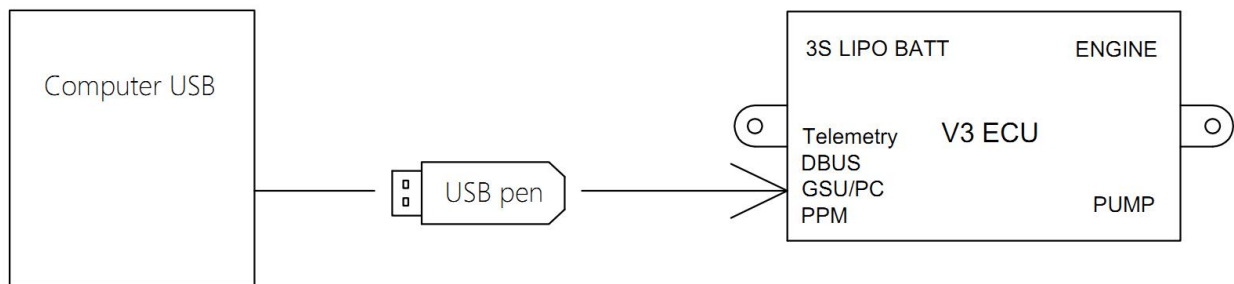
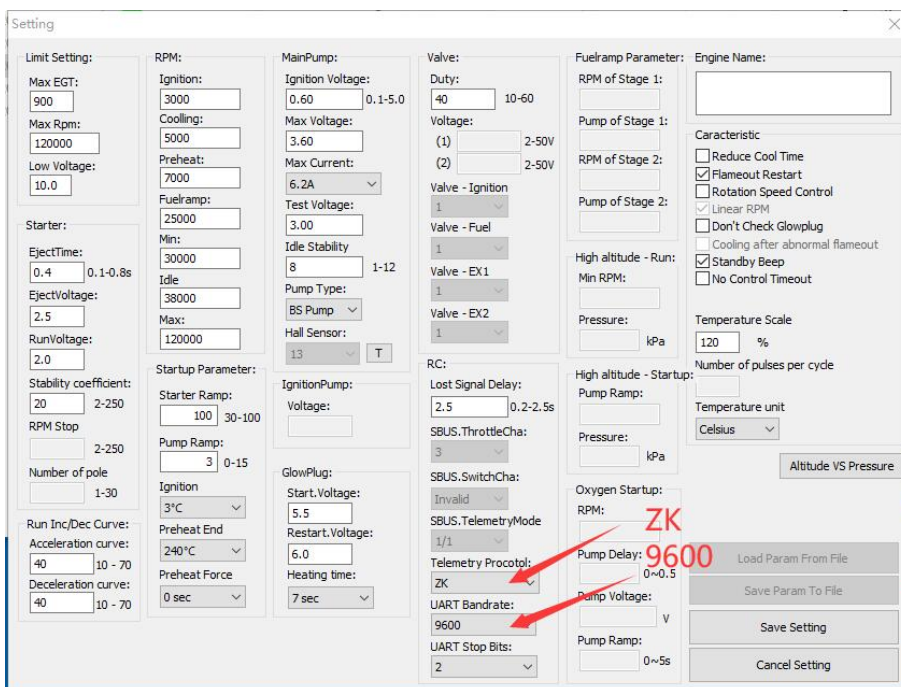


“ECUctrl ZK” program with V3 ECU

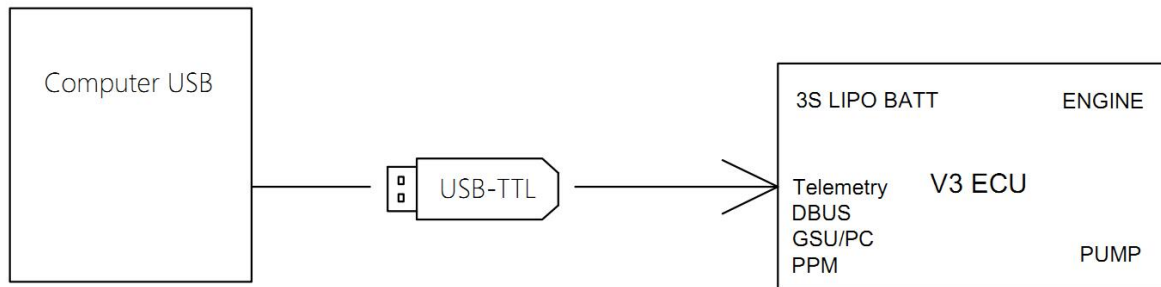
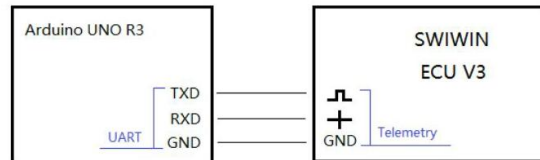
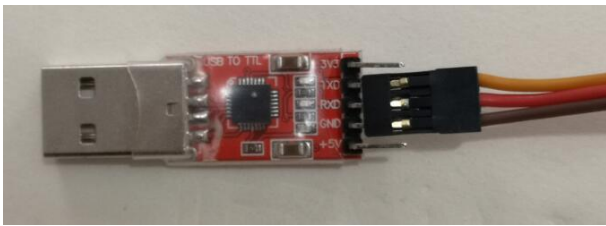
1. Use USB upgrade pen connect V3 ECU GSU/PC port to computer.



2. Open “ECU tool” program to change parameter of V3 ECU:

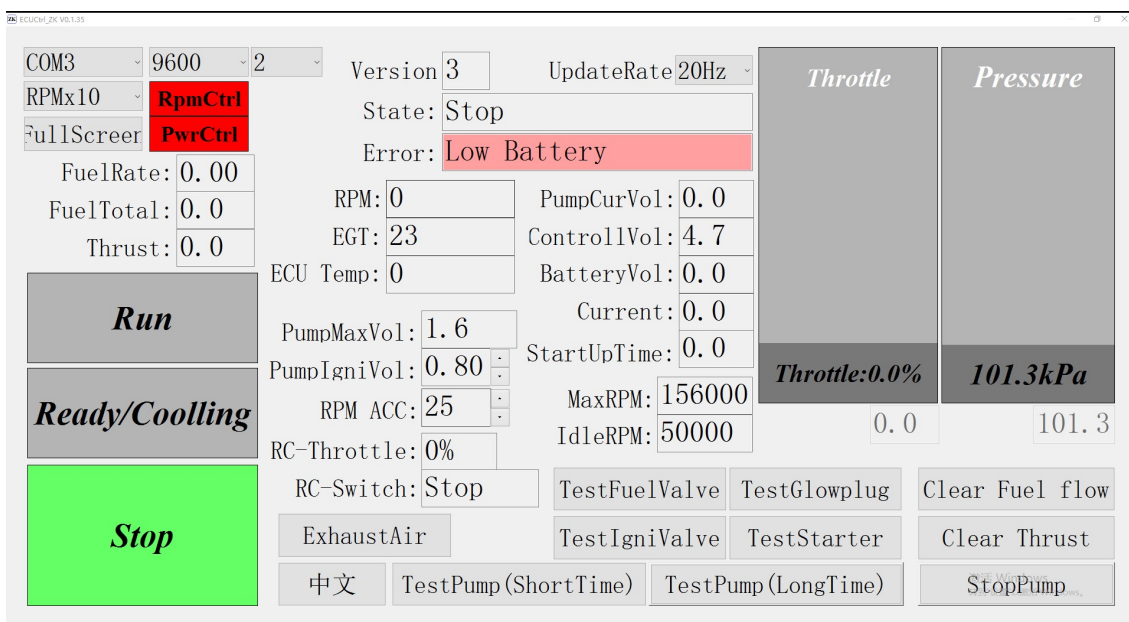


3. Connect USB-TTL converter to V3 ECU telemetry port



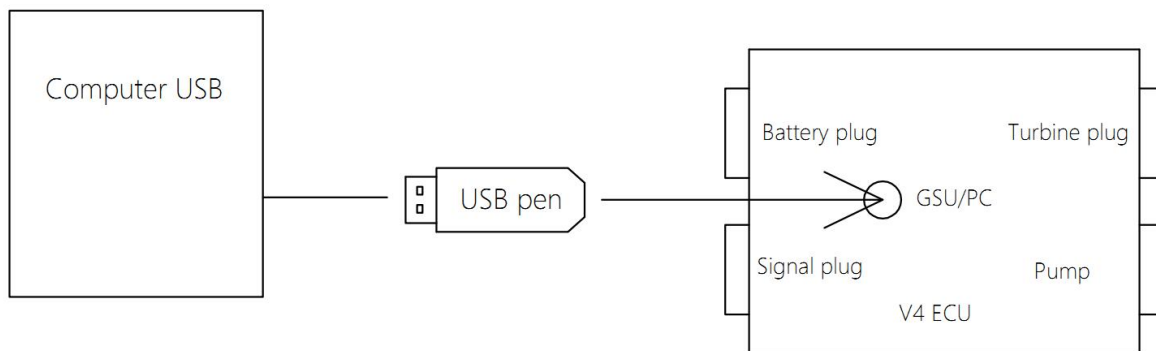
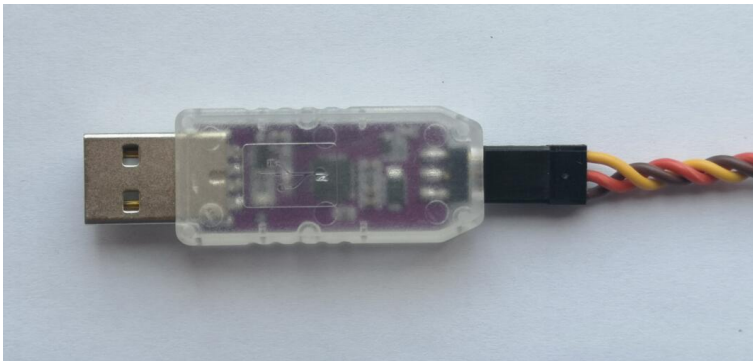
4. Open "ECUctrl_ZK" program

Set Baud rate:9600

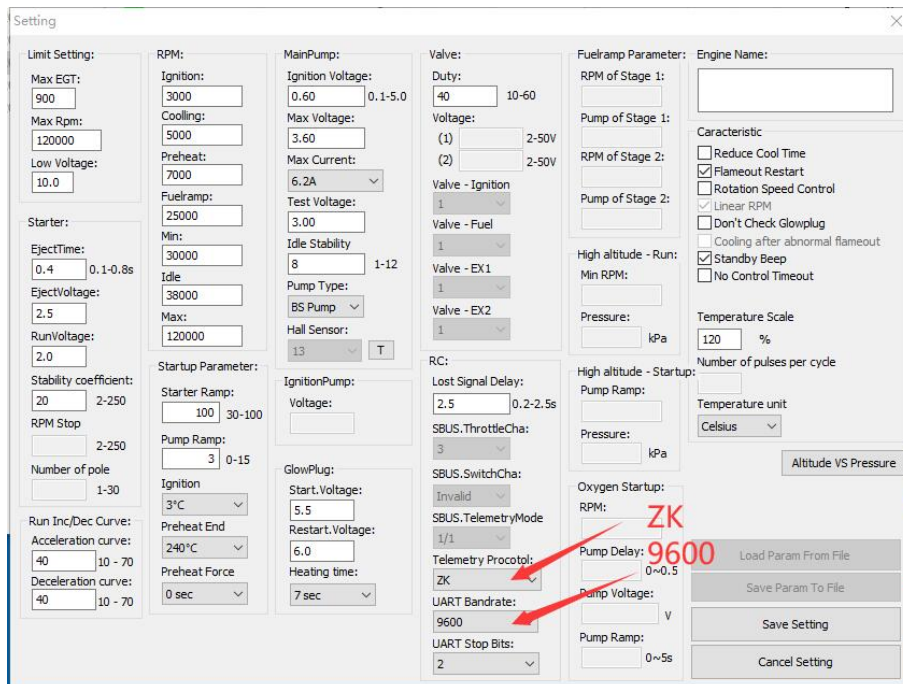


“ECUctrl ZK” program with V4 ECU

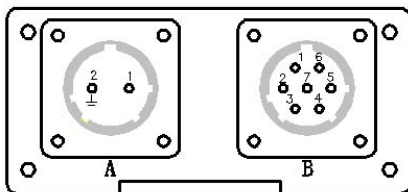
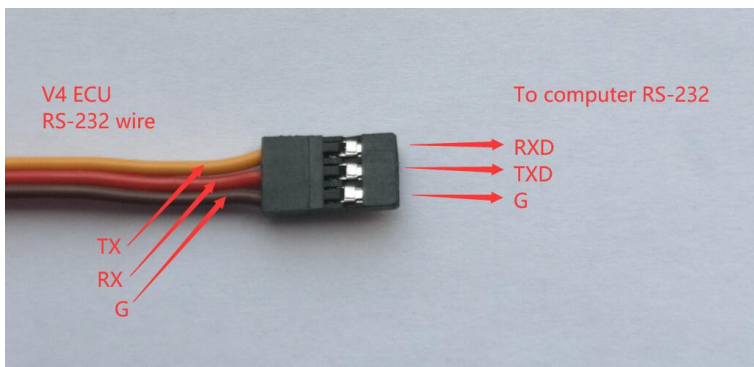
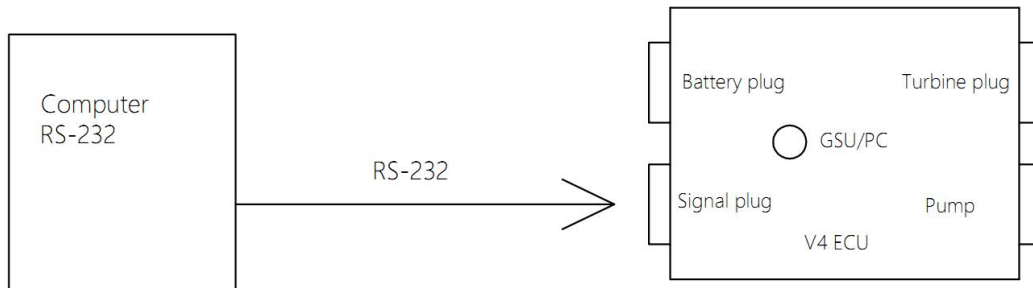
1. Use USB upgrade pen connect V4 ECU GSU/PC port to computer



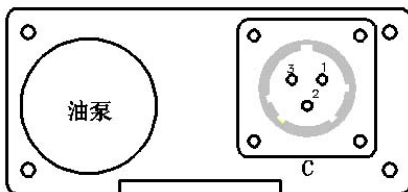
2. Open “ECU tool” program to change parameter of V4 ECU:



3. Connect V4 ECU via RS-232 to computer and open "ECUctrl_ZK" program:



- | | |
|---------------------|----------------------------|
| A : ECU power | B : ECU data |
| 1 : (+)11.5-17V 10A | 1 : Switch PWM |
| 2 : (-) GND | 2 : Throttle Switch (+) 6V |
| | 3 : RS232 TX |
| | 4 : RS232 GND |
| | 5 : RS232 RX |
| | 6 : Throttle PWM |
| | 7 : Throttle Switch (-) |



- C : ECU to Turbine
- 1 : (-)
 - 2 : (+)
 - 3 : Data

Set Baud rate:9600

The screenshot displays the ECU control software interface. At the top left, the COM port is set to COM3, the baud rate is 9600, and the update rate is 20Hz. The software version is 3. The engine state is 'Stop' with a 'Low Battery' error. The throttle is at 0.0% and the pressure is 101.3kPa. The engine RPM is 0, and the ECU temperature is 0. The fuel rate is 0.00, fuel total is 0.0, and thrust is 0.0. The interface includes several control buttons: 'Run' (grey), 'Ready/Cooling' (grey), and 'Stop' (green). There are also buttons for 'TestFuelValve', 'TestGlowplug', 'Clear Fuel flow', 'ExhaustAir', 'TestIgniValve', 'TestStarter', 'Clear Thrust', 'TestPump (ShortTime)', 'TestPump (LongTime)', and 'StopPump'. The 'RpmCtrl' and 'PwrCtrl' buttons are highlighted in red.

Parameter	Value
COM3	9600
UpdateRate	20Hz
Version	3
State	Stop
Error	Low Battery
FuelRate	0.00
FuelTotal	0.0
Thrust	0.0
RPM	0
EGT	23
ECU Temp	0
PumpCurVol	0.0
ControllVol	4.7
BatteryVol	0.0
Current	0.0
StartUpTime	0.0
PumpMaxVol	1.6
PumpIgniVol	0.80
RPM ACC	25
MaxRPM	156000
IdleRPM	50000
RC-Throttle	0%
RC-Switch	Stop
Throttle	0.0%
Pressure	101.3kPa

Reference video:

https://youtu.be/fzBwkJlm_Ls

<https://youtu.be/8ODPzKxBIP8>