

## Making Instruments and Simple Observation of Infrared, visiblelight, Ultra Violet.

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In recent years, along with the remarkable progress of small information terminals such as cellular phones, various sensors have come to be provided at low cost miniaturized.

In addition, to improve the degree of integration, even introductory of making electronic tools has been difficult , the hurdle has fallen by developpment of one-chip microcomputer. And they are, in the recent progress in the development of environment it is possible to draw on advanced observation equipment in the degree of difficulty of about plastic model.

This is one of the microcomputer boards that are most popular, in Arduino, using some of the sensor kit, so went the simple observation of as extra goal of student experiment, to introduce it.

Use the microcomputer board Arduino UNO,with Adafruit of Ultra Violet sensor, Color sensors, and infrared sensor using the MLX90614.

As a result of these observations

1)Ultraviolet rays, that air and greatly attenuated by clouds, reflection by the ground and buildings is relatively large of our image.

2)And Using the visible light observation, it is likely possible to mesure cloud cover by utilizing the difference in color of the blue sky.

3)In the infrared, it is known being able to observe the height of cloud bottom. This time we observe in bluesky, it has been found the possiblity to observe the aerosol.

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