1. Se tuvieron que apagar las interrupciones después de la inicialización y acomodo de la plataforma, ya que hubo un problema de electrónica el cual provocaba la activación de las interrupciones por culpa del actuador.
2. También se agregó una desactivación del actuador por que una vez que terminaba de hacer un sweep este se quedaba activado provocando que se calentara.

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```
                    TERMINADO(); //Process is done
                    TaskReceive = 0; //A new task is needed
                    XReceive = 1; //X was received
                    YReceive = 1; //Y was received
                }
            }
            NoNull = 0;

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            RCREG = 0;//Clean of receive register
        }
    }
}

void __interrupt() INT_isr(void) {
    if (INTCONbits.INT0IF == 1) {
        MOV_L_PASOS_X(PosicionX, 0); //Move X to the left
        MOV_L_PASOS_Y(PosicionY, 0); //Move Y to the left
        INTCONbits.INT0IF = 0; //Clear Interruption Flag 0
        INTCON3bits.INT1IF = 0; //Clear Interruption Flag 1
        INTCON3bits.INT2IF = 0; //Clear Interruption Flag 1
    }
    if (INTCON3bits.INT1IF == 1) {

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        MOV_R_PASOS_X(0, 10); //Adjust X
        BuscandoHomeX = 1; //HomeX was found
        INTCONbits.INT0IF = 0; //Clear Interruption Flag 0
        INTCON3bits.INT1IF = 0; //Clear Interruption Flag 1
```

SPARC_4585.c : Working Copy

```
                    TERMINADO(); //Process is done
                    TaskReceive = 0; //A new task is needed
                    XReceive = 1; //X was received
                    YReceive = 1; //Y was received
                }
            }
            NoNull = 0;
            RCREG = 0; //Clean of receive register
        }
    }
}

void __interrupt() INT_isr(void) {
    if (INTCONbits.INT0IF == 1) {
        MOV_L_PASOS_X(PosicionX, 0); //Move X to the left
        MOV_L_PASOS_Y(PosicionY, 0); //Move Y to the left
        INTCONbits.INT0IF = 0; //Clear Interruption Flag 0
        INTCON3bits.INT1IF = 0; //Clear Interruption Flag 1
        INTCON3bits.INT2IF = 0; //Clear Interruption Flag 1
    }
    if (INTCON3bits.INT1IF == 1) {
        MOV_R_PASOS_X(0, 20); //Adjust X
        BuscandoHomeX = 1; //HomeX was found
        INTCONbits.INT0IF = 0; //Clear Interruption Flag 0
        INTCON3bits.INT1IF = 0; //Clear Interruption Flag 1
```

3. Se limpia el registro de datos que se reciben para evitar que se quede basura una vez que termina el proceso.
4. Se aumento la distancia de reacomodo del SPARC para que quede dentro del espacio de trabajo.

Se agradece a los compañeros que ayudaron en la evaluación del código.