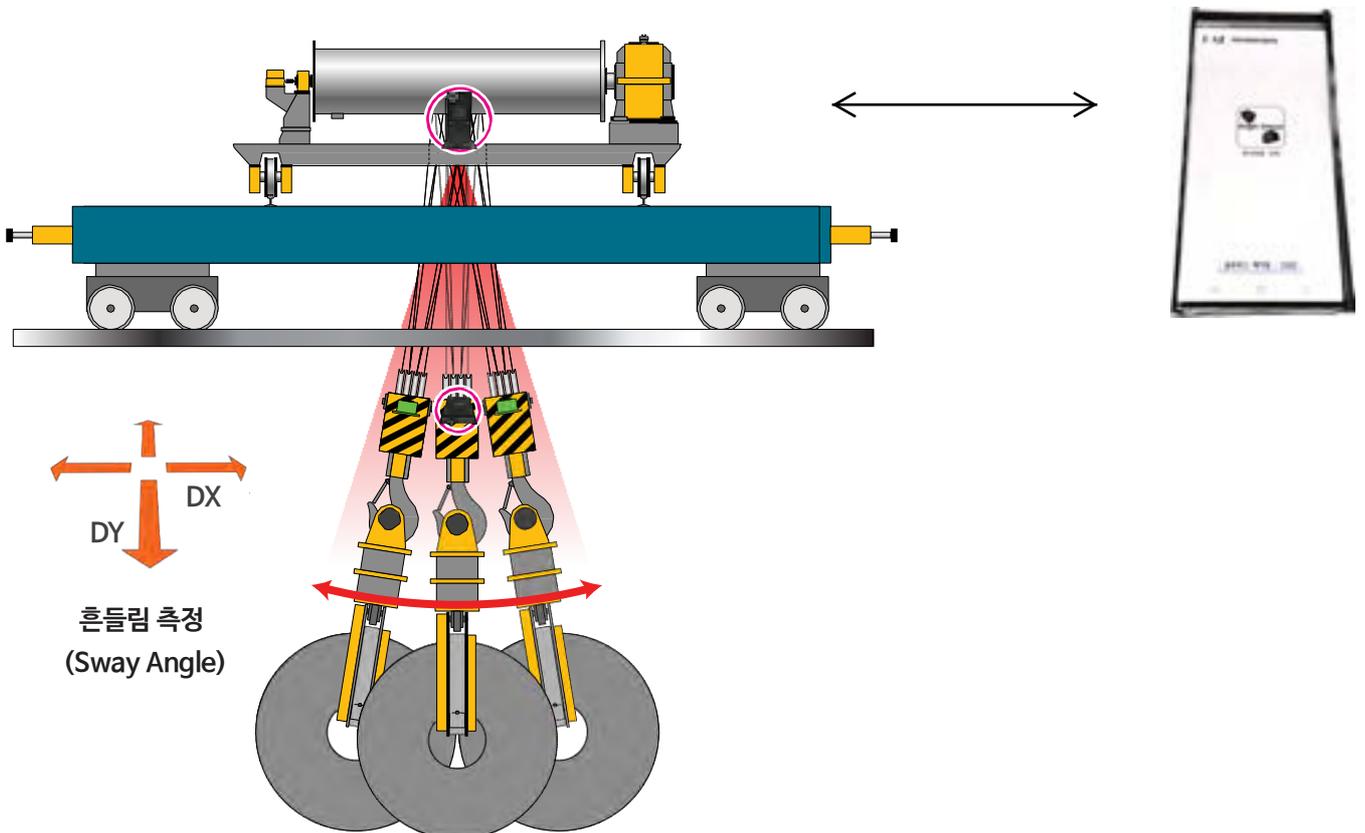


ANGLE SENSOR



Angle Sensor

1. Angle Sensor는 옥외 사용이 가능하며 햇빛 및 조명에 의한 오류가 없다.
2. 비컨의 4개 LED 중 1개의 IR-LED가 오염되거나 고장이 나더라도 나머지 3개의 LED 만으로도 인식하여 감지가 가능하도록 알고리즘
3. 비컨의 4개 LED가 각각의 전원을 사용하여 LED 1개가 고장나더라도 다른 LED 동작에 영향을 주지 않도록 회로가 구성
4. 비컨의 LED 제어에 사용된 드라이버는 산업용 환경에 강한 특성
5. Angle Sensor와 비컨 사이의 거리를 측정해주어 END LIMIT 센서나 중추리미트 센서의 고장판단에도 사용
6. Angle Sensor는 기본적으로 RS422 시리얼 통신을 채택
7. Angle Sensor에 블루투스 통신을 추가하여 가까운 거리에서 안드로이드 스마트폰 앱을 이용하여 모니터링 할 수 있도록 구성
8. Angle Sensor는 DC 전원의 역전압 방지 회로가 추가





Angle Sensor



Angle Sensor



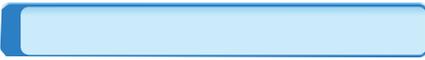
Beacon

- Angle Sensor Beacon
- Beacon LED 4

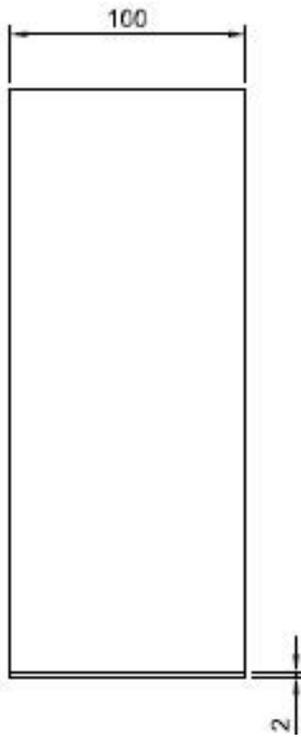
	Angle sensor	Beacon
Model	WJ-LTS16-S	WJ-RMQ100
Power	DC10~27V, 0.2A	AC85~265V, 50~60Hz, 0.1A
Operatuing Temperature	-20 ~ +70°C	
Weight	2.5Kg	0.8Kg
Dimension	168(W)X100(D)X250(H)	148(W)X100(D)X56(H)

LED LAMP

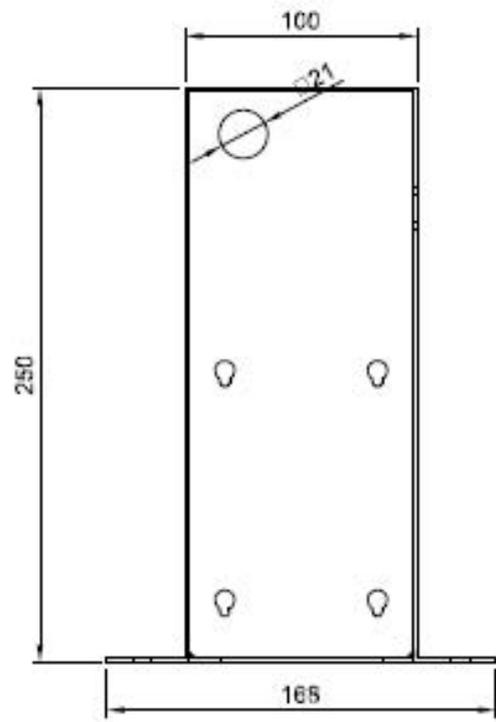
1. X : -6~+6 (10M)
 2. Y : -8~+8 (10M)
 3. Z : 1 ±50mm, 15 ±500mm
 4. twist : ±45 ~ ±45
 5. : 15
 6. : 0.8 ~30
 7. : -20 ~70
1. Power Red LED : ON
2. State Green LED : Beacon ON, Beacon OFF.



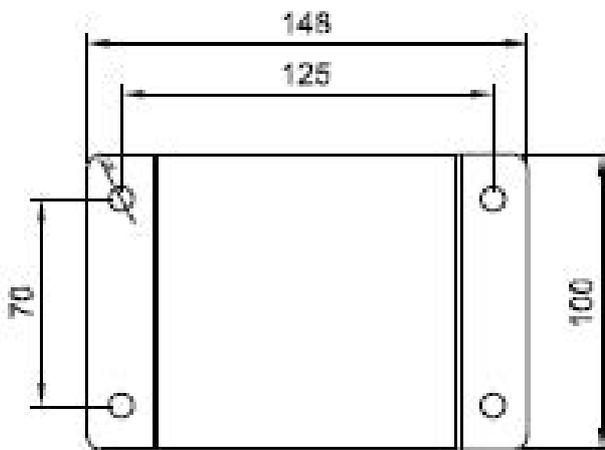
P24	N24	TX+	TX-	SP	SP
-----	-----	-----	-----	----	----



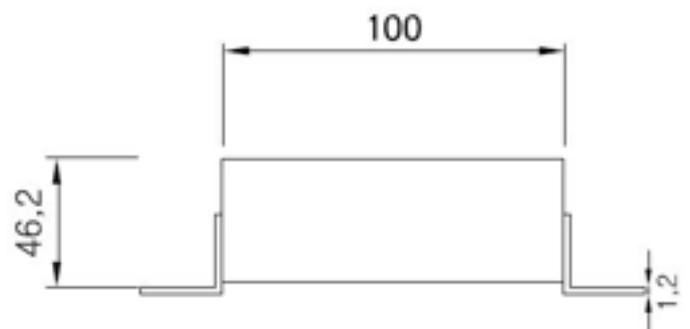
Left



Front



Top



Front



Angle Sensor



Angle Sensor



Beacon

Configuration

- Angle Sensor Beacon
- Beacon Sensor LED 4

Specifications

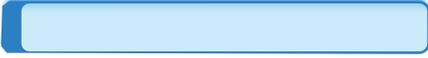
	Angle sensor	Beacon
Model	WJ-PLT16-S	WJ-PRM100
Power	DC10~27V, 0.5A	X
Operating Temperature	-20 ~ +70°C	
Weight	2.7Kg	0.3Kg
Dimension	168(W)X100(D)X250(H)	148(W)X100(D)X56(H)

Accuracy

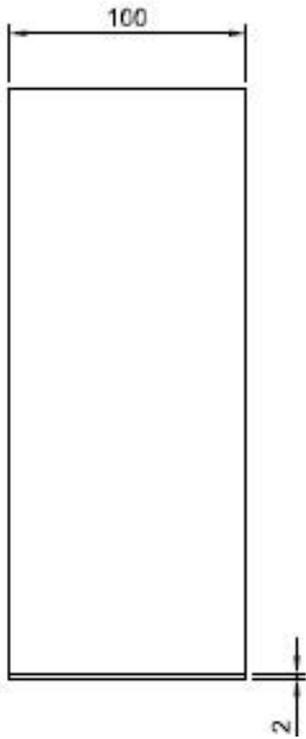
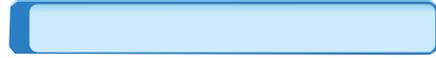
- X : -6~+6 (10M)
- Y : -8~+8 (10M)
- Z : 1 ±50mm, 15 ±500mm
- twist : ±45 ~ ±45
- : 15
- : 0.8 ~15

LED LAMP

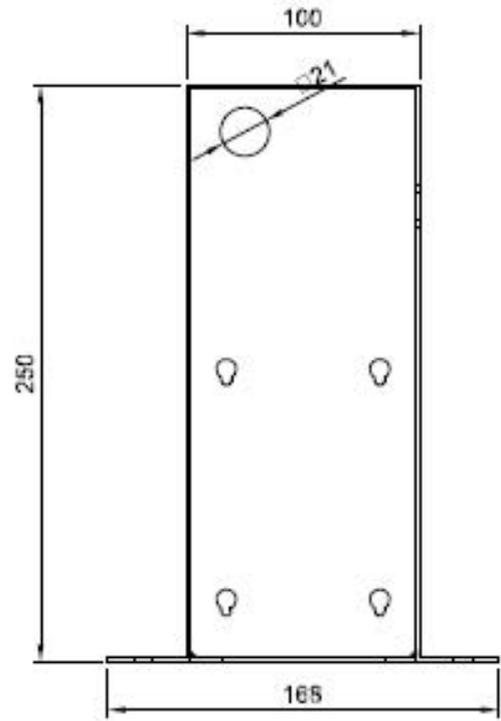
- Power Red LED : ON
- State Green LED : Beacon ON, Beacon OFF.



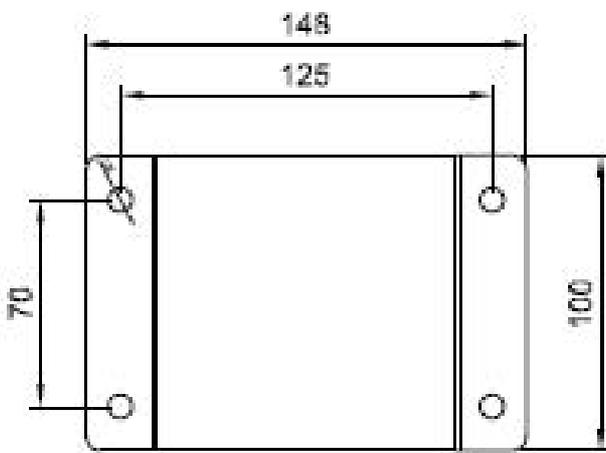
P24	N24	TX+	TX-	SP	SP
-----	-----	-----	-----	----	----



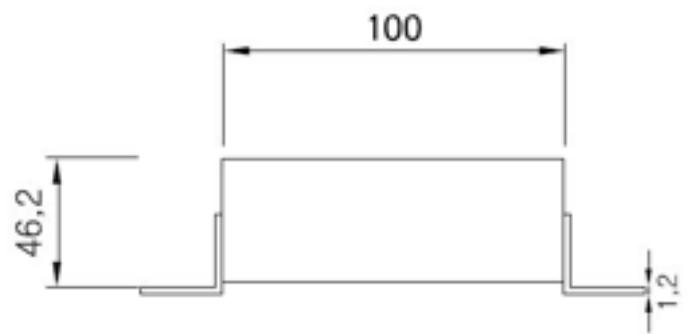
Left



Front



Top



Front

Angle Sensor

1.

- Baud rate 9600
- 8 data bit
- No parity
- 1 stop bit
- 15
- RS422

2. Date Format

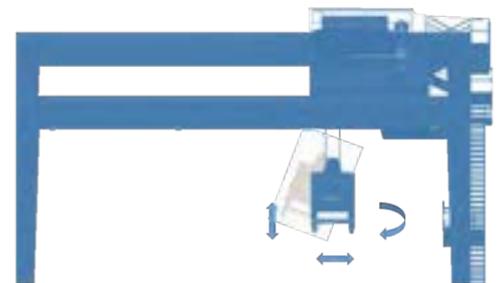
상태	X축 (1000 = 1°)	Y축 (1000 = 1°)	Z축	TWIST	BCC	LF	CR
1 byte	2 byte	2 byte	2 byte	2 byte	1 byte	1 byte	1 byte

- : 0x00 : , 0x01 : [RM-IR]
- X , Y : 1000 1 -2388 -2.388
- Z : 1 1mm 8555 8555mm .
- TWIST () : 100 1 -324 -3.24
- BCC : , X , Y , Z , TWIST
- LF : Line Feed [0X0A]
- CR : Carriage Return [0X0D]

BCC 체크 프로그램 예시

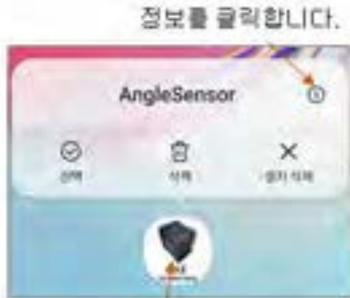
```
int BCC(char *Msg, int Len)
{
    signed char bcc = 0x00;
    int iloop,jloop;
    for (iloop = 0; iloop < Len; iloop++ )
        for(jloop = 0; jloop < 8; jloop++ )
            if(Msg[iloop]>>jloop & 0x01)
                bcc++;
    return = bcc;
}

void main(void)
{
    if(rcv_buf[9]==BCC(rcv_buf, 9)) rcv_data_real=1;// 데이터 수신 정상
    else rcv_data_real=0;//데이터 수신 이상 - 수신 데이터 처리하지 않음.
}
```



Angle Sensor

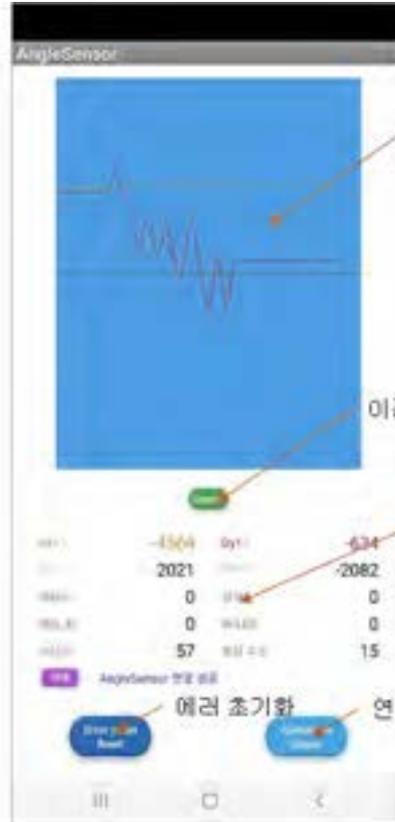
앱 링크 : https://play.google.com/store/apps/details?id=appinventor.ai_lksparkeng.AngleSensor&pli=1



앱 설치 후 아이콘을 길게 누르면 그림과 같이 정보를 볼 수 있습니다.



허용되지 않은 권한 중 근처 기기를 선택하고 허용합니다.



| 제 | 조 | 원 |



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