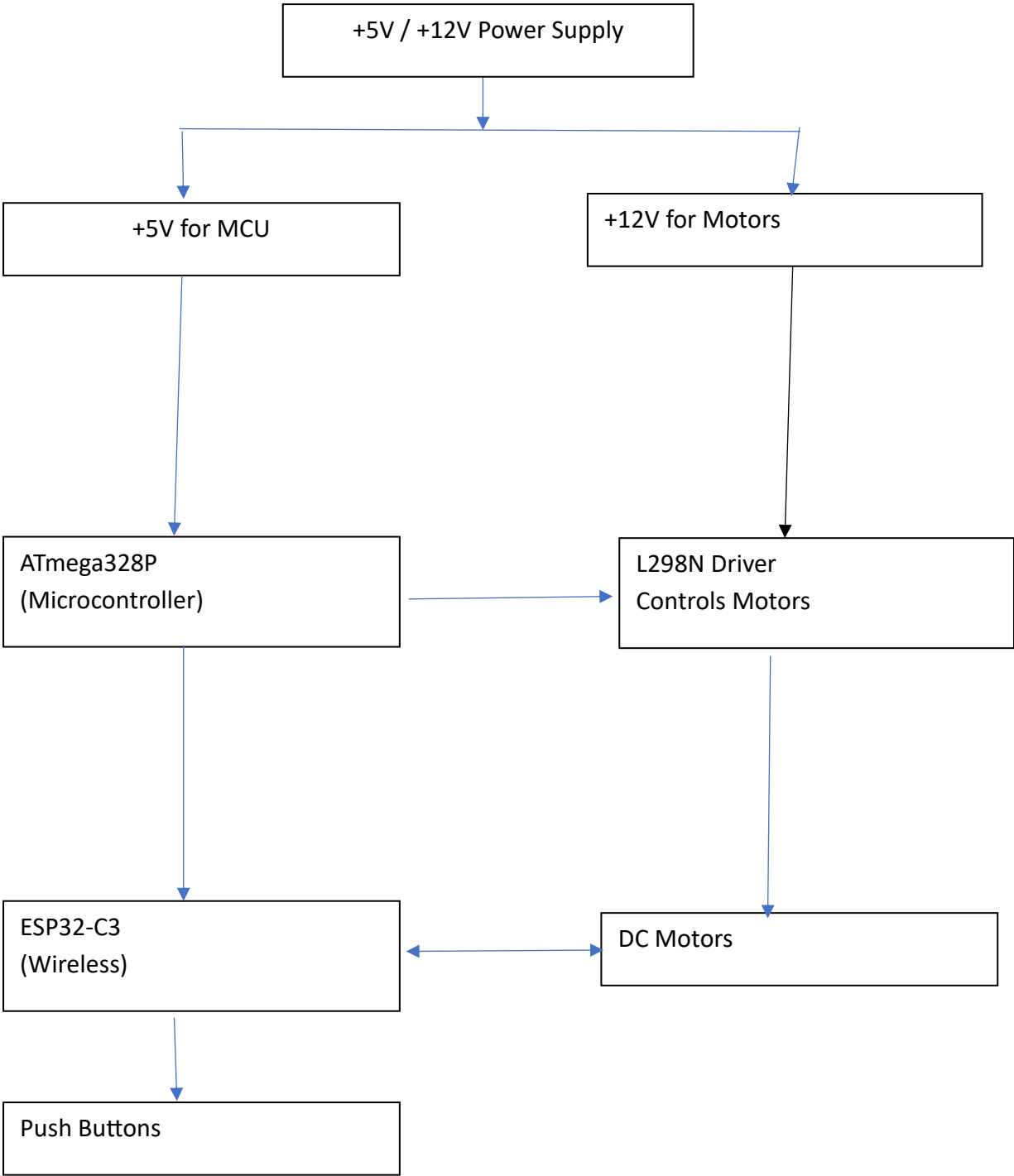
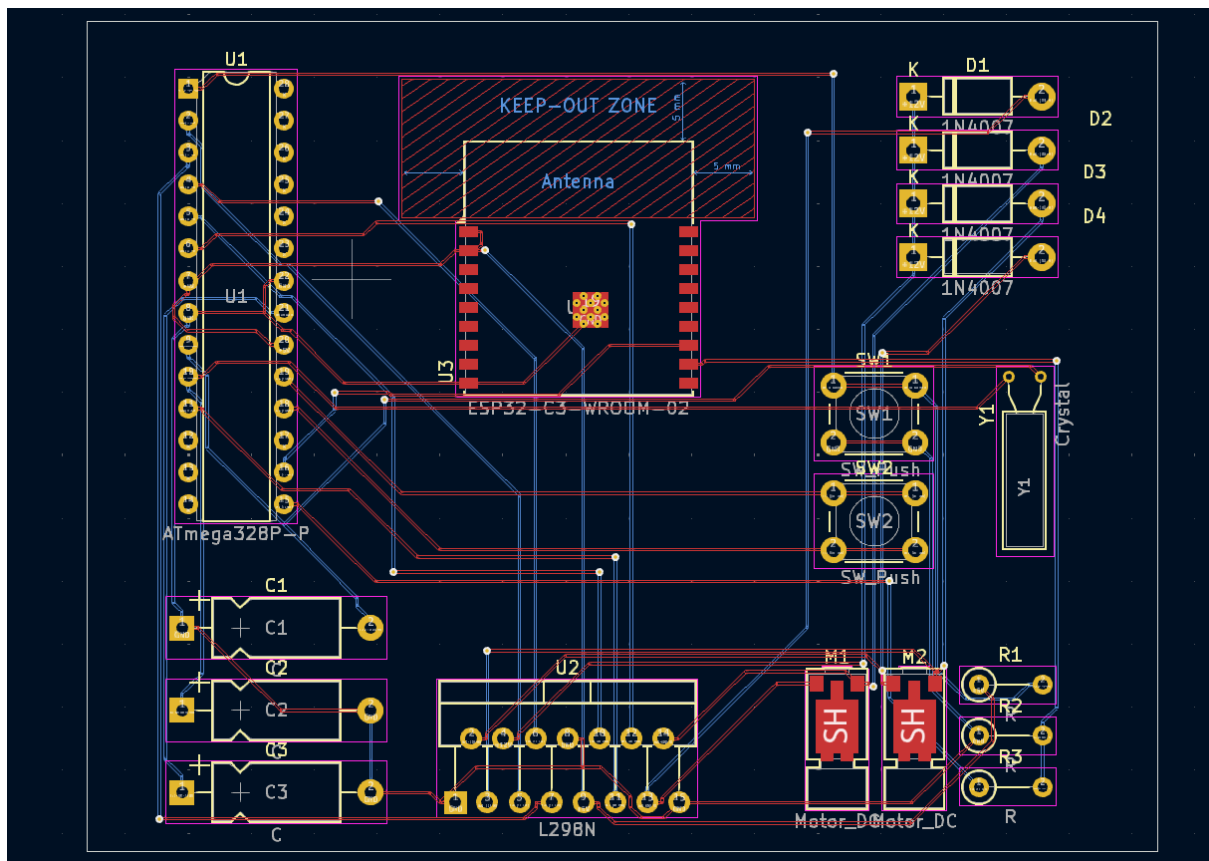


# BLOCK DIAGRAM

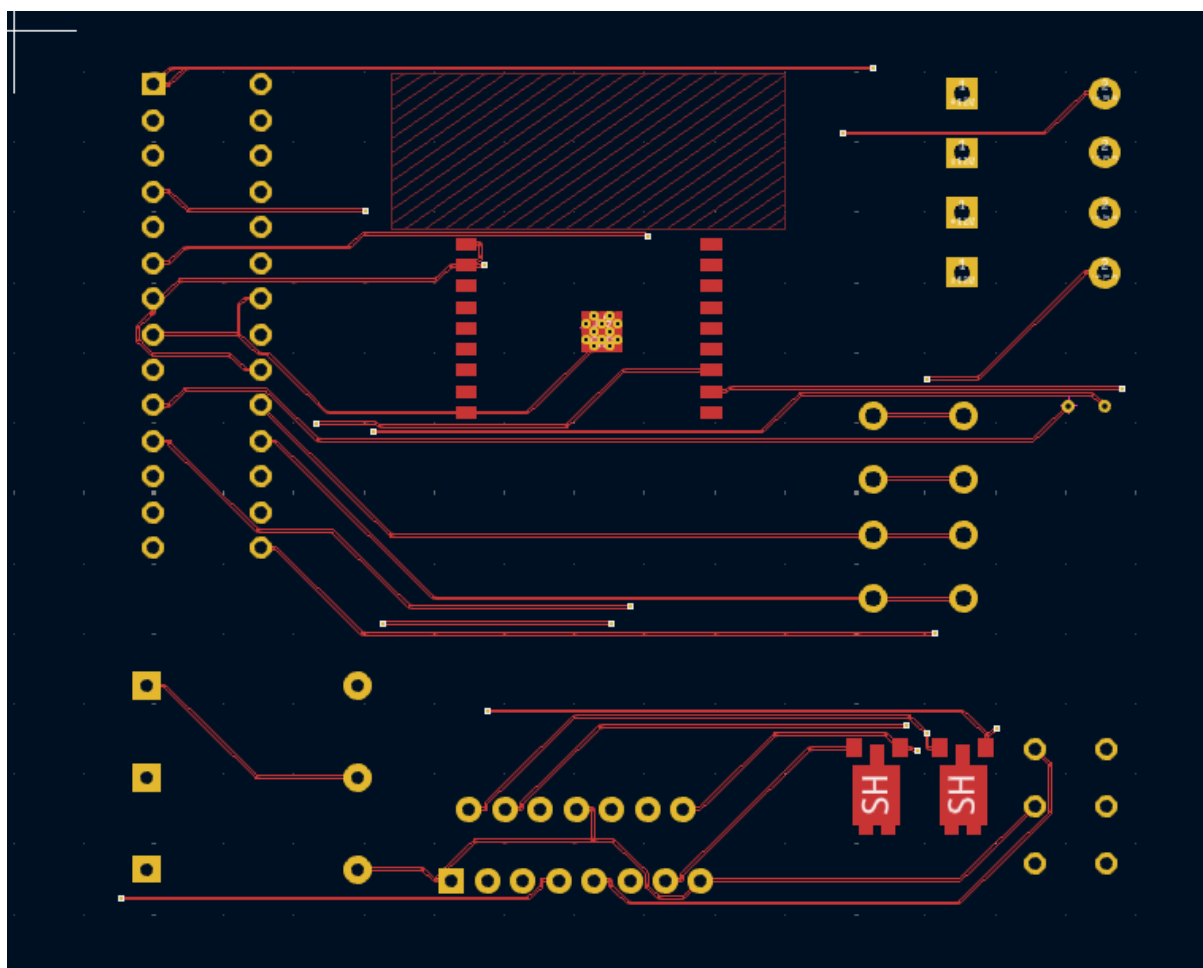


The diagram illustrates a motor control system. The ATmega328P microcontroller (U1) is powered by a +5V supply and has its reset pin connected to a push-button switch (SW1). Its I/O pins are connected to an ESP32-C3 module (U3) and a motor driver (U2). The ESP32-C3 is also powered by +5V and has its own push-button switch (SW2). The motor driver (U2) is powered by a +12V supply and controls a DC motor (M2) through two H-bridge stages, each consisting of two N-channel MOSFETs (D1, D2 and D3, D4) and two diodes (D5, D6 and D7, D8). The motor driver's sense pins (SENSE\_A, SENSE\_B) are connected to the microcontroller's ADC pins (ANALOG\_IN0, ANALOG\_IN1). The microcontroller's I/O pins are also connected to the ESP32-C3's I/O pins (IO0, IO1, IO2, IO3, IO4, IO5, IO6, IO7, IO8, IO9, IO10, IO11, IO12, IO13, IO14, IO15, IO16, IO17, IO18, IO19).

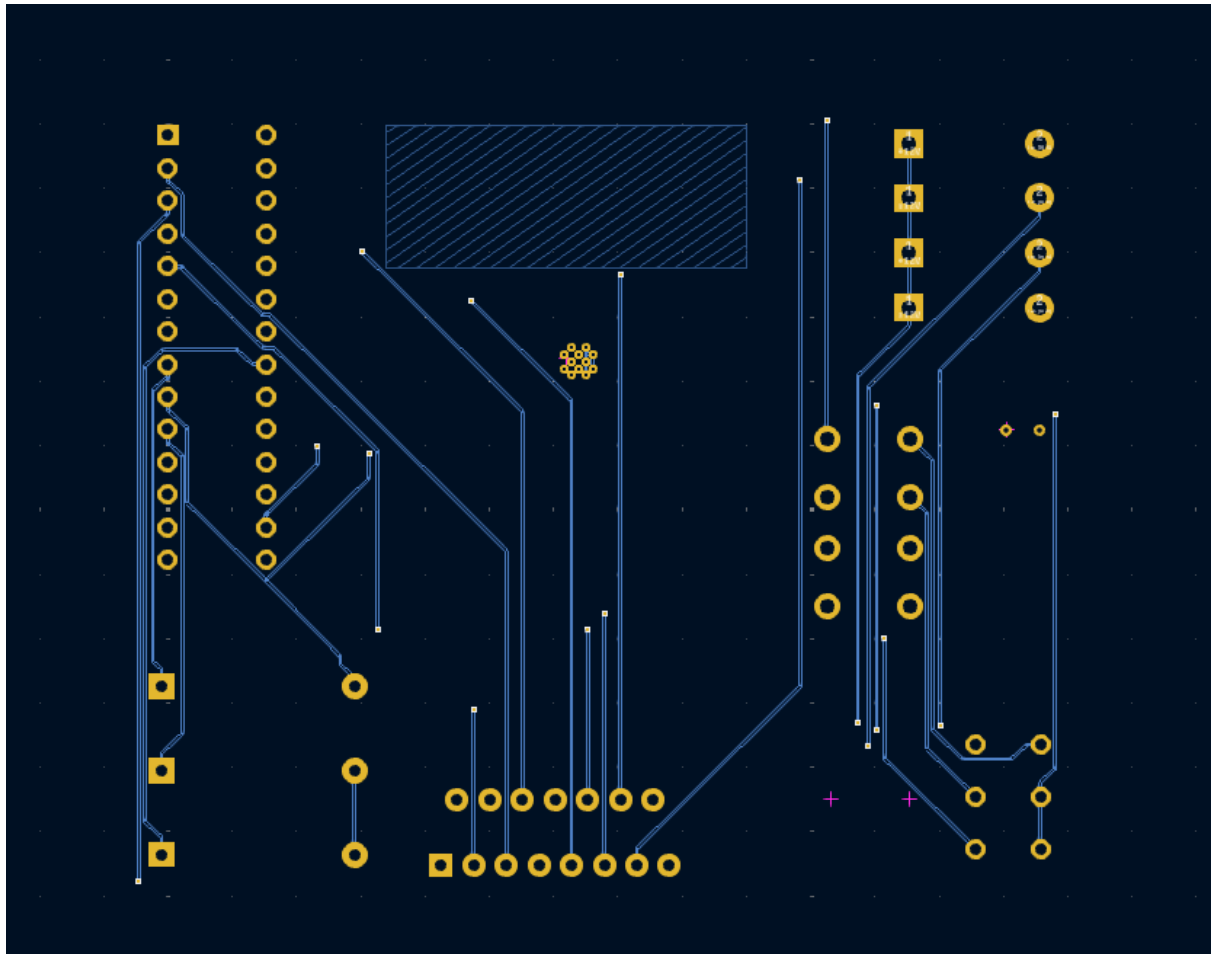
# LAYOUT



# FRONT COPPER



# BACK COPPER



# 3D OF PCB

