

Firmware edits:

1. Normal helmet:

- a. Change the TOUCH_ENABLE value in HSA.h file
for normal helmet its 0
`#define TOUCH_ENABLE 0`



```
1 /** @file HSA.h
2  * @brief This file declares all MACROS, variables and struc
3
4 /** @brief MACRO for Touch Sensor
5  * for operator helmet its 1 and for normal helmet its 0 */
6 #define TOUCH_ENABLE 0
7
8 /** @brief MACRO defining GPIO connected to ATTINY */
9 #define ATTINY_GPIO 5
10 /** @brief MACRO for DW1000 Load Switch */
```

- b. Change Safmet UID in dev_id.h file



```
1 /** @file dev_id.h
2  * This file is also included in .gitignore as it varies for devices
3  * Please note that it must be manually created and unique values must be
4 byte dev_ID[4] = {0x00, 0x00, 0x11, 0xB4}; ///< Stores device ID in 4 bytes
```

Note: Take Safmet UID's from deployment sheet

File Edit View Insert Format Data Tools Extensions Help Last edit was yesterday at 6:39 PM									
100% £ % .0 .00 123 Inconsolata 11 B I S A									
B99	=DEC2HEX(SUM(HEX2DEC(B98),1))								
	A	B	C	D	E	F	G	H	
1	Helmet No.	Helmet Id	Helmet Id	Serial	Operator/Safemet	PCB	Date	Factory	
97	94	1162	0x0 0x0 0x11 0x62						
98	95	1163	0x0 0x0 0x11 0x63						
99	96	1164	0x0 0x0 0x11 0x64	001/004/00079	Safemet	V3	09/12/21	ITC BAD	
100	97	1165	0x0 0x0 0x11 0x65	001/004/00080	Safemet	V3	09/12/21	ITC BAD	
101	98	1166	0x0 0x0 0x11 0x66	001/004/00081	Safemet	V3	09/12/21	ITC BAD	
102	99	1167	0x0 0x0 0x11 0x67	001/004/00082	Safemet	V3	09/12/21	ITC BAD	
103	100	1168	0x0 0x0 0x11 0x68	001/004/00086	Safemet	V3	09/12/21	ITC BAD	
104	101	1169	0x0 0x0 0x11 0x69	001/004/00075	Safemet	V3	02/12/21	Commscope goa	
105	102	116A	0x0 0x0 0x11 0x6A	001/004/00076	Safemet	V3	02/12/21	Commscope goa	
106	103	116B	0x0 0x0 0x11 0x6B						
107	104	116C	0x0 0x0 0x11 0x6C	001/004/00077	Safemet	V3	02/12/21	Commscope goa	
108	105	116D	0x0 0x0 0x11 0x6D	001/004/00087	Safemet	V3	09/12/21	ITC BAD	
109	106	116E	0x0 0x0 0x11 0x6E	001/004/00083	Safemet	V3	09/12/21	ITC BAD	
110	107	116F	0x0 0x0 0x11 0x6F	001/004/00078	Safemet	V3	02/12/21	Commscope goa	
111	108	1170	0x0 0x0 0x11 0x70	001/004/00084	Safemet	V3	09/12/21	ITC BAD	
112	109	1171	0x0 0x0 0x11 0x71	001/004/00090	Safemet	V3	13/12/21	ITC BAD	
113	110	1172	0x0 0x0 0x11 0x72	001/004/00091	Safemet	V3	13/12/21	ITC BAD	
114	111	1173	0x0 0x0 0x11 0x73	001/004/00105	Safemet	V3	13/12/21	ITC BAD	
115	112	1174	0x0 0x0 0x11 0x74						

- c. To make the vibration motor ON/OFF do uncomment/comment respectively below the line in the receive.h file.
For normal helmets, the vibration motor is ON(you can OFF also as per client requirements).

```

Safmet - receive.h | Arduino 1.8.13
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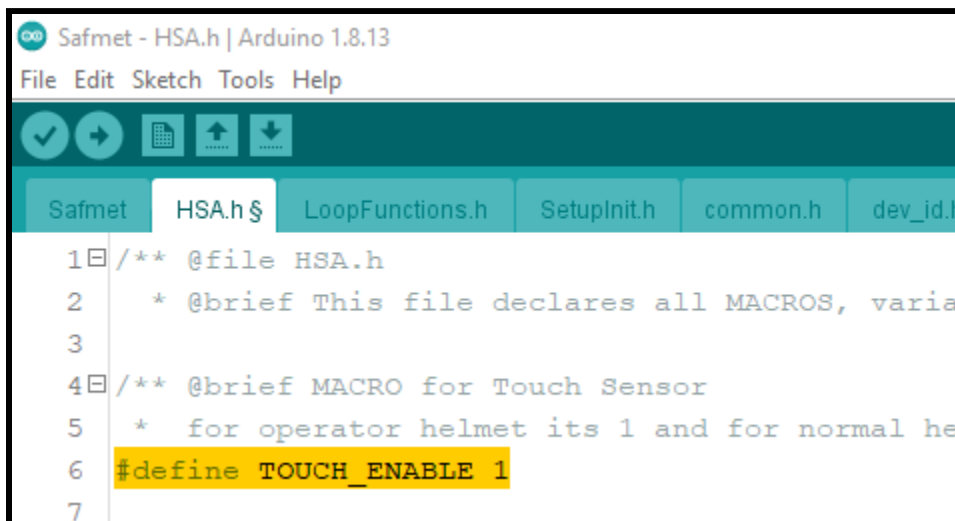
Safmet HSA.h LoopFunctions.h SetupInit.h common.h dev_id.h receive.h$ transmit.h

293 void handleRangeReportRx() {
294     //Serial.print(F("range:"));
295     if (!check_src_uid(source_UID)) return;
296     if (!check_dest_uid(destination_UID)) return;
297     float curRange;
298     memcpy(&curRange, data + 17, 4);
299
300     if (curRange < 8)
301     {
302         /*
303          * To Control the vibration motor please comment the below fi
304          */
305         digitalWrite(VIB_MOTOR, HIGH); // vibration motor//csk
306     }

```

2. Operator helmet:

- a. Change the TOUCH_ENABLE value in HSA.h file
For a Operator helmet its 1
#define TOUCH_ENABLE 1

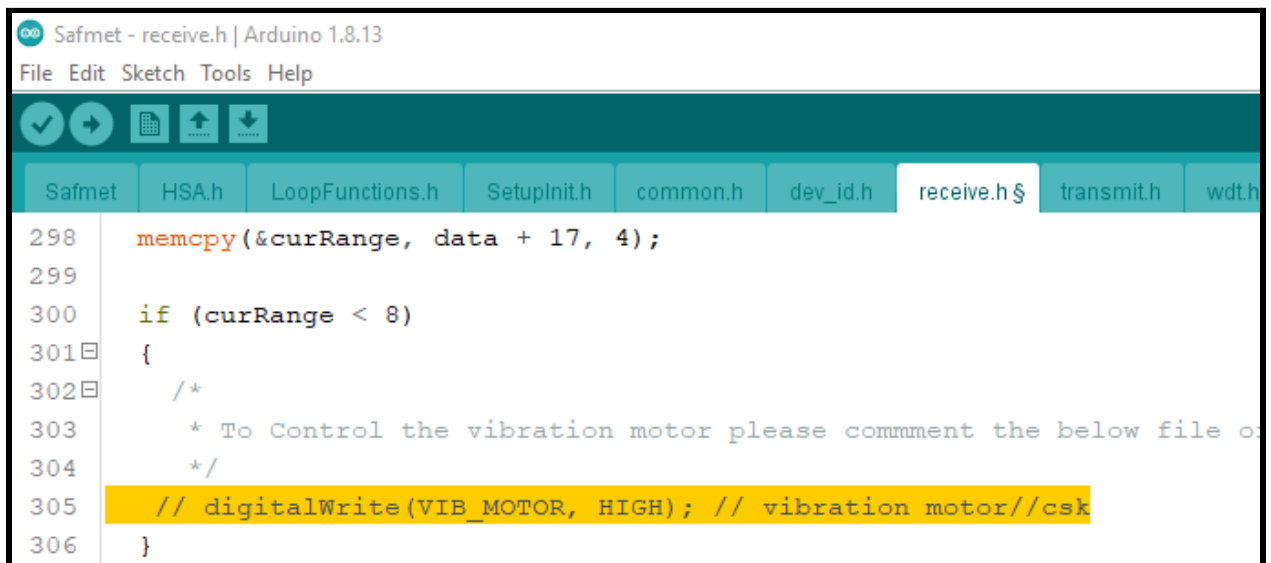


```
Safmet - HSA.h | Arduino 1.8.13
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Safmet HSA.h$ LoopFunctions.h SetupInith common.h dev_id.h

1 /** @file HSA.h
2  * @brief This file declares all MACROS, varia
3
4 /** @brief MACRO for Touch Sensor
5  * for operator helmet its 1 and for normal he
6 #define TOUCH_ENABLE 1
7
```

- b. Same as mentioned in normal helmets.
- c. To make the vibration motor ON/OFF do uncomment/comment respectively below the line in the receive.h file.
for operator helmets, make the vibration motor OFF.



```
Safmet - receive.h | Arduino 1.8.13
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Safmet HSA.h LoopFunctions.h SetupInith common.h dev_id.h receive.h$ transmith wdt.h

298 memcpy(&curRange, data + 17, 4);
299
300 if (curRange < 8)
301 {
302 /*
303  * To Control the vibration motor please comment the below file of
304  */
305 // digitalWrite(VIB_MOTOR, HIGH); // vibration motor//csk
306 }
```