

# IR compound eye

## Assembly Instructions:

1. Install the resistors and 7 pin header first.
2. Install the 4 IR LEDs (clear colour) in the center. Be careful of their polarity.
3. Install the PN100 transistor.
4. Install the 8 IR phototransistors (black colour).

## Calibration: (should be done at night to reduce ambient IR from sunlight).

1. Connect to 1 digital output and 4 analog inputs of your micro controller.
2. Write code to make digital output high and display analog inputs.
3. Place small pieces of heatshrink (about 3mm wide) on IR LEDs.
4. With sensor facing away from all objects, adjust position of heatshrink so all reading are similar.
5. Place a white object 100mm away from all sensors. Adjust heatshrink if required.
6. When calibrated gently heat the heatshrink so it maintains position on LEDs.

