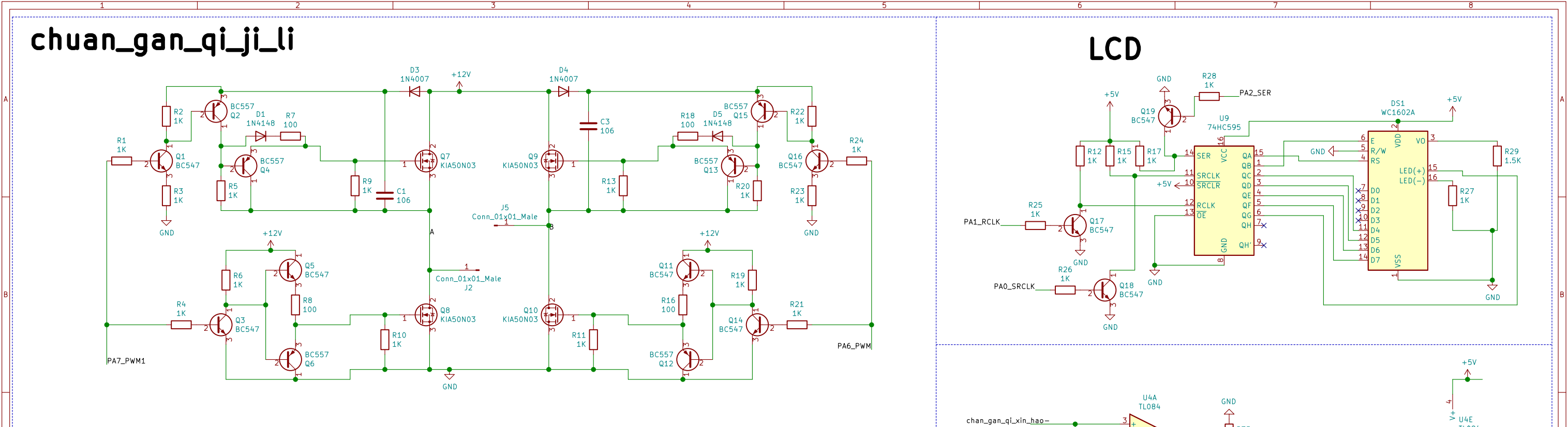


chuan_gan_qi_ji_li

chuan_gan_qi_ji_li

LCD

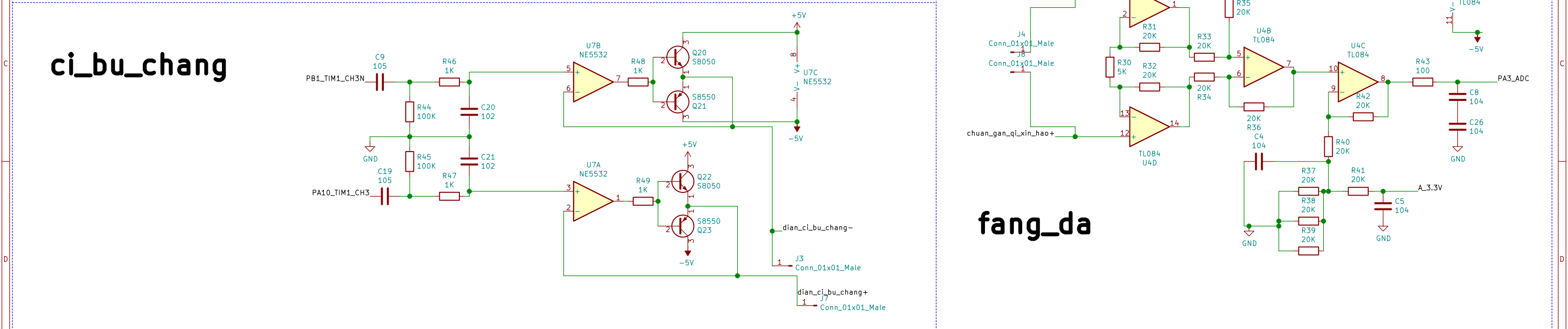
chan_gan_qi_xin_hao



The image displays two circuit diagrams, labeled **ci_bu_chang** and **fang_da**, which are part of a larger system.

ci_bu_chang (Left Diagram): This circuit is a differential amplifier. It features two input channels, **PB1_TIM1_CH3N** and **PA10_TIM1_CH3**, each connected to a 105 capacitor (C9, C19). The signals pass through 100K resistors (R44, R45) and 1K resistors (R46, R47) before entering NE5532 operational amplifiers (U7B, U7A). The outputs of these op-amps are connected to a pair of S8550 NPN transistors (Q20, Q21 and Q22, Q23) configured as a push-pull stage. The final output is taken from the emitter of the transistors, labeled **dian_ci_bu_chang-** and **dian_ci_bu_chang+**, which are connected to a 5V supply and a 1x01 Male connector (J3).

fang_da (Right Diagram): This circuit is a multi-stage signal processor. It starts with two input channels, **Conn_01x01_Male** (J4, J5), which pass through 5K and 20K resistors (R30, R31, R32, R33, R34) into TL084 operational amplifiers (U4D, U4B). The outputs of these op-amps are connected to a third TL084 op-amp (U4C) through 20K resistors (R35, R36). The output of U4C is then connected to a 100 resistor (R43) and a 104 capacitor (C8) to the **PA3_ADC** pin. Additionally, there is a 3.3V regulator section consisting of a 104 capacitor (C4), a 20K resistor (R40), and a 3.3V diode (C5) connected to **A_3.3V**.



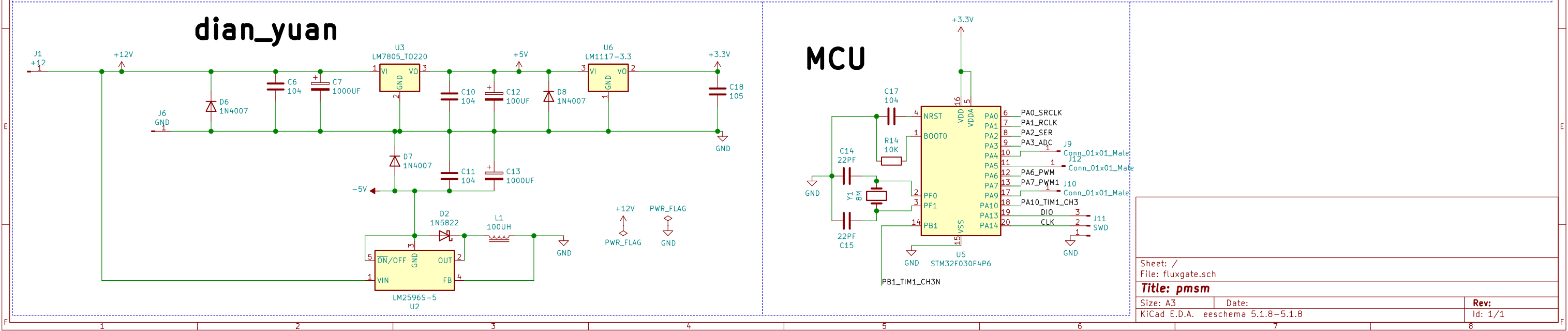
The image displays a PCB layout for a microcontroller-based system, divided into two main sections: the power supply section (labeled 'dian_yuan') and the MCU section.

Power Supply Section (dian_yuan):

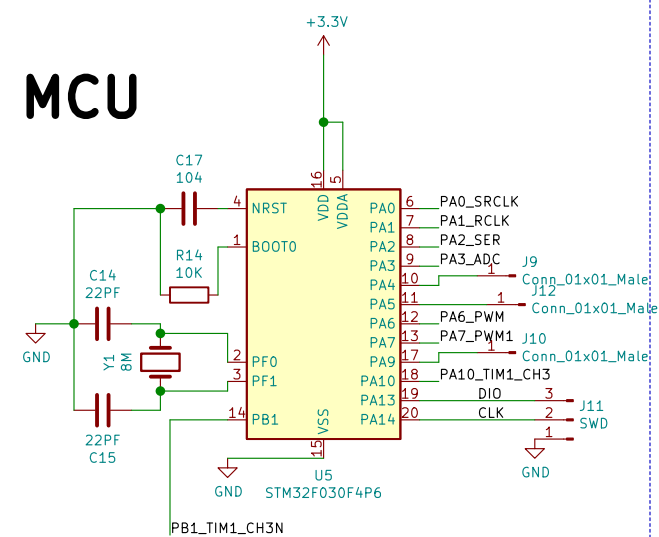
- Input:** A +12V input is connected to the circuit via J1.
- Regulators:**
 - U3 (LM7805-TO220):** A 5V linear voltage regulator. Its input (VI) is connected to the +12V line, and its output (VO) provides the +5V supply.
 - U6 (LM1117-3.3):** A 3.3V linear voltage regulator. Its input (VI) is connected to the +5V line, and its output (VO) provides the +3.3V supply.
 - U2 (LM2596S-5):** A -5V buck converter. Its input (VIN) is connected to the +12V line, and its output (OUT) provides the -5V supply.
- Capacitors:** Various electrolytic and ceramic capacitors (C6, C7, C10, C12, C13, C18) are used for decoupling and filtering at different voltage levels.
- Diodes:** Schottky diodes (D6, D7, D8) are used for protection and rectification in the power paths.
- Inductor:** An inductor (L1) is part of the -5V buck converter circuit.
- Control:** A control line (PWR_FLAG) is connected to the regulators, likely for power management or shutdown.

MCU Section:

- Microcontroller:** The STM32F030F4P6 is the central MCU. It is connected to the +3.3V and GND rails.
- Reset:** A reset button (J9) is connected to the NRST pin (pin 4) of the MCU.
- Crystal:** A crystal oscillator (Y1) is connected to the PF0 and PF1 pins (pins 2 and 3) for clock generation.
- Connectors:** Various connectors (J10, J11, J12) are shown, likely for debugging or external communication.
- Other Components:** A 22pF capacitor (C15) is connected to the VSS pin (pin 15) for decoupling.



MCU



Sheet: /		
File: fluxgate.sch		
Title: pmsm		
Size: A3	Date:	Rev:
KiCad E.D.A.	eeschema 5.1.8-5.1.8	Id: 1/1