Sistema de Seguridad para un Laboratorio

Víctor Manuel Asanza Armijos

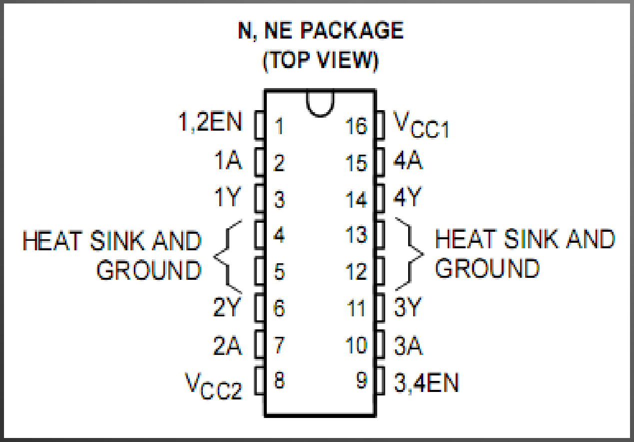
Guillermo Xavier Calvopiña Martínez

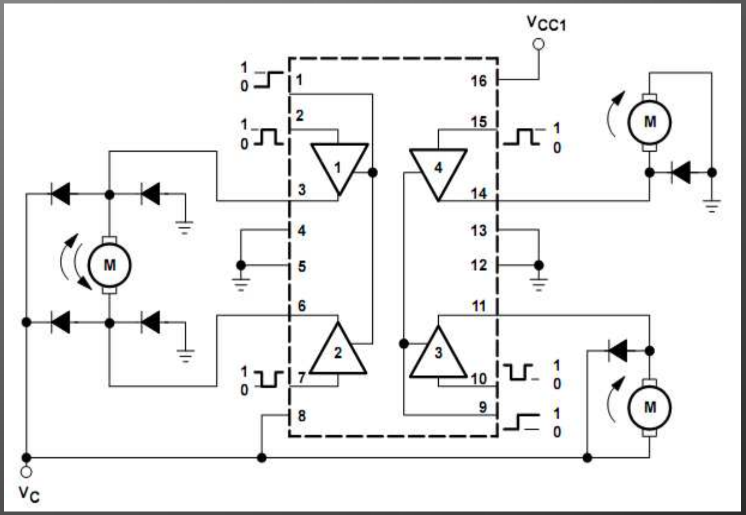
OBJETIVOS Y ALCANCE DEL PROYECTO

- 1.- ***Validación y control de acceso del personal del laboratorio.***
- 2.- ***Sensado y control de temperatura.***
- ***3.- Control de luces.***
- ***4.- . Acceso remoto a la cámara de monitoreo.***
- ***5.- Visualización ante posibles detecciones.***

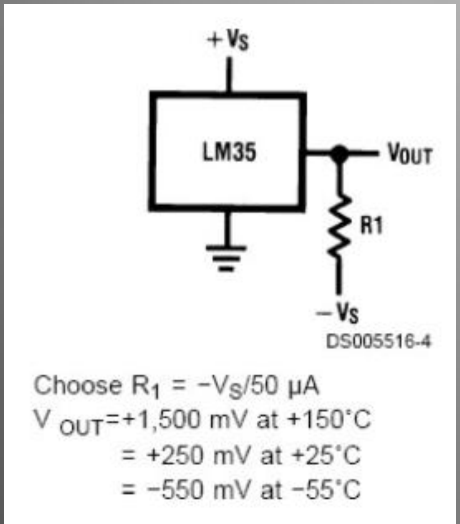
Base teórica de lo que se va a utilizar

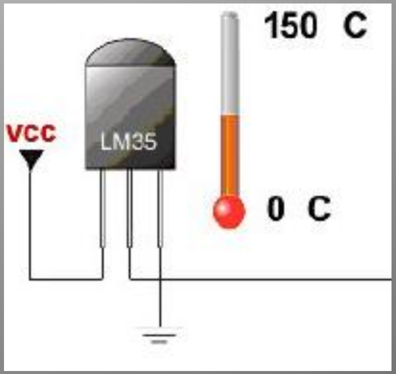
- **MOTO DRIVER - L293**





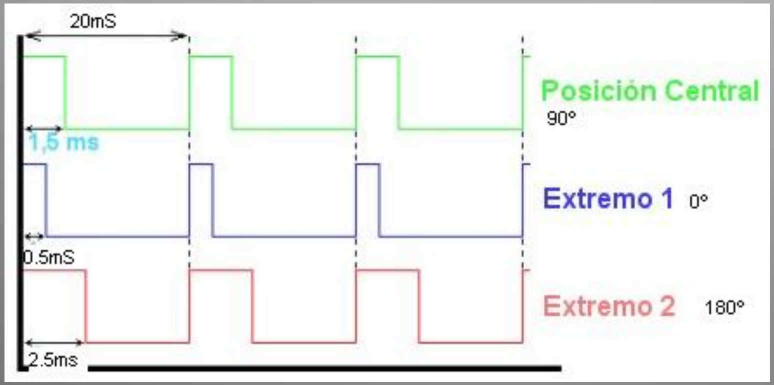
- **LM35**



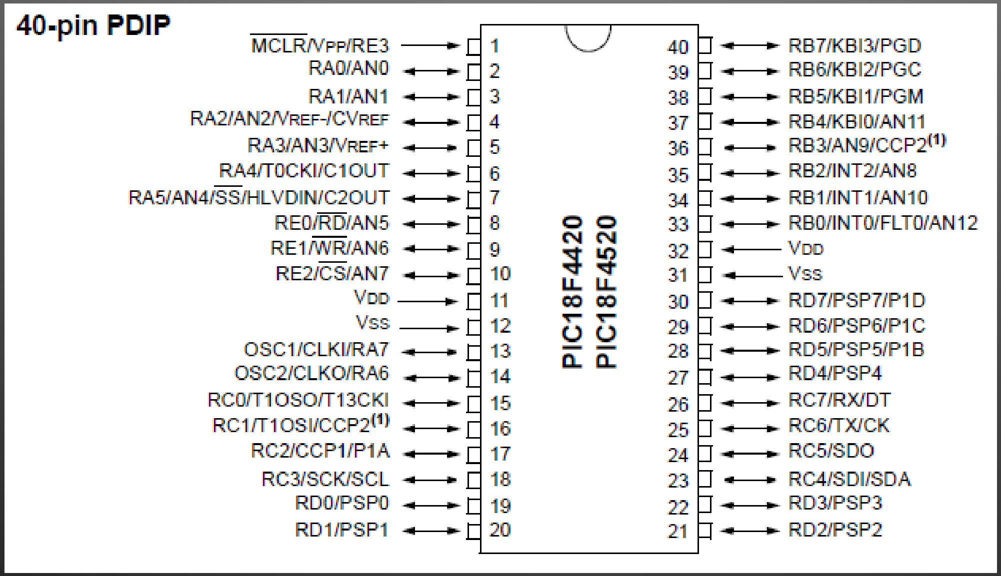


- **SERVOMOTOR**

- Control PWM

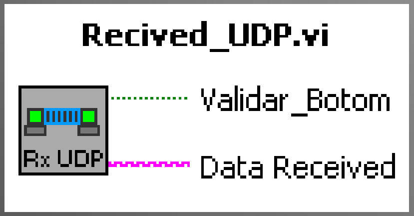


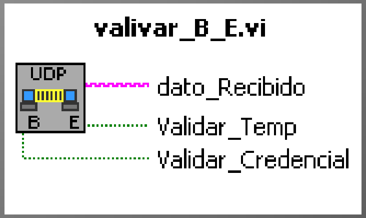
- **PIC18F4520**

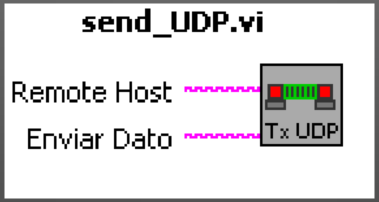


VI o función especifica que utiliza

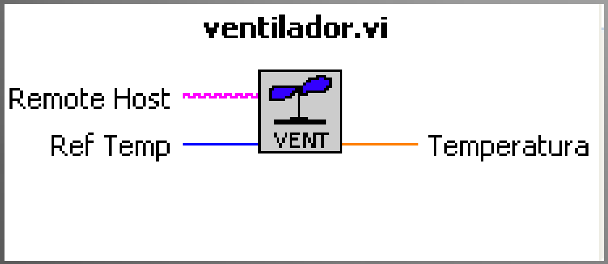
- **TCP / IP**

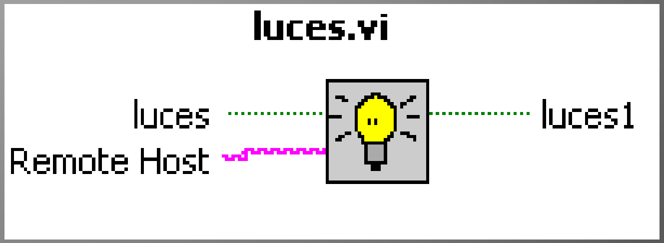


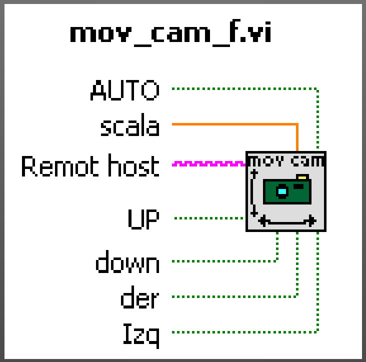




- **Controladores**







• Credencial

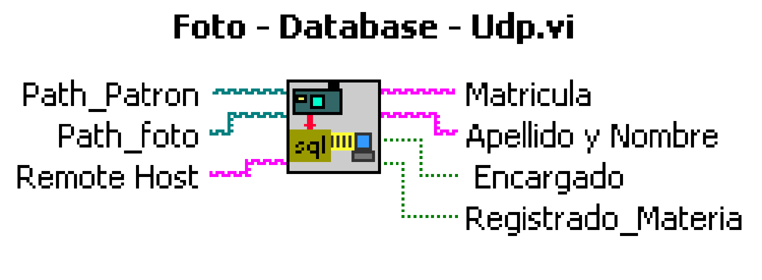
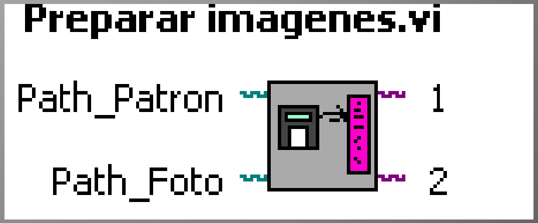
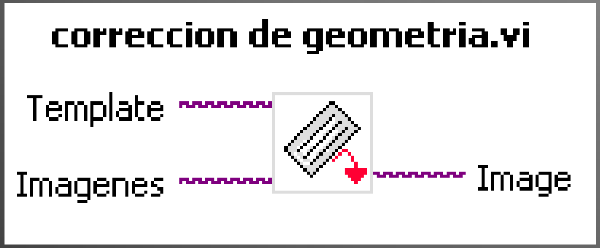
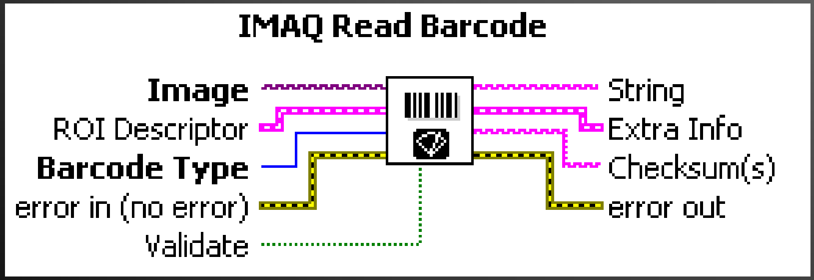


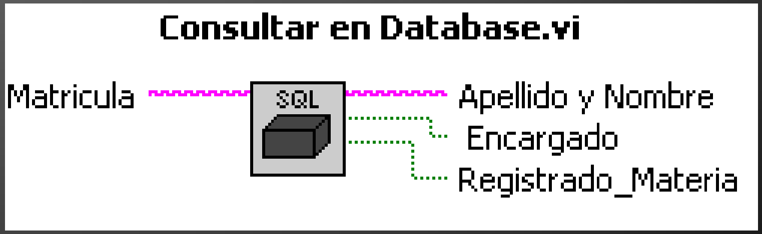
Foto - Database - Udp.vi
Path_Patron
Path_foto
Remote Host
Matricula
Apellido y Nombre
Encargado
Registrado_Materia


Preparar imagenes.vi
Path_Patron
Path_Foto
1
2


correccion de geometria.vi
Template
Imagenes
Image

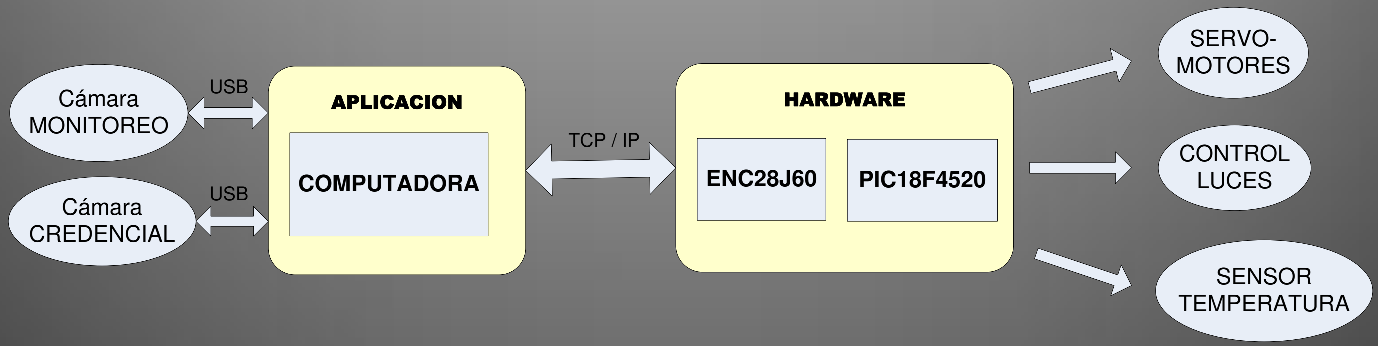

Localizacion_de _codigoBarra.vi
Template
Image Src
Image


IMAQ Read Barcode
Image
ROI Descriptor
Barcode Type
error in (no error)
Validate
String
Extra Info
Checksum(s)
error out


Consultar en Database.vi
Matricula
SQL
Apellido y Nombre
Encargado
Registrado_Materia

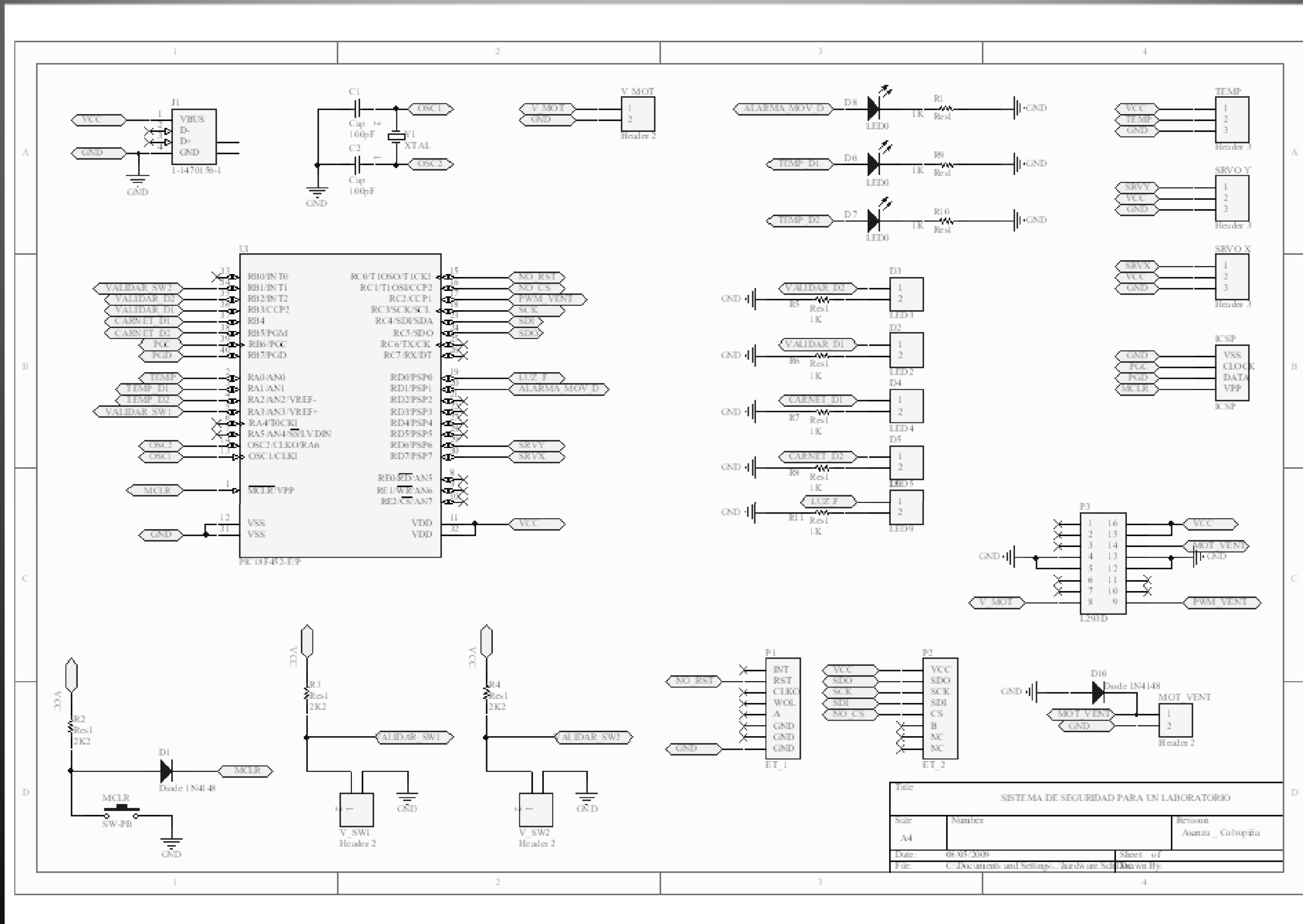
DISEÑO DE LA SOLUCIÓN

- ***Diseño general***

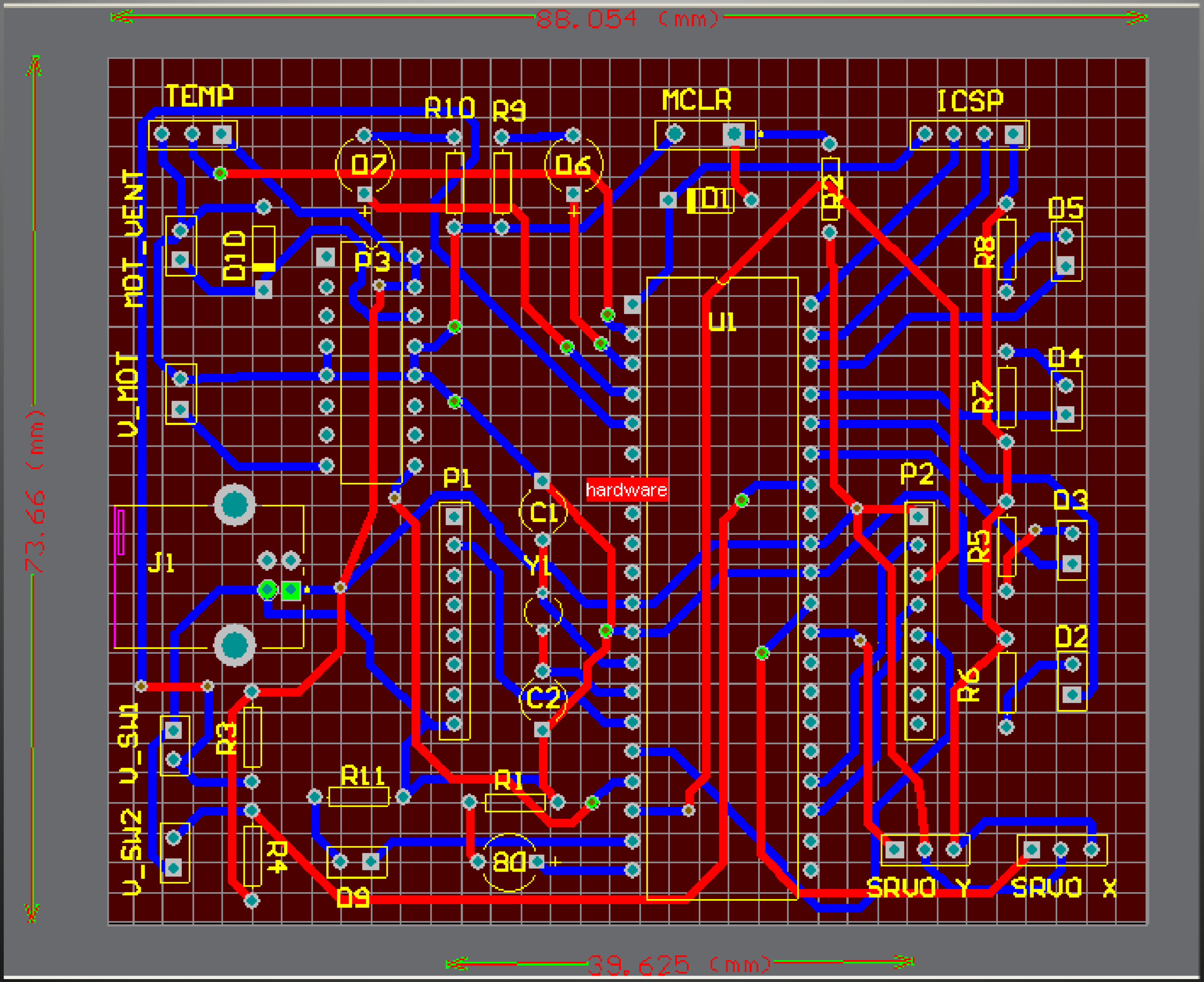


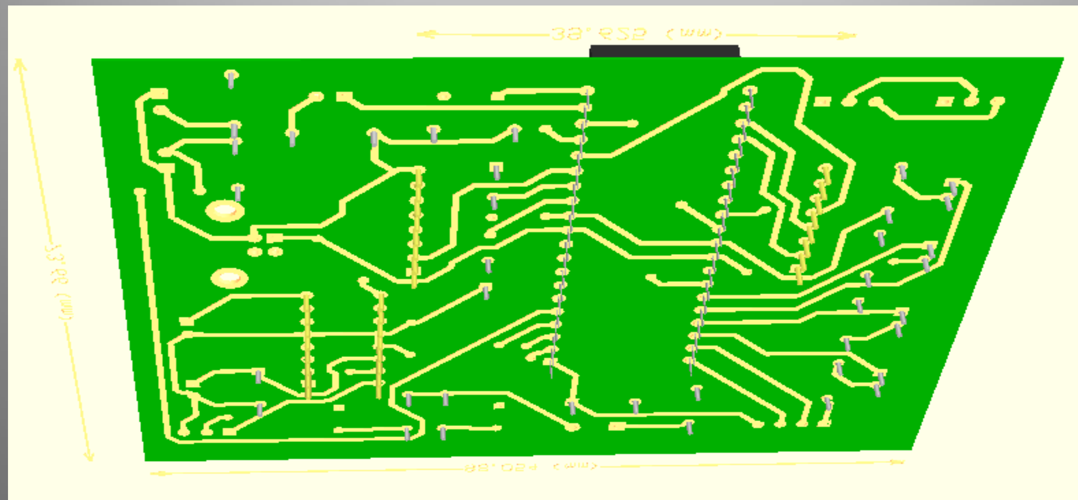
- ***Protocolo de transmisión de datos***
- “VAV” -> encargado
- “VAE” -> estudiante
- “E”+”ADC”-> temp
- “BE”+ “velocidad ventilador” -> cero
- “BF”+”velocidad ventilador” -> =/ cero
- “L1” -> Luces ON, “L0” -> Luces OFF
- “MO”+”X_grad”+”Y_grad” -> servomotores

IMPLEMENTACION DEL HARDWARE

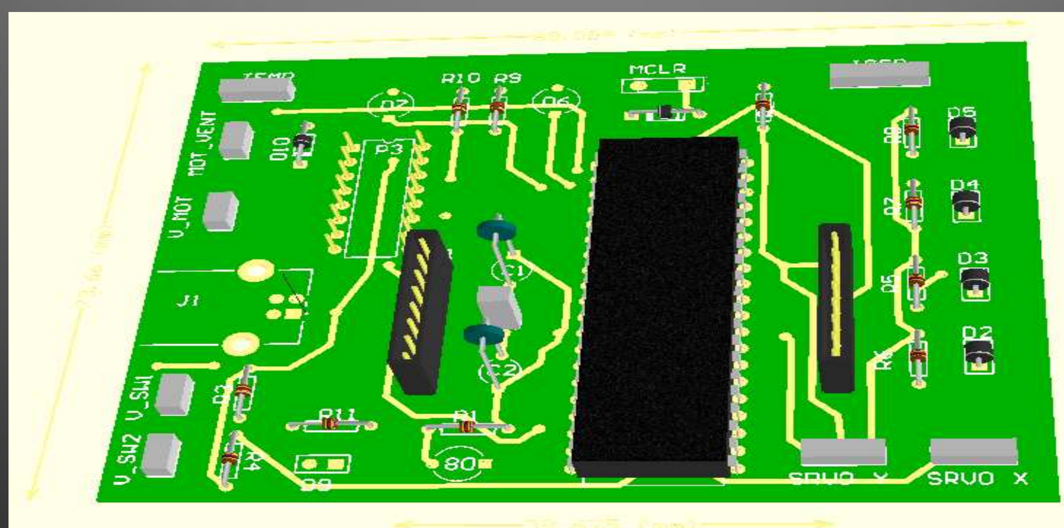


Ruteo de ALTIUM de las pistas en la tarje.





- Imagen 3D de la cara inferior de la tarjeta.



- Imagen 3D de la cara superior de la tarjeta.

Conclusiones

Recomendaciones