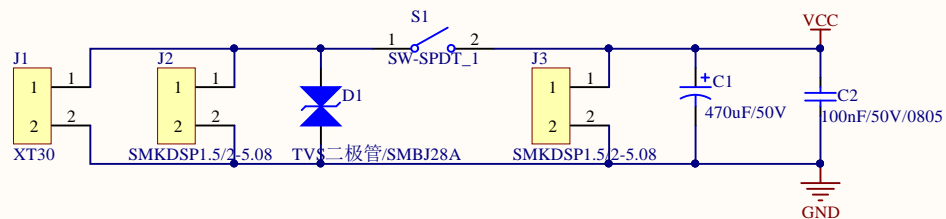
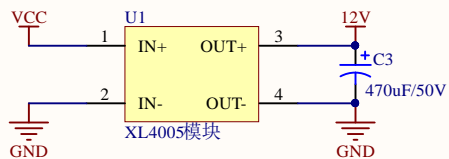


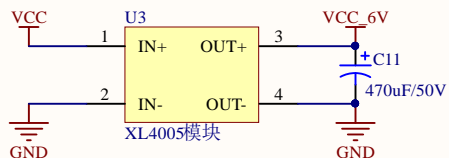
## 电源入口



## 蜗杆供电



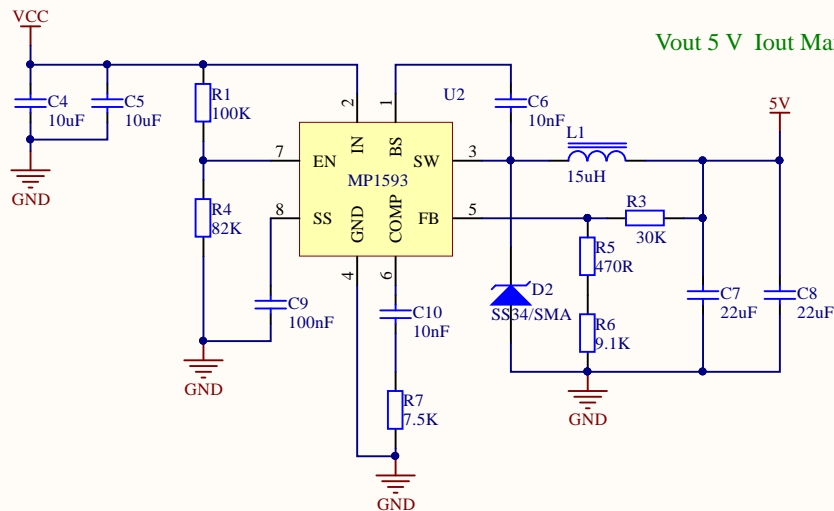
## 底盘电机供电



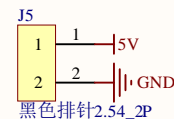
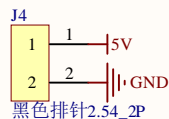
Vin 4.75V to 28V

## 转5V

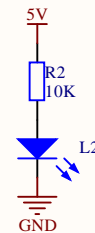
Vout 5 V Iout Max 3 A



## 预留供电



## 5V供电检测灯



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**底盘6V电机**

The diagram illustrates a PCB layout for a 6V motor driver, featuring four identical motor channels (PA1, PA2, PA3, PA4) connected to a common 6V supply and ground. Each channel includes a TVS diode, a 3.3V regulator, an IR2104S half-bridge driver, and an FDS9945 MOSFET. The layout is organized into six columns, with components labeled with their respective designators and values.

**Component Labels and Values:**

- TVS Diodes:** D7, D8, D15, D16 (TVS二极管/PTVS3V3S1UR)
- Resistors:** R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23 (220R, 30R, 510R)
- Capacitors:** C12, C13, C14, C15, C16, C17, C18, C19 (1uF/50V, 10uF)
- ICs:** U4, U5, U6, U7 (IR2104S), Q1, Q2, Q3, Q4 (FDS9945)
- Connectors:** J6, J7 (SMKDSPI.5/2-5.08)
- Power Supply:** VCC\_6V, GND

**Channel Details:**

- PA1:** TVS diode D15, 3.3V regulator, IR2104S driver U6, MOSFET Q3.
- PA2:** TVS diode D8, 3.3V regulator, IR2104S driver U5, MOSFET Q2.
- PA3:** TVS diode D16, 3.3V regulator, IR2104S driver U7, MOSFET Q4.
- PA4:** TVS diode D7, 3.3V regulator, IR2104S driver U4, MOSFET Q1.

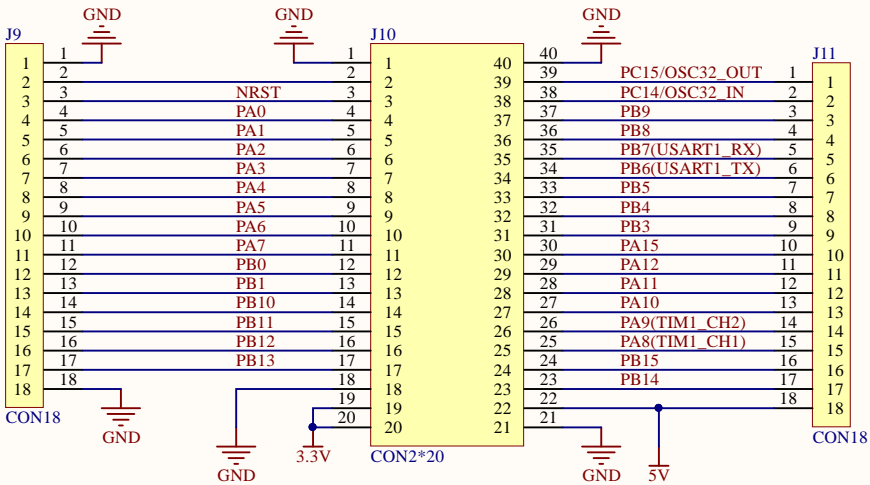
**Connectivity:**

- Each channel's MOSFET (Q1-Q4) is connected to the common 6V supply (VCC\_6V) and ground (GND).
- The MOSFETs are connected to the motor terminals via connectors J6 and J7.

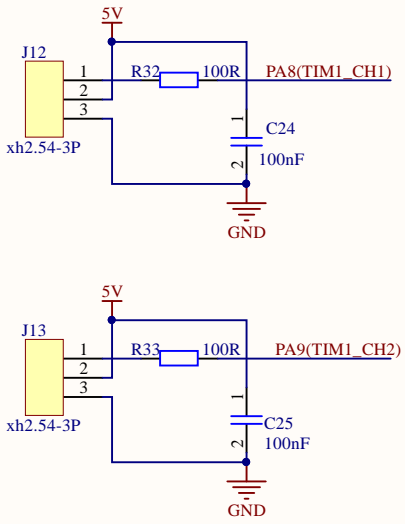
The diagram shows a PCB layout for a 12V motor driver. It features two identical driver channels, one for PA6 and one for PA7. Each channel consists of a TVS diode (D21, D25) for protection, a 3.3V voltage divider (R24, R26; R28, R30) to provide a reference voltage, an IR2104S half-bridge driver (U8, U9) to drive the MOSFETs (Q5, Q6), and LEDs (D19, D23) for status indication. The MOSFETs are FDS9945. The LEDs are SS34-SMA. A 12V supply and ground are connected to each channel. A connector J8 is used for the motor wires.

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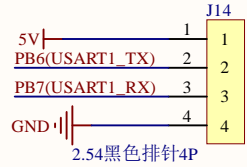
# 主控接口分布



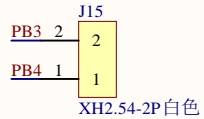
# 舵机预留



# USART1

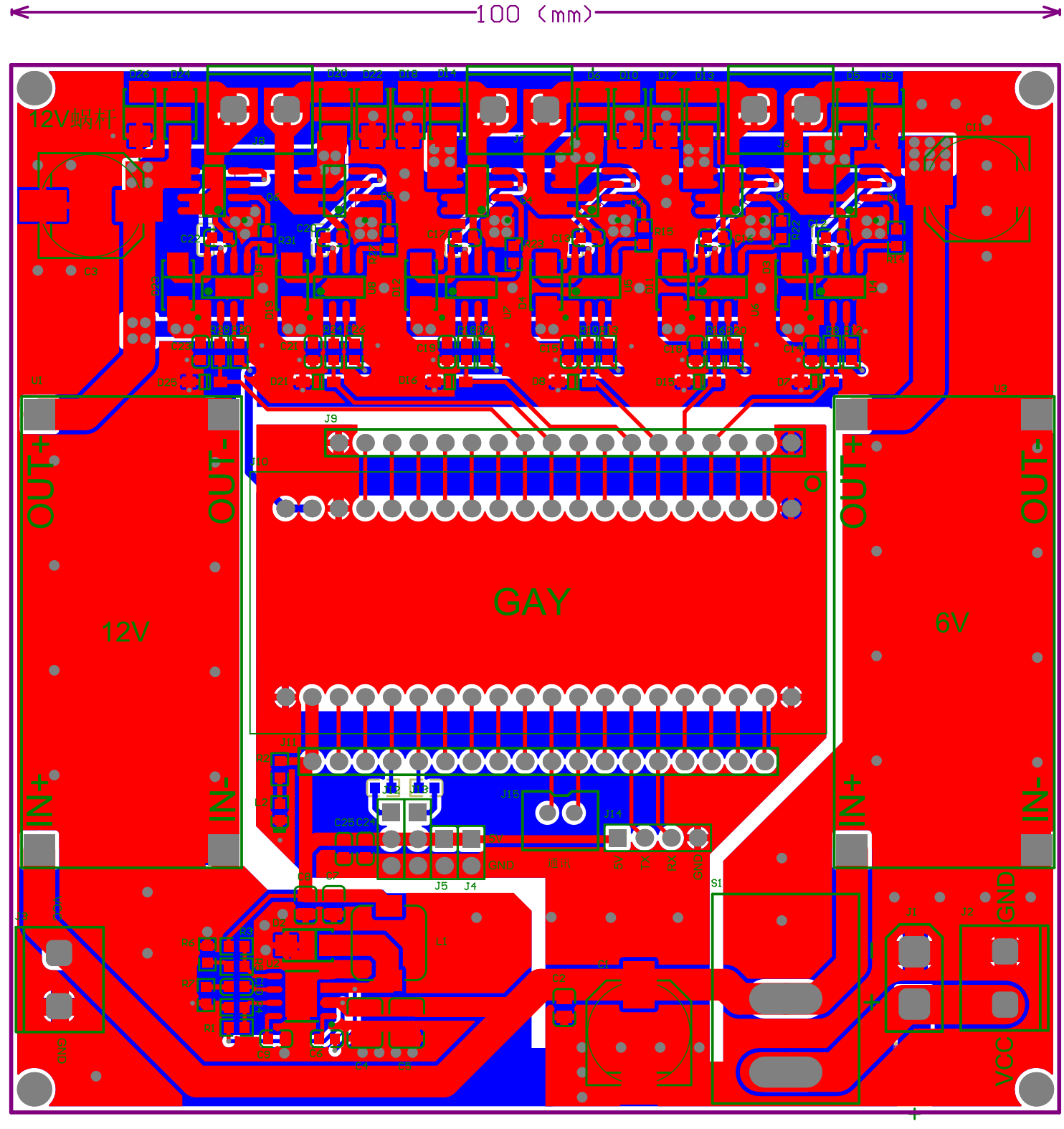


# 轻触开关接口



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