1

### M5 Basic 主机烧录以下串口转发程序

(如自行通过 USB 转串口模块直接连接 Module GPS,可直接跳到第3步)

```
#include <M5Stack.h>
void setup()
{
   M5.begin();
   Serial.begin(9600);
   Serial2.begin(9600, SERIAL_8N1, 16, 17);
}
void loop()
{
   while (Serial2.available()) {
       Serial.write(Serial2.read());
   }
   while (Serial.available()) {
       Serial2.write(Serial.read());
    }
}
```

### 2

将 Module GPS 接上 M5 Basic 主机,并将主机连接电脑。

使用串口调试助手,确保主机能正常输出 GPS 信息



# 3

在官网下载安装 u-center 上位机: <u>https://www.u-blox.com/en/product/u-center</u>

打开 u-center 上位机,选择型号: Receiver -> Generation -> u-blox M8/8

左上角选择对应 串口端口 和 波特率 , 然后点击 Create a text console , 确保正常输出信息



选择: View -> Configuration View 打开配置菜单

点击 GNSS 选项,根据自己需求在 Enable 栏勾选,并点击 Send

Configure - GNSS Configuration								- • •
ANT (Antenna Settings)	UBX - C	UBX - CFG (Config) - GNSS (GNSS Config)						
BATCH (Batch mode output)								
CFG (Configuration)	Channels							
DAT (Datum)	ID	GNSS	Configure	Enable	min	max	Signals	
DGNSS (Differential GNSS configuration	0	GPS	$\checkmark$	◄	8	16	🔽 L1C/A	
DOSC (Disciplined Oscillator)	1	SBAS		$\checkmark$	1	3	🔽 L1C/A	
EKF (EKF Settings)	2	Galileo	$\checkmark$		4	8	🔽 E1	
ESFA (Accelerometer Config)	3	BeiDou	<b>V</b>		8	16	✓ B1	
ESFALG (IMU-mount Alignment)	4	IMES	2		0	8		
ESFG (Gyroscope Config)		0766				2		
ESFGWT (Gyro+Wheeltick)	0	QZ33	•		Ľ–	3		
ESFWT (Wheel-Tick Config)	ь	GLUNASS	V		N	14	IM L10F	
ESRC (External Source Config)	7	NAVIC			<u>۱</u>			
FXN (Fix Now Mode)					I			
GEOFENCE (Geofence Config)	Number of channels available 32							
GNSS (GNSS Config) 2	Number of channels to use				32	🔲 Aut		
HNR (High Nav Rate)								
INF (Inf Messages)	For specific SBAS configuration use							
ITFM (Jamming/Interference Monitor)								
LOGELITER (Log Settins)								
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# 5

点击 CFG 选项, 勾选 Save current configuration 保存配置



## 6

点击 RST 选项, 勾选 Coldstart 并点击 Send



#### 到此配置完成,具体事项请查阅文档:

https://www.u-blox.com/sites/default/files/products/documents/u-blox8-M8\_ReceiverDescrProtSp ec\_UBX-13003221.pdf

#### 4.2.1 Switching between GNSS

Users should be aware that switching between GNSS (and especially away from GPS) may affect the long term accuracy of the receiver until the next cold start. In normal operation the receiver selects the best models and corrections from the transmitted auxiliary data (e.g. UTC and lonospheric parameters), basing this selection on the configured GNSS. Disabling a major GNSS prevents auxiliary data from that GNSS being refreshed and so it will become stale, resulting in progressively degraded performance. This can occur even if the main power supply is removed, as most receivers retain auxiliary data in non-volatile storage, e.g. Battery Backed RAM (BBR). For this reason, u-blox recommends that receivers are cold started after any change that disables an active GNSS, within a few weeks, but preferably immediately. This will ensure that the receiver then uses only regularly refreshed information from the newly configured constellations.