

ESICD(Electronic Signal Interface Control Document)

- 전체 인터페이스 공통 적용 사항

- SOF 및 EOF

- SOF(Start of Frame): 0x04
 - EOF(End of Frame): 0xFA

- Desination Code

- Control PC : 0xFD
 - HX711 : 0x00
 - MQ-5 : 0x01
 - MQ-7 : 0x02
 - RFID_Outside : 0x03
 - RFID_Inside : 0x13
 - Remote Control : 0x04
 - Buzzer : 0x05
 - LM35 : 0x06
 - Sound : 0x07
 - PIR : 0x08
 - IMU : 0x09
 - LED/CDS : 0x0A

- CRC Rule: N/A

1. HX711 Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x00
Destination	1	unsigned char	0xFD
Data	4	float	(무게 측정 데이터)

EOF	1	unsigned char	0xFA
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2. MQ-5 Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x01
Destination	1	unsigned char	0xFD
Data	4	float	(센서 측정 데이터)
EOF	1	unsigned char	0xFA

3. MQ-5 Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x02
Destination	1	unsigned char	0xFD
Data	4	float	(센서 측정 데이터)
EOF	1	unsigned char	0xFA

4. RFID_Outside Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x03
Destination	1	unsigned char	0xFD
Data	4	float	(센서 측정 데이터)

EOF	1	unsigned char	0xFA
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5. RFID_Inside Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x13
Destination	1	unsigned char	0xFD
Data	4	float	(센서 측정 데이터)
EOF	1	unsigned char	0xFA

6. Remote Control Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x04
Destination	1	unsigned char	0xFD
Data	4	unsigned int 32	(리모컨 동작 명령)
EOF	1	unsigned char	0xFA

7. Buzzer Command

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0xFD
Destination	1	unsigned char	0x05
Data	4	Unsigned int 32	(Buzzer 동작 여부)

EOF	1	unsigned char	0xFA
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8. LM35 Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x06
Destination	1	unsigned char	0xFD
Data	4	float	(온도 데이터)
EOF	1	unsigned char	0xFA

9. Sound Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x07
Destination	1	unsigned char	0xFD
Data	4	float	(소리 센서 동작 데이터)
EOF	1	unsigned char	0xFA

10. PIR Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x07
Destination	1	unsigned char	0xFD
Data	2	unsigned int 16	(PIR 동작 구역 데이터)
EOF	1	unsigned char	0xFA

11. IMU Response

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0x07
Destination	1	unsigned char	0xFD
Acc_X	2	int 16	(X축 가속도)
Acc_Y	2	int 16	(Y축 가속도)
Acc_Z	2	int 16	(Z축 가속도)
Gyro_X	2	int 16	(X축 자이로[Phi])
Gyro_Y	2	int 16	(Y축 자이로 [Theta])
Gyro_Z	2	int 16	(Z축 자이로[Psi])
Temperature	2	int 16	(온도 데이터)
EOF	1	unsigned char	0xFA

12. LED Command

Name	Byte	Data Type	Data
SOF	1	unsigned char	0x04
Source	1	unsigned char	0xFD
Destination	1	unsigned char	0x0A
Data	2	unsigned int 16	(LED 동작 명령)
EOF	1	unsigned char	0xFA