

# IR Distance Measuring Sensor



## Features

- based on reliable sharp GP2D12
- Less influence on the color of reflective objects.
- Detecting distance : 10 - 80 cm
- External control circuit is unnecessary
- Low cost

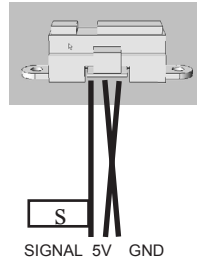
## Specification

- Supply Voltage : -0.3 to +7 V
- Output Terminal Voltage : -0.3 to +0.3 V
- Operating Temperature : -10 to +60 °C
- Storage Temperature : -40 to +70 °C
- Operating Supply Voltage : 4.5 to 5.5 V
- Measuring distance range : 10 - 80 cm
- Average supply current : 50 mA

## Caution

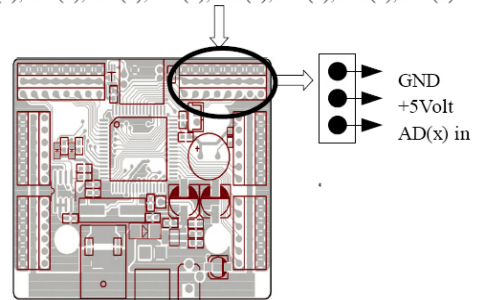
- please connect properly.
- only for 10-80cm range usable.
- for 0 - 10 cm, it returns garbage value back.
- up to 10% tolerance possible

## 1. Connection



AD0 - robobasic-> AD(0)  
 AD1 - robobasic-> AD(1)  
 ....  
 AD7 - robobasic-> AD(7)

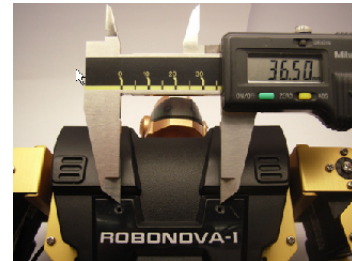
AD(0), AD(1), AD(2), AD(3), AD(4), AD(5), AD(6), AD(7)



## 2. Mount/Installation

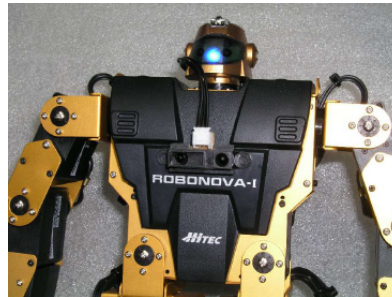


Ø 1.8mm



Ø 1.8mm

>36.5mm<



## 3. Usage



Gp2d12\_val = ca. 80 <--> ca. 10 >?!#?!\$<

### Code Example :

```

` calculation of measured value to metric distance in cm
` from Joerg Pohl, roboter-teile.de

DIM Gp2d12_val AS INTEGER

Read_gp2d12:
Gp2d12_val = AD (6) ` 6 here depends on AD port connection

IF Gp2d12_val < 4 THEN Gp2d12_val = 4 `Minimum setting
Gp2d12_val = Gp2d12_val - 3
Gp2d12_val = 6787 / Gp2d12_val
IF Gp2d12_val > 100 THEN Gp2d12_val = 0 `limit

RETURN
  
```

