Final Design

Battery Powered Analog Section

1. Design battery boost circuit 3.6v to 5 and 5 to -5v,
   - Add connector for input;
   - Add circuit protections;
   - Add test point of all voltages
2. Design 0.5 A battery charger circuit
3. Design ECG Analog front end;
   - Add test point of analog front end output
   - you can use LMC7660 insted of LM2776 and INA188 instead of AD620
4. add battery input connector and 5v input connector for battery charger

DC High Power Section

1.Design 12v to 5v buck convertor ,5v to 3.3v linear regulator

- Add connector for 12v input;
- Add circuit protections;(reverse polarity with p channel mosfet)
- Add test point of all voltages

2. Design 12 v 0.5A Dc motor driver(add motor connector)

3. Design 12 v 1A Relay circuit(add connector for relay)

4. Design 12v 1A led driver(add connector for led)

Add test point or header to control dc motor, relay circuit and led driver

*Design 4 layer Pcb(signal-gnd-power-signal)