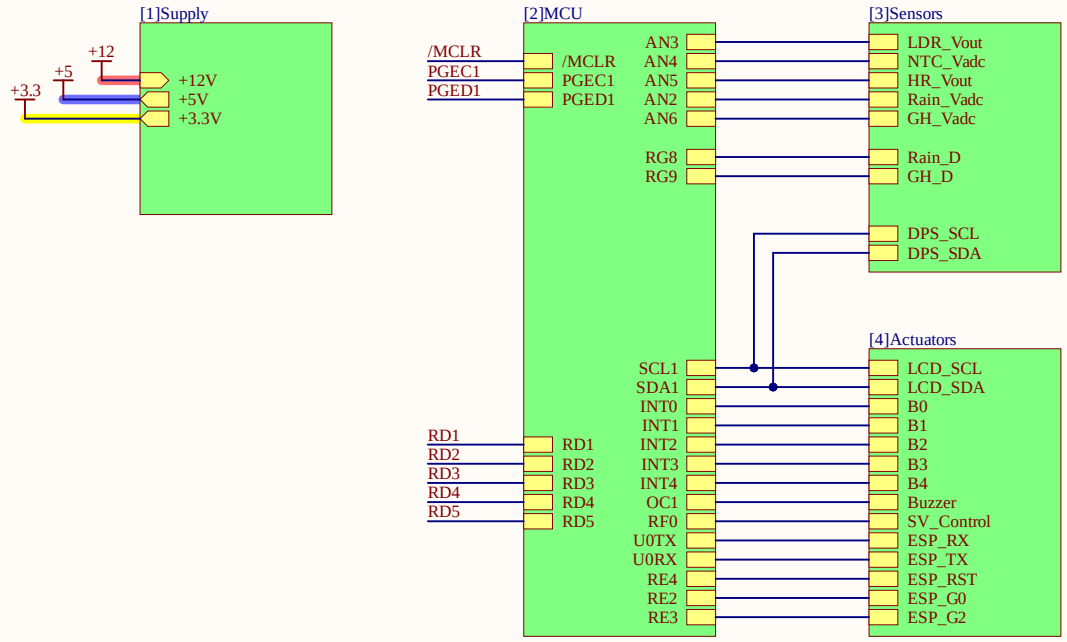
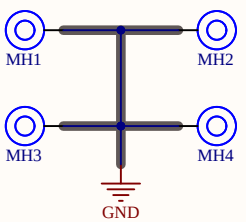
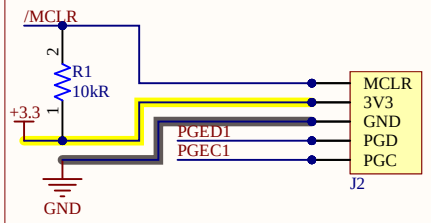
Smart Garden PCB



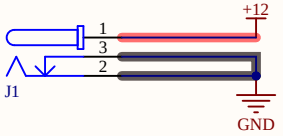
Mounting Holes



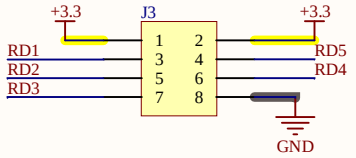
PICKIT4 connector



Supply Connector

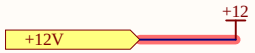


Expansion Connector

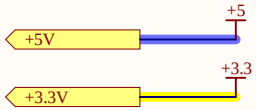


Supply

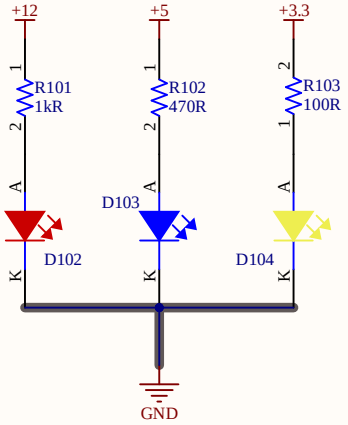
Inputs



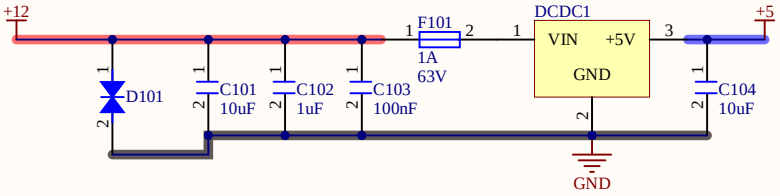
Outputs



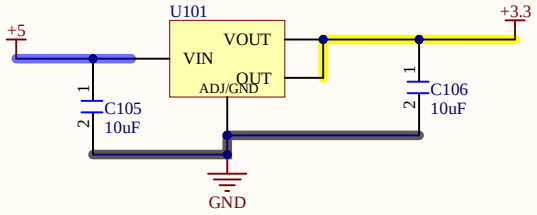
Power LEDs



5V supply

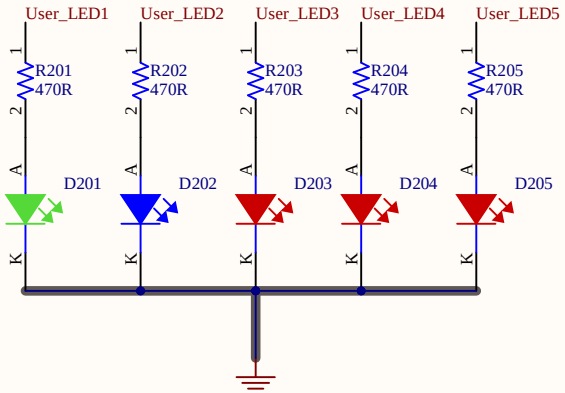


3.3V supply

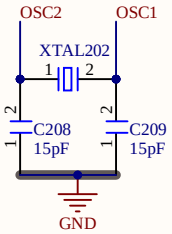


PIC Microcontroller

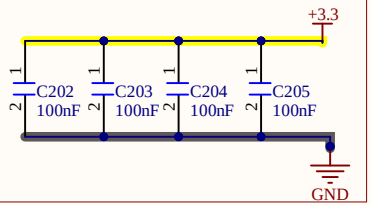
User LEDs



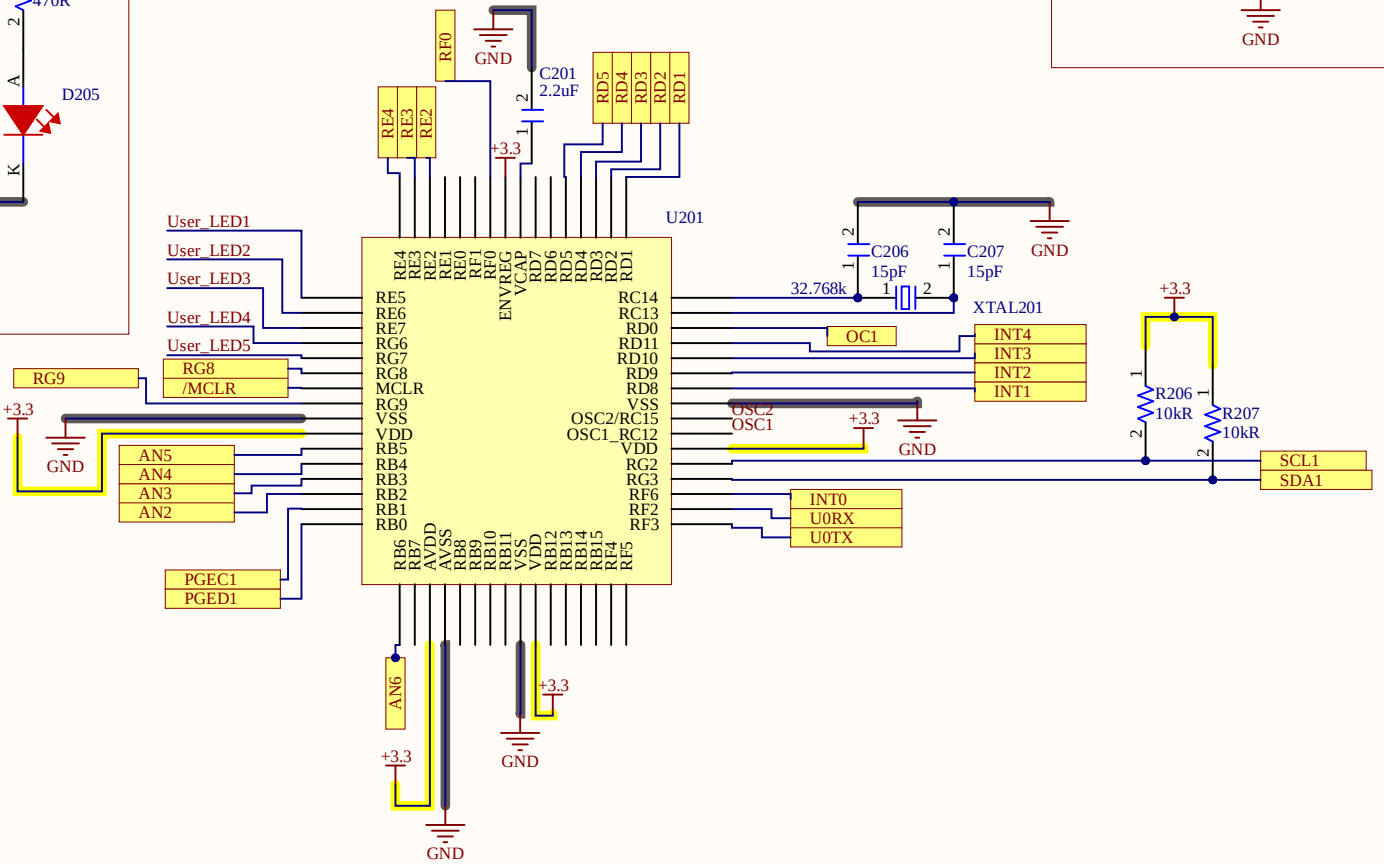
20MHz XTAL



Decoupling capacitors

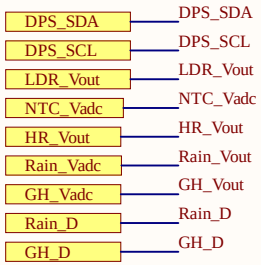


Place near each VDD and VSS pins

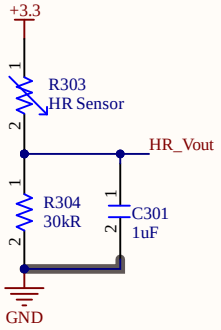


Sensors

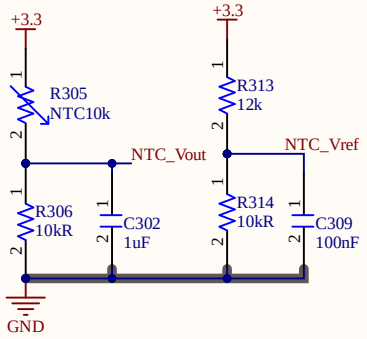
Inputs & Outputs



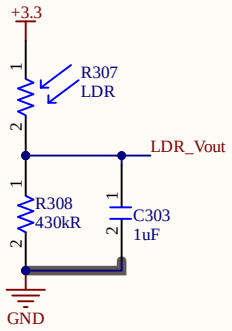
HR sensor



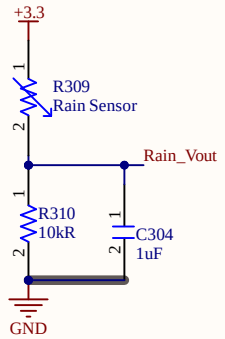
NTC sensor



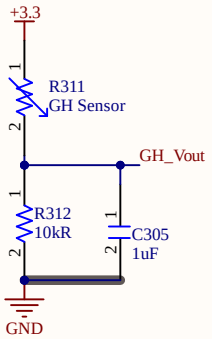
LDR sensor



Rain sensor

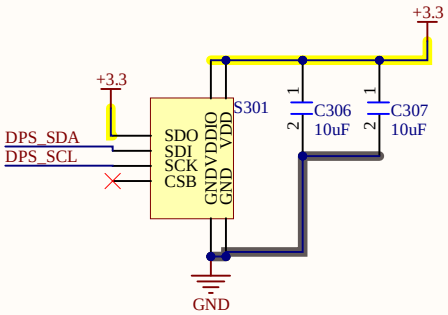


GH sensor

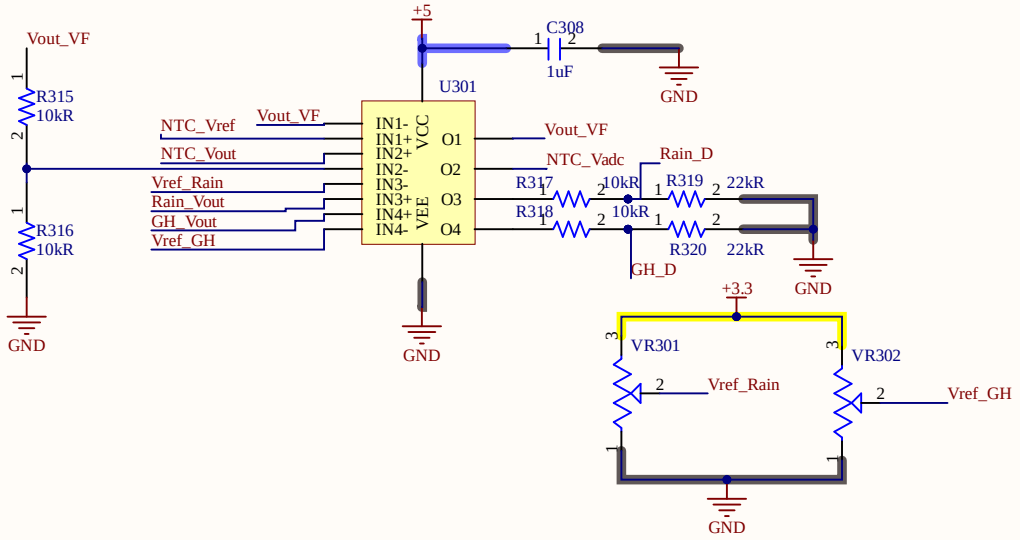


Atm Pressure (DPS310)

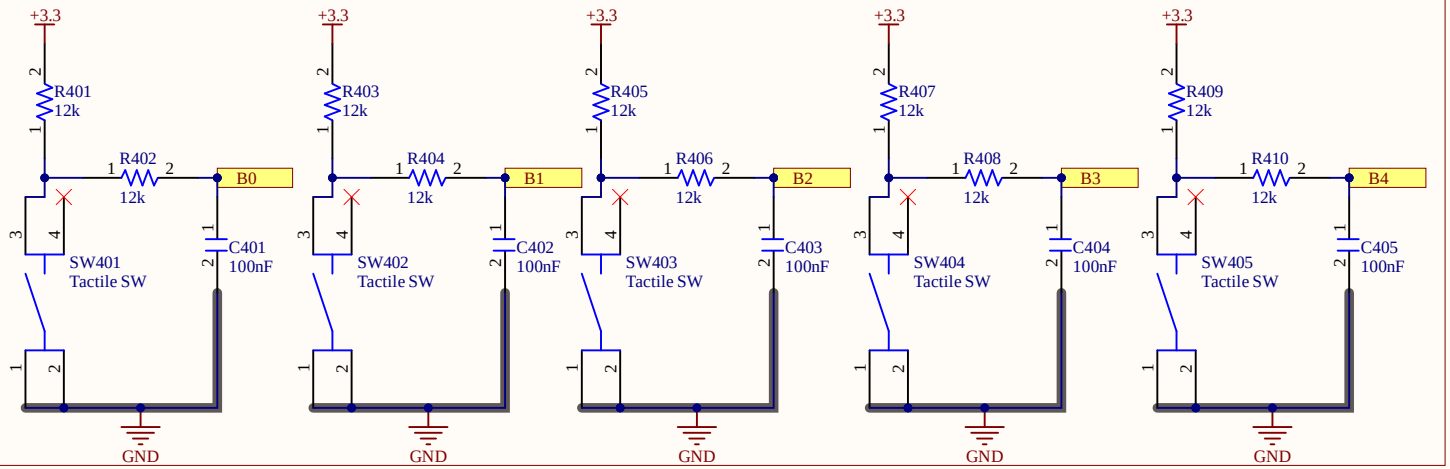
Device address is 0x77 if SDO is pulled up and 0x76 if SDO is pulled down to GND



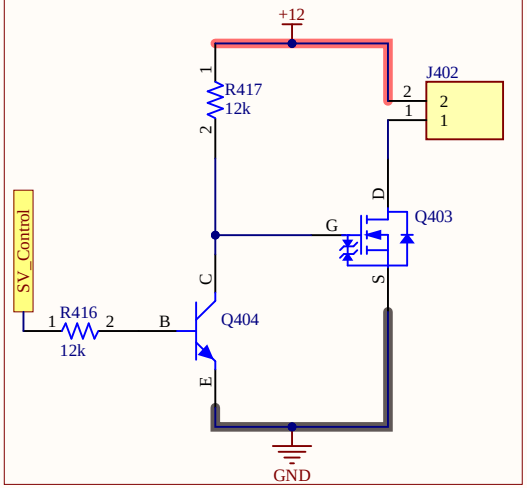
OpAmp Conditioning



User buttons

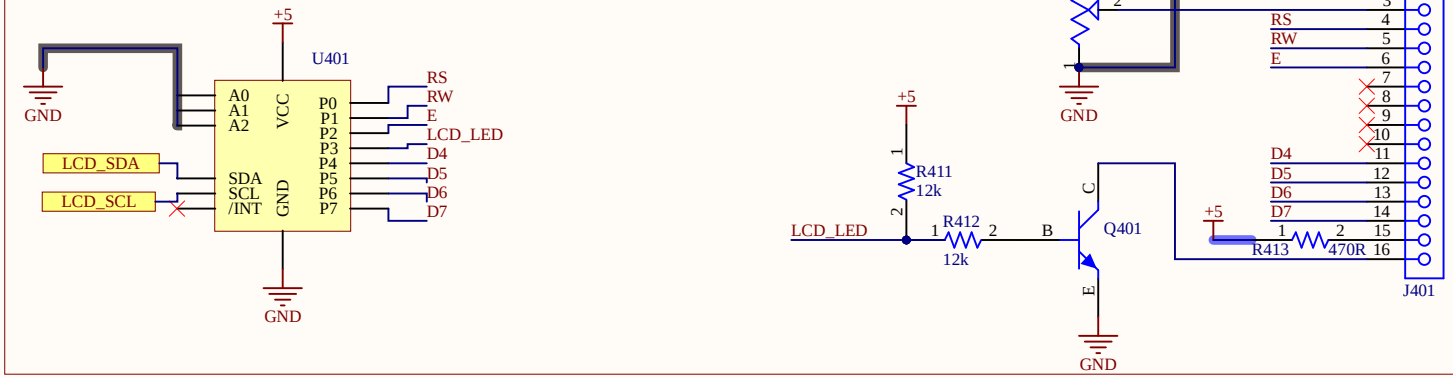


SV control

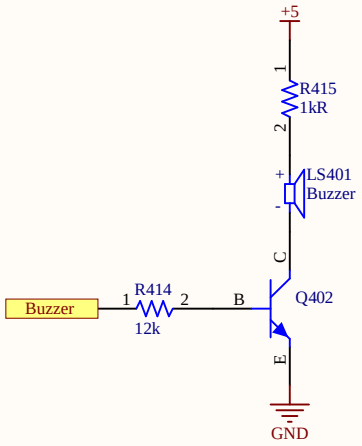


LCD 16x2

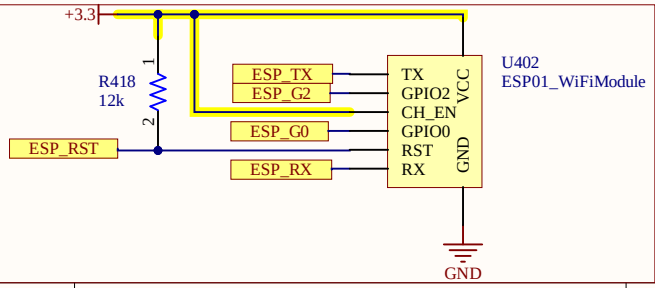
If A2, A1 and A0 are connected to GND read address is 0x71 and write address is 0x70

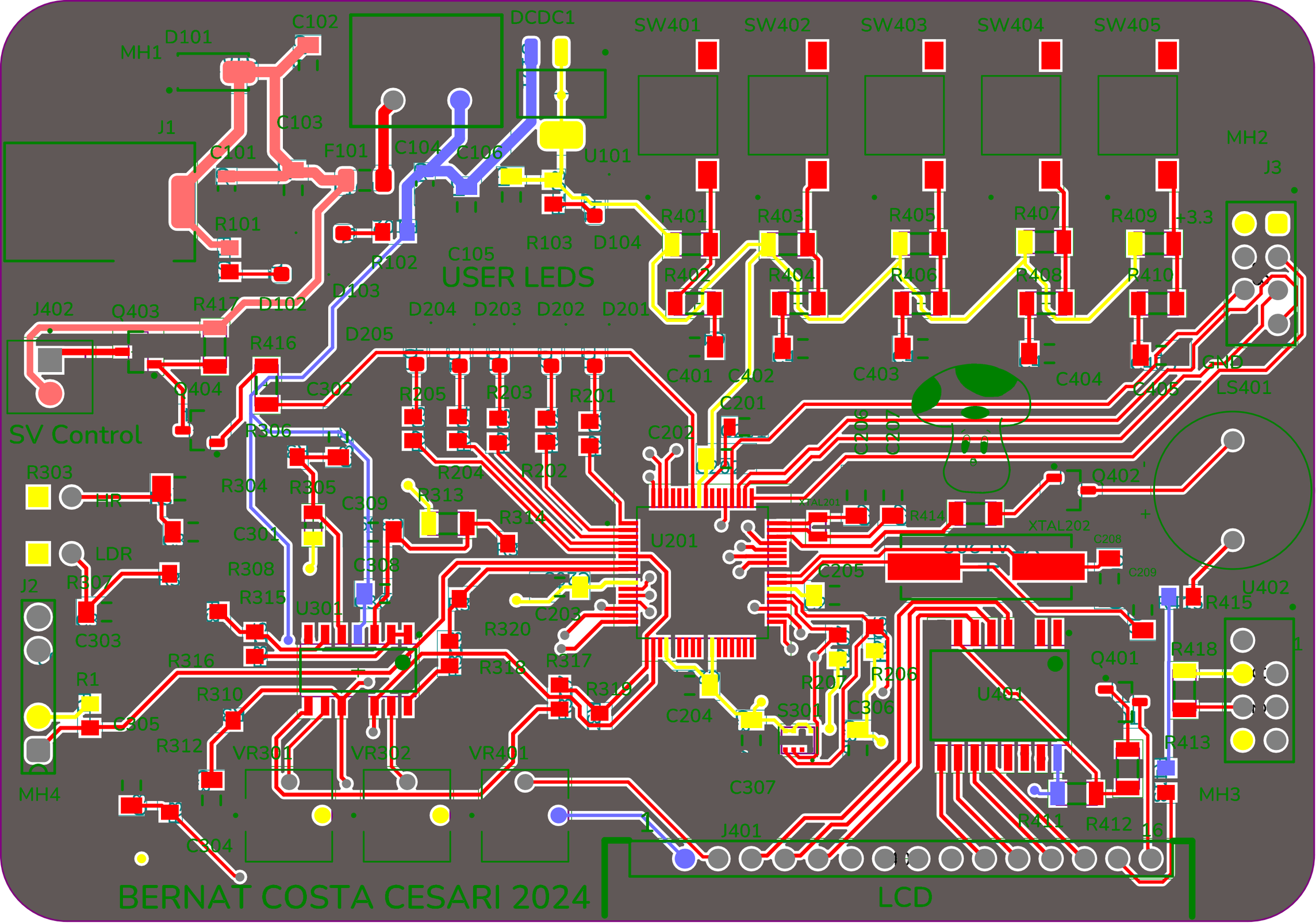


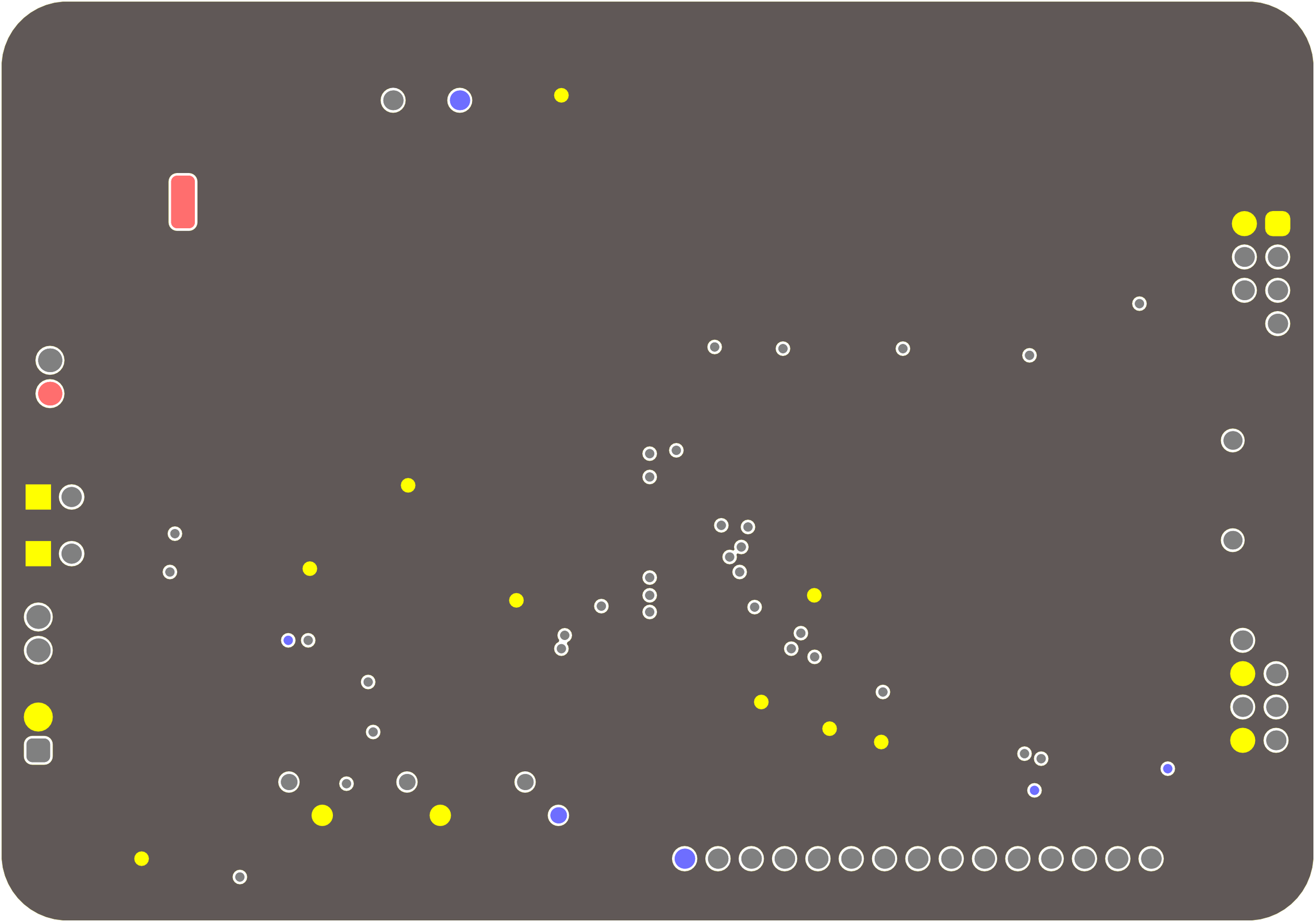
Buzzer



ESP01 WiFi Module




C102
DCDC1
SW401
SW402
SW403
SW404
SW405
MH1
D101
J1
C103
C101
F101
C104
C106
U101
MH2
J3
R101
R103
D104
R401
R403
R405
R407
R409
+3.3
R102
C105
USER LEDS
R402
R404
R406
R408
R410
D103
J402
Q403
R417
D102
D204
D203
D202
D201
D205
R416
C401
C402
C403
C404
C405
GND
LS401
Q404
C302
R205
R203
R201
C201
SV Control
R306
C202
R204
R202
Q402
R303
HR
R304
R305
C309
R313
R314
XTAL201
XTAL202
C208
C209
U402
LDR
R307
C301
U201
C205
R415
J2
R308
C308
R315
U301
C203
R320
R418
C303
R316
R317
R318
R207
R206
Q401
R1
R310
R319
C204
S301
C306
U401
C305
R312
R413
VR301
VR302
VR401
C307
MH4
MH3
C304
J401
R411
R412
LCD
BERNAT COSTA CESARI 2024



SMART GARDEN PCB

GH

R311

RAIN

R309