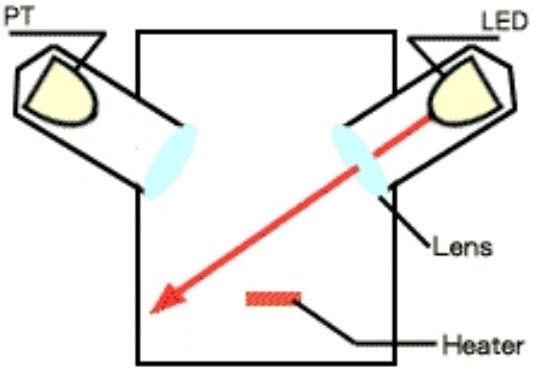
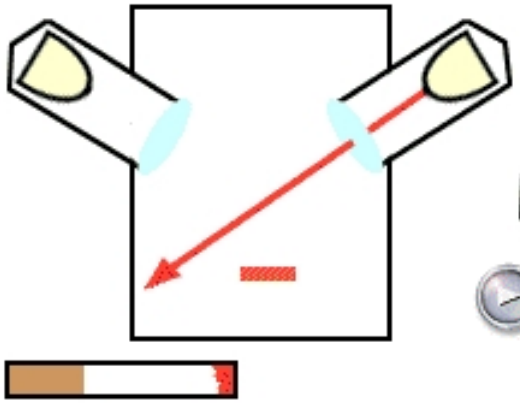
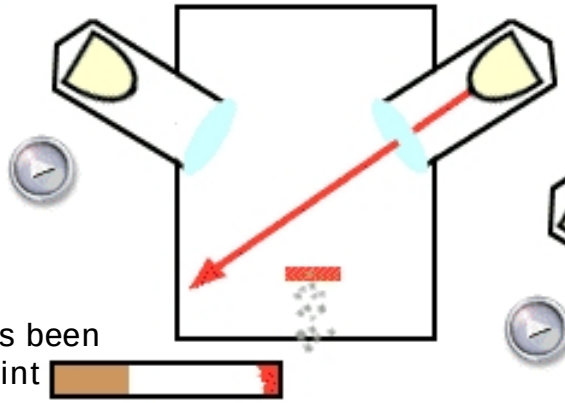
How It Works



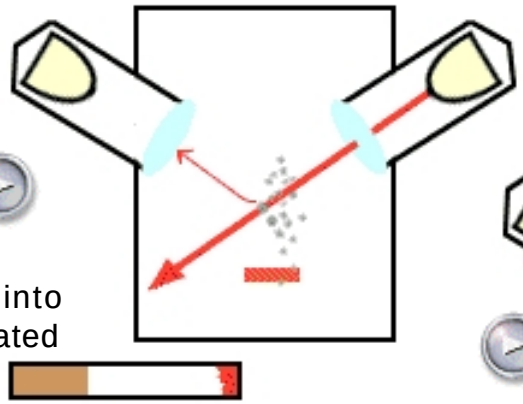
Light emitter : LED
Light receptor : Photo Transistor
Lens : both for emitter and receptor
Heater : Resistor to generate" Updraft"



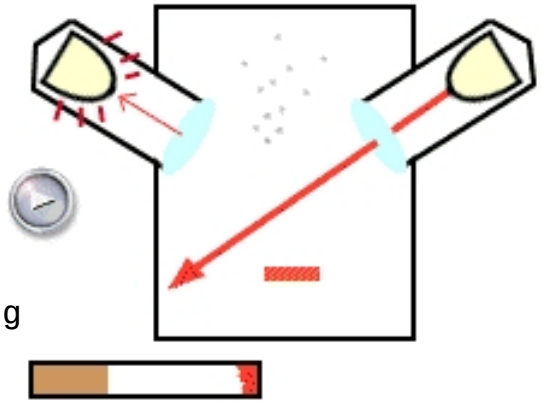
Resistor generating updraft.
Infrared light beam from LED has been focused with Lens to sensing point at the center.



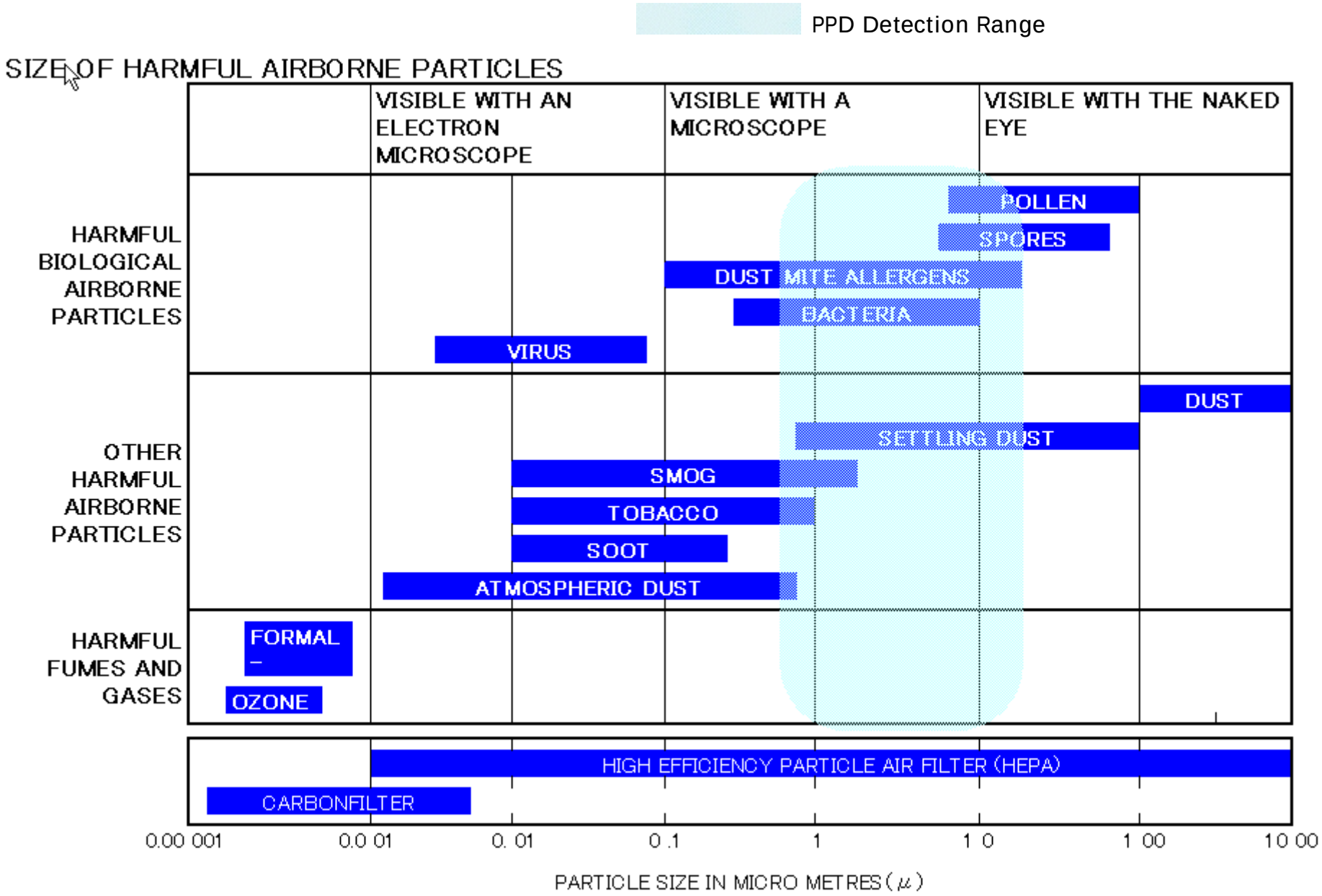
Airborne particles have been taken into the sensor box with the updraft created by resistor's heat.



Particle passing through sensing point scatters light.



Receptor (Photo transistor) receive scatterec light through the lens and transformed into pulse signal. Pulse signal are to be converted into voltage output.


PPD Detection Range
SIZE OF HARMFUL AIRBORNE PARTICLES
VISIBLE WITH AN ELECTRON MICROSCOPE
VISIBLE WITH A MICROSCOPE
VISIBLE WITH THE NAKED EYE
HARMFUL BIOLOGICAL AIRBORNE PARTICLES
POLLEN
SPORES
DUST MITE ALLERGENS
BACTERIA
VIRUS
OTHER HARMFUL AIRBORNE PARTICLES
DUST
SETTLING DUST
SMOG
TOBACCO
SOOT
ATMOSPHERIC DUST
HARMFUL FUMES AND GASES
FORMAL
OZONE
HIGH EFFICIENCY PARTICLE AIR FILTER (HEPA)
CARBONFILTER
0.00 001
0.0 01
0. 01
0 .1
1
1 0
1 00
10 00
PARTICLE SIZE IN MICRO METRES (μ)