

faro_can_sdk_demo.c

This document build base on faro_can_sdk_demo.c function:

-h --help description

command	Value(First)	Value(Second)
-h	N/A	N/A
Description: Showing functions list description		
Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -h		
Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -h		
Receive: functions list description		

-s--scan port

Command	Value(First)	Value(Second)
-s	N/A	N/A
Description : Scan available Com Port in computer.		
Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -s		
Receive: /dev/ttyUSB1 /dev/ttyUSB0		

-p – open port

Command	Value(First)	Value(Second)
-p	Port name	N/A
Description: Set comport. Using Seliconlab comport, port name will be “ttyUSBx” Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> <UART Device> Seliconlab comport, port name will be “ttyUSBx”		
Example sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0		

-d-- deinit time

Command	Value(First)	Value(Second)
-d	Program run time(seconds)	N/A
Description: Set Demo program running time. If not set this command, Demo program will be set default time in 30 seconds, when running time out, demo program will stop and exit automatically. If set value is -1, then demo program will not stop, until user using “ctrl-c” to manually stop demo program. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> <DemoAP command> <deinit time> <DemoAP command> According demo AP function list. <deinit time> Set value for close demo function, unit second. Default value is 30 seconds. If set value -1, then demo program will not stop, until user using “ctrl-c” to manually stop demo Value : -1 ~ 65535		
Example : sudo ./bin/ faro_can_sdk_demo -p /dev/ttyUSB0 -g -d 40		

Receive:

Firmware version and thread will stop in 40 seconds.

-g – get firmware version

Command	Value(First)	Value(Second)
-g	N/A	N/A
Description : Get module firmware version. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -g		
Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -g Receive: fw_ver: 04.01.10.20.14		

-c – can config

Command	Value(First)	Value(Second)
-c	Can Port value	Can speed
Description : Set module can speed value. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -c <port> <can speed> <port> Set can port 0 : port 0 1 : port 1 <can speed> Set can speed 0 : 1M 1 : 800K 2 : 500K 3 : 250K		

4 : 200K
5 : 125K
<p>Example :</p> <pre>sudo ./bin/faro_can_sdk_deno -p /dev/ttyUSB0 -c 0 2</pre> <p>Receive :</p> <pre>port = 0, speed = 2</pre>

-b – reset module

Command	Value(First)	Value(Second)
-b	N/A	N/A
<p>Description:</p> <p>Set module reset.</p> <p>Syntax:</p> <pre>sudo ./bin/faro_can_sdk_demo -p <UART Device> -b</pre>		
<p>Example :</p> <pre>sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -b</pre> <p>Receive :</p> <pre>Testing port = /dev/ttyUSB0, baudrate = B921600 ***** Adopting port = /dev/ttyUSB0, baudrate = B921600 reset module finish.</pre>		

-m – mode active

Command	Value(First)	Value(Second)
-m	Can Port value	Mode active value
<p>Description:</p> <p>Set can port mode active value.</p> <ul style="list-style-type: none"> * If open J1708 and J1708_21 mode, command will ignore Can port value setting. * if open CAN2ADR_OBD2 and CAN2ADR_J1939, Port value need to set in port 1. <p>Syntax:</p> <pre>sudo ./bin/faro_can_sdk_demo -p <UART Device> -m <port> <mode></pre> <p><port></p> <p>Set can port</p>		

0 : port 0
 1 : port 1
<mode>
 Set module active mode
 0 : Raw CAN
 1 : OBD2
 2 : J1939
 3 : J1708_27byte
 4 : CAN2ADR_OBD2
 5 : CAN2ADR_J1939
 8 : J1708_21
 9 : J1708_21_OFF

Example :

sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -m 0 1

Receive:

mode_active argument : 1 success.

-a -- set request time

Command	Value(First)	Value(Second)
-a	N/A	N/A

Description:

Set module request time.

Syntax:

sudo ./bin/faro_can_sdk_demo -p <UART Device> -a <port> <request time>

<port>

Set can port

0 : port 0

1 : port 1

<request time>

Set ADR request time, unit millisecond

Value : 1 ~ 100 ms

Example :

sudo ./bin/faro_can_sdk_deno -p /dev/ttyUSB0 -a 0 100

Receive:

Testing port = /dev/ttyUSB0, baudrate = B921600

***** Adopting port = /dev/ttyUSB0, baudrate = B921600

Set request success.

-f – filter config

Command	Value(First)	Value(Second)
-f	N/A	N/A
Description : Show filter config.		
Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -f		
Example : sudo ./bin/faro_can_sdk_deno -p /dev/ttyUSB0 -f		
Receive: test_cnt = 0, type = 2, port = 0, bank = 0, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 1, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 2, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 3, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 4, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 5, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 6, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 7, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 8, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 9, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 10, filterId = 0, filterMask = 0 test_cnt = 0, type = 2, port = 0, bank = 11, filterId = 0, filterMask = 3 test_cnt = 0, type = 2, port = 0, bank = 12, filterId = 0, filterMask = 2 test_cnt = 0, type = 2, port = 0, bank = 13, filterId = 0, filterMask = 1		

-w – filter config raw

Command	Value(First)	Value(Second)	Value(3)	Value(4)	Value(5)
-w	Filter type	Port	bank	mode	Filter ID
	Value(6)	Value(7)	Value(8)		
	Filter ID	Filter Mask	Filter		
	Filter Mask		Mask		

Description:

Set CAN bus controller filters configuration.

Syntax:

```
sudo ./bin/faro_can_sdk_demo -p <UART Device> -w <filter type> <port> <bank> <mode> <data1>
<data2> <data3> <data4>
```

<filter type>

Set raw can filter type

0 : ID Mask

1 : ID List

2 : Remove

3 : Reset

<port>

Set can port

0 : port 0

1 : port 1

<bank>

Set filter bank

Value 0 ~ 13

<mode>

Set CAN filter frames mode:

0 : 2.0A (Standard Format)

1 : 2.0B (Extended Format)

<data1>

Set filter data, if mode is 2.0A, this item is 4 byte data.

Set filter data, if mode is 2.0B, this item is 8 byte data.

ex : (2.0A) 0x1234

ex : (2.0B) 0x12345678

<data2>

Set filter data, if mode is 2.0A, this item is 4 byte data.

Set filter data, if mode is 2.0B, this item is 8 byte data.

ex : (2.0A) 0x5678
ex : (2.0B) 0x87654321

<data3>

Set filter data, mode is 2.0A, item is 4 byte data.

ex : (2.0A) 0x8765

<data4>

Set filter data, mode is 2.0A, item is 4 byte data.

ex : (2.0A) 0x4321

Example :

16bit

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -w 0 0 7 0 0x1234 0x5678 0x8765 0x4321
```

32bit

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -w 0 0 7 1 0x12345678 0x87654321
```

Receive:

Set filter success.

-x--get_filter_config

Command	Value(First)	Value(Second)
-x	Can Port value	Bank value

Description :

Get filter config.

Syntax:

```
sudo ./bin/faro_can_sdk_demo -p <UART Device> -x <port> <bank>
```

then SDK will response <filter type> to show raw can filter type

<filter type>

0 : ID Mask

1 : ID List

<port>

Set can port

0 : port 0

1 : port 1

<bank>

Set filter bank

Value 0 ~ 13

Example :

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -x 0 0
```

Receive:

set port = 0, bank = 0

type = 0, port = 0, bank = 0, mode = 5

filterId = 0x00000000, filterMask = 0x00000000

-r – Raw Can Demo

Command	Value(First)	Value(2 ~ 15)
-r	Raw CAN command.	Raw CAN command setting parameters
description: do Raw Can Demo, set command and parameter to run raw can demo function. Raw can Demo command value: 0 ~ 4.		
Command -r 0 Description: Read CAN data from CAN Port0 and CAN Port1. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -r 0		
Command -r 0 Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -r 0 Receive : Receive count = 1, port = 0, ID = 0x000007DF, data = 0x01 0x02 0x03 0x04 0x05 0x06 0x07 0x08		
Command -r 1 Description: Write CAN data function with 1 CAN data format. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -r 1 <port> <id> <can mode> <rtr> <dlc> <can data(byte 0~3)> <can data(byte4~8)> <interval time> <port> set port, 0 : port0 1 : port1 <id> Set Can data ID(4byte), ex: 0x000007DF		

<can mode>

Set CAN Data Frames Mode:

0 : 2.0A (Standard Format)

1 : 2.0B (Extended Format)

<rtr>

Set remote frame:

0 : rtr Disable

1 : rtr Enable

<dlc>

Set Can Data length code:

Value : 0 ~ 8

<can data(0~3)>

Set Can Data field byte 0 ~ byte 3:

ex: 0x01020304

<can data(4~7)>

Set Can Data field byte 4 ~ byte 7:

ex: 0x05060708

<interval time>:

interval time after sending, this parameter can use with demoAP command “-t” to set CAN format sending time, unit millisecond:

ex:100

Command -r 1 Example :

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -r 1 0 0x000007DF 0 0 8 0x01020304 0x05060708 100
```

Receive :

Send count = 1, port = 0, id = 0x000007DF, data = 0x01 0x02 0x03 0x04 0x05 0x06 0x07 0x08

Command -r 2 Description:

Write CAN data function with 2 CAN data format.

Syntax:

```
sudo ./bin/faro_can_sdk_demo -p <UART Device> -r 2 <format1 port> <format1 id>  
<format1 can mode> <format1 rtr> <format1 dlc> <format1 can data(byte 0~3)>  
<format1 can data(byte4~8)> <format2 port> <format2 id> <format2 can mode> <format2 rtr>  
<format2 dlc> <format2 can data(byte 0~3)> <format2 can data(byte4~8)> <interval time>
```

<format1 port>

set port,

0 : port0

1 : port1

<format1 id>

Set Can data ID(4byte),
ex: 0x000007DF

<format1 can mode>

Set CAN Data Frames Mode:
0 : 2.0A (Standard Format)
1 : 2.0B (Extended Format)

<format1 rtr>

Set remote frame:
0 : rtr Disable
1 : rtr Enable

<format1 dlc>

Set Can Data length code:
Value : 0 ~ 8

<format1 can data(0~3)>

Set Can Data field byte 0 ~ byte 3:
ex: 0x01020304

<format1 can data(4~7)>

Set Can Data field byte 4 ~ byte 7:
ex: 0x05060708

<format2 port>

set port,
0 : port0
1 : port1

<format2 id>

Set Can data ID(4byte),
ex: 0x000007DF

<format2 can mode>

Set CAN Data Frames Mode:
0 : 2.0A (Standard Format)
1 : 2.0B (Extended Format)

<format2 rtr>

Set remote frame:
0 : rtr Disable
1 : rtr Enable

<format2 dlc>

Set Can Data length code:
Value : 0 ~ 8

<format2 can data(0~3)>

Set Can Data field byte 0 ~ byte 3:

ex: 0x01020304

<format2 can data(4~7)>

Set Can Data field byte 4 ~ byte 7:

ex: 0x05060708

<interval time>:

interval time after sending, this parameter can use with demoAP command “-t” to set CAN format sending time, unit millisecond:

ex:100

Command -r 2 Example :

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -r 2 0 0x000007DF 0 0 8 0x01020304 0x05060708  
1 0x000007E8 0 0 8 0x08070605 0x04030201
```

Receive :

Send count = 1, port = 0, id = 0x000007DF, data = 0x01 0x02 0x03 0x04 0x05 0x06 0x07 0x08

Send count = 1, port = 1, id = 0x000007E8, data = 0x08 0x07 0x06 0x05 0x04 0x03 0x02 0x01

Command -r 3 Description:

Write can data function with 1 CAN data format and receive CAN data from CAN port0 and CAN port 1.

Syntax:

```
sudo ./bin/faro_can_sdk_demo -p <UART Device> -r 3 <port> <id> <can mode> <rtr> <dlc> <can  
data(byte 0~3)> <can data(byte4~8)> <interval time>
```

<port>

set port,

0 : port0

1 : port1

<id>

Set Can data ID(4byte),

ex: 0x000007DF

<can mode>

Set CAN Data Frames Mode:

0 : 2.0A (Standard Format)

1 : 2.0B (Extended Format)

<rtr>

Set remote frame:

0 : rtr Disable

1 : rtr Enable

<dlc>

Set Can Data length code:

Value : 0 ~ 8

<can data(0~3)>

Set Can Data field byte 0 ~ byte 3:

ex: 0x01020304

<can data(4~7)>

Set Can Data field byte 4 ~ byte 7:

ex: 0x05060708

<interval time>:

interval time after sending, this parameter can use with demoAP command “-t” to set CAN format sending time, unit millisecond:

ex:100

Command -r 3 Example :

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -r 3 0 0x000007DF 0 0 8 0x01020304 0x05060708 100
```

Receive :

Send count = 1, port = 0, id = 0x000007DF, data = 0x01 0x02 0x03 0x04 0x05 0x06 0x07 0x08

Receive count = 1, port = 0, ID = 0x000007DF, data =
0x01 0x02 0x03 0x04 0x05 0x06 0x07 0x08

Command -r 4 Description:

Write can data function with 2 CAN data format and receive CAN data from CAN port0 and CAN port 1.

Syntax:

```
sudo ./bin/faro_can_sdk_demo -p <UART Device> -r 4 <format1 port> <format1 id>  
<format1 can mode> <format1 rtr> <format1 dlc> <format1 can data(byte 0~3)>  
<format1 can data(byte4~8)> <format2 port> <format2 id> <format2 can mode> <format2 rtr>  
<format2 dlc> <format2 can data(byte 0~3)> <format2 can data(byte4~8)> <interval time>
```

<format1 port>

set port,

0 : port0

1 : port1

<format1 id>

Set Can data ID(4byte),

ex: 0x000007DF

<format1 can mode>

Set CAN Data Frames Mode:

0 : 2.0A (Standard Format)

1 : 2.0B (Extended Format)

<format1 rtr>

Set remote frame:

0 : rtr Disable

1 : rtr Enable

<format1 dlc>

Set Can Data length code:

Value : 0 ~ 8

<format1 can data(0~3)>

Set Can Data field byte 0 ~ byte 3:

ex: 0x01020304

<format1 can data(4~7)>

Set Can Data field byte 4 ~ byte 7:

ex: 0x05060708

<format2 port>

set port,

0 : port0

1 : port1

<format2 id>

Set Can data ID(4byte),

ex: 0x000007DF

<format2 can mode>

Set CAN Data Frames Mode:

0 : 2.0A (Standard Format)

1 : 2.0B (Extended Format)

<format2 rtr>

Set remote frame:

0 : rtr Disable

1 : rtr Enable

<format2 dlc>

Set Can Data length code:

Value : 0 ~ 8

<format2 can data(0~3)>

Set Can Data field byte 0 ~ byte 3:

ex: 0x01020304

<format2 can data(4~7)>

Set Can Data field byte 4 ~ byte 7:

ex: 0x05060708

<interval time>:

interval time after sending, this parameter can use with demoAP command “-t” to set CAN format sending time, unit millisecond:

ex:100

Command -r 4 Example :

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -r 4 0 0x000007DF 0 0 8 0x01020304 0x05060708  
1 0x000007E8 0 0 8 0x08070605 0x04030201
```

Receive

Send count = 1, port = 0, id = 0x000007DF, data = 0x01 0x02 0x03 0x04 0x05 0x06 0x07 0x08

Send count = 1, port = 1, id = 0x000007E8, data = 0x08 0x07 0x06 0x05 0x04 0x03 0x02 0x01

Receive count = 1, port = 0, ID = 0x000007DF, data =

0x01 0x02 0x03 0x04 0x05 0x06 0x07 0x08

Receive count = 1, port = 1, ID = 0x000007DF, data =

0x01 0x02 0x03 0x04 0x05 0x06 0x07 0x08

-j – j1939 Demo

Command	Value(First)	Value(2 ~ 14)
-j	J1939_test.	J1939 command setting parameters
description: do J1939 Demo. J1939 Demo command value: 0 ~ 1.		
Command -j 0 Description: Read data from CAN Port0 and CAN Port1. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -j 0		
Command -j 0 Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -j 0 Receive : Can port 0 receive= 1 J1939 read size = 16 id = 0x18FEF100 p = 0x06 dp = 0x00 pf = 0xFE ps = 0xF1 sa = 0x00 pgn= 0xFE1 dlc = 0x08 data[0] = 0xFF data[1] = 0x64 data[2] = 0x00 data[3] = 0xFF data[4] = 0xFF data[5] = 0xFF data[6] = 0xFF data[7] = 0xFF		
Command -j 1 Description: Write J1939 data function. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -j 1 <port> <pgn> <dlc> <j1939 data1> <j1939 data2>		

<port>

set port,

0 : port0

1 : port1

<pgn>

Set J1939 data Parameter Group Number (PGN):

ex : 0xFEf1

<dlc>

Set Can Data length code:

Value : 0 ~ 8

<j1939 data(1)>

Set J1939 Data field byte0 ~ byte3

ex: 0x11223344

<j1939 data(2)>

Set j1939 Data field byte4 ~ byte7

ex: 0x55667788

Command -j 1 Example :

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -j 1 0 0x18FEf100 8 0x11223344 0x55667788
```

Receive :

Can port 0 receive= 1

J1939 read size = 16

id = 0x18FEf100

p = 0x06

dp = 0x00

pf = 0xFE

ps = 0xF1

sa = 0x00

pgn= 0xFEf1

dlc = 0x08

data[0] = 0xFF

data[1] = 0x64

data[2] = 0x00

data[3] = 0xFF

data[4] = 0xFF

data[5] = 0xFF

data[6] = 0xFF

data[7] = 0xFF

-t – test cnt

Command	Value(First)	Value(Second)
-t	Set loop test time value	N/A
Description: Set counter for test loop.		
Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> <DemoAP command> -t <count> <DemoAP command> Set Demo Option: Value : according -h -- help description <count> Set Demo or test loop count: Value : counter value		
Example : sudo ./bin/faro_can_sdk_demo -p <UART Device> -g -t 10 Receive: get FW count = 1, can_fw_ver: 04.01.10.20.14 get FW count = 2, can_fw_ver: 04.01.10.20.14 get FW count = 3, can_fw_ver: 04.01.10.20.14 get FW count = 4, can_fw_ver: 04.01.10.20.14 get FW count = 5, can_fw_ver: 04.01.10.20.14 get FW count = 6, can_fw_ver: 04.01.10.20.14 get FW count = 7, can_fw_ver: 04.01.10.20.14 get FW count = 8, can_fw_ver: 04.01.10.20.14 get FW count = 9, can_fw_ver: 04.01.10.20.14 get FW count = 10, can_fw_ver: 04.01.10.20.14		

-u – get UART baud rate can speed

Command	Value(First)	Value(Second)
-u	N/A	N/A
Description: Get module value of UART baud rate, can speed, module active mode,J1708 mode, j1708 retry cent count.		
Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -u the module will receive data <UART Baud rate value> <Port0 and Port1 Can speed> <Port0 and port1 Can Mode> <J1708 Mode> <J1708 Retry count> <request time> <UART Baud rate value> Receive UART Baud rate value 0 : 115200 1 : 230400 2 : 460800 3 : 512000 4 : 921600 <Port0 and Port1 Can speed> Receive UART Baud rate value 0 : 1M 1 : 800k 2 : 500k, 3 : 250k 4 : 200k 5 : 125k <Port0 and port1 Can Mode> Receive CAN mode value 0 : RawCan 1 : OBD2 2 : J1939 3 : J1708_27byte		

4 : Can2ADR_OBD2

5 : CAN2ADR_J1939

8 : J1708_21byte

9 : J1708_OFF

<J1708 Mode>

Receive J1708 mode value

3 : J1708_27byte

8 : J1708_21byte

9 : J1708_OFF

<J1708 Retry count>

Receive J1708 send error retry count

Value : 1 ~ 255

<request time>

Receive request time, unit millisecond

Value : 1 ~ 100 ms

Example :

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -u
```

Receive:

UART BaudRate = 921600.

Port0 Can Speed = 250k Bits/s.

Port1 Can Speed = 250k Bits/s.

Port 0 Can Mode = 0,

Port 1 Can Mode = 0,

J1708 Mode = 0,

J1708 retry cnt count = 0,

request time = 0.

-U – set UART baud rate

Command	Value(First)	Value(Second)
-U	Set UART value	N/A
Description: Set UART baud rate. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -U <UART Baud rate value> <UART Baud rate value> Set module UART baud rate: 0 : 115200 1 : 230400 2 : 460800 3 : 512000 4 : 921600		
Example sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -U 0		
Receive: Calling AZ_VC_UART_Config success.		

-S – store configuration/factory reset

Command	Value(First)	Value(Second)
-S	Store config command	N/A
Description: Store module config. Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -S <Store config command> <Store config command> Set Store config command: 1 : Store system configuration. 2 : Factory reset.		
Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -S 1 Receive: Save config success.		

-v-- SDK version

Command	Value(First)	Value(Second)
-v	N/A	N/A
Description: Get SDK version.		
Syntax sudo ./bin/faro_can_sdk_demo -p <UART Device> -v		
Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -v		
Receive: Version v5.0.2		

-7 – J1708_21byte Demo

Command	Value(First)	Value(2 ~ 9)
-7	J1708_21byte demo command	J1708 21byte command setting parameters
description: Do J1708 21 byte Demo. Set command and parameter to run J1708 demo function.		
Command -7 0 Description: Read J1708 21 byte data.		
Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -7 0		
Command -7 0 Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -7 0		
Receive : cnt = 1;		
Command -7 1 Description: Write J1708 21 byte data function.		
Syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -7 1 <mid> <priority> <dlc> <4/19 data1> <4/19 data2> <4/19 data3> <4/19 data4> <3/19 data5>		

<mid>

Set J1708 data format MID:

Value 0x00 ~ 0xFF.

<priority>

Set J1708 data format priority:

Value 1 ~ 8.

<dlc>

Set J1708 data format data length code(DLC):

Value 0x00 ~ 0x13.

<4/19 data1>

Set J1708 data format data byte 0 ~ byte 3:

Ex : 0x01020304.

<4/19 data2>

Set J1708 data format data byte 4 ~ byte 7:

Ex : 0x05060708.

<4/19 data3>

Set J1708 data format data byte 8 ~ byte 11:

Ex : 0x090A0B0C.

<4/19 data4>

Set J1708 data format data byte 12 ~ byte 15:

Ex : 0x0D0E0F10.

<3/19 data5>

Set J1708 data format data byte 16 ~ byte 18:

Ex : 0x111213FF.

Command -7 1 Example :

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -7 1 0x82 0x01 0x13 0x01020304 0x05060708  
0x090A0B0C 0x0D0E0F10 0x111213FF
```

Receive:

```
cnt = 1;
```

Command -7 2 Description:

Write J1708 21 byte filter config function.

Syntax:

```
sudo ./bin/faro_can_sdk_demo -p <UART Device> -7 2 <type> <mid>
```

<type>

Set J1708 filter command:

0x01 : set filter.

0xFF : reset filter.

<p><mid></p> <p>Set J1708 data format MID:</p> <p>Value 0x00 ~ 0xFF.</p>
<p>Command -7 2 Example:</p> <pre>sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -7 2 0x01 0x82</pre> <p>Receive</p> <p>J1708 filter config</p>
<p>Command -7 3 Description:</p> <p>Get J1708 filter count.</p> <p>Syntax:</p> <pre>sudo ./bin/faro_can_sdk_demo -p <UART Device> -7 3</pre>
<p>Command -7 3 Example:</p> <pre>sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -7 3</pre> <p>Receive</p> <p>J1708 filter count = 1</p>
<p>Command -7 4 Description:</p> <p>Get J1708 filter.</p> <p>Syntax:</p> <pre>sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -7 4</pre>
<p>Command -7 4 Example:</p> <pre># sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -7 4</pre> <p>Receive</p> <p>J1708 filter count = 1</p> <p>filter[0] = 0x00000082</p>

-e-- ecompass

Command	Value(First)	Value(Second)
-e	Ecompass command	Ecompass command setting parameters
<p>description:</p> <p>Ecompass command</p>		
<p>Command -e 0 description:</p> <p>Set Accelerator Full Scale</p> <p>syntax:</p> <pre>sudo ./bin/faro_can_sdk_demo -p <UART Device> -e 0 <scale value></pre>		

<scale value>

set Accelerator Full Scale value

0 : 2

1: 4

2: 8

3: 16

Command -e 0 Example

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -e 0 0
```

Receive

Calling AZ_VC_set_accelerator done.

Command -e 1 description:

Get Accelerator Full Scale

syntax:

```
sudo ./bin/faro_can_sdk_demo -p <UART Device> -e 1
```

and module will receive <scale value>

<scale value>

get Accelerator Full Scale value

0 : 2

1: 4

2: 8

3: 16

Command -e 1 Example

```
sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -e 1
```

Receive

Calling AZ_VC_get_accelerator success

scale value = 2

-A-- Algorithm

Command	Value(First)	Value(Second)
-A	Algorithm command	Algorithm command value
Description : Algorithm command		
Command -A 0 description: Clear sensor algorithm syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -A 0		
Command -A 0 Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -A 0 Receive : Calling AZ_VC_clear_sensor_algorithm done		
Command -A 1 description: Set Forward, Backward Algorithm Enable or Disable syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -A 1 <switch> <switch> Set Forward, Backward Algorithm Enable or Disable 0 : Disable 1 : Enable		
Command -A 1 Example : sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -A 1 1 Receive: Calling AZ_VC_Set_F_B_Algorithm success.		

-k – read sku

Command	Value(First)	Value(Second)
-k	N/A	N/A
Description : Read module sku number syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -k the module will receive data <sku1> ~ <sku8>		
Example: sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -k Receive: Read sku success. Sku = . 4647393030FFFFFF		

-q – quiet mode

Command	Value(First)	Value(Second)
-q	N/A	N/A
Description : Set DemoAP no receive any data syntax: sudo ./bin/faro_can_sdk_demo -p <UART Device> -q		
Example: sudo ./bin/faro_can_sdk_demo -p /dev/ttyUSB0 -j 0 -q Receive: N/A		