Thermographic imaging

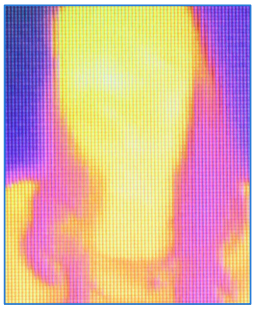
Apparatus

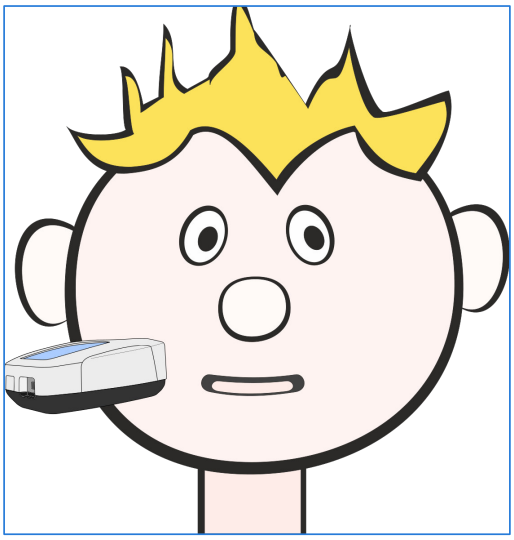
- An infra red sensor with range set to irradiance range.
- Drawn outline of face.
- Coloured pencils.

Data recording setup.

Set the display to show Numeric

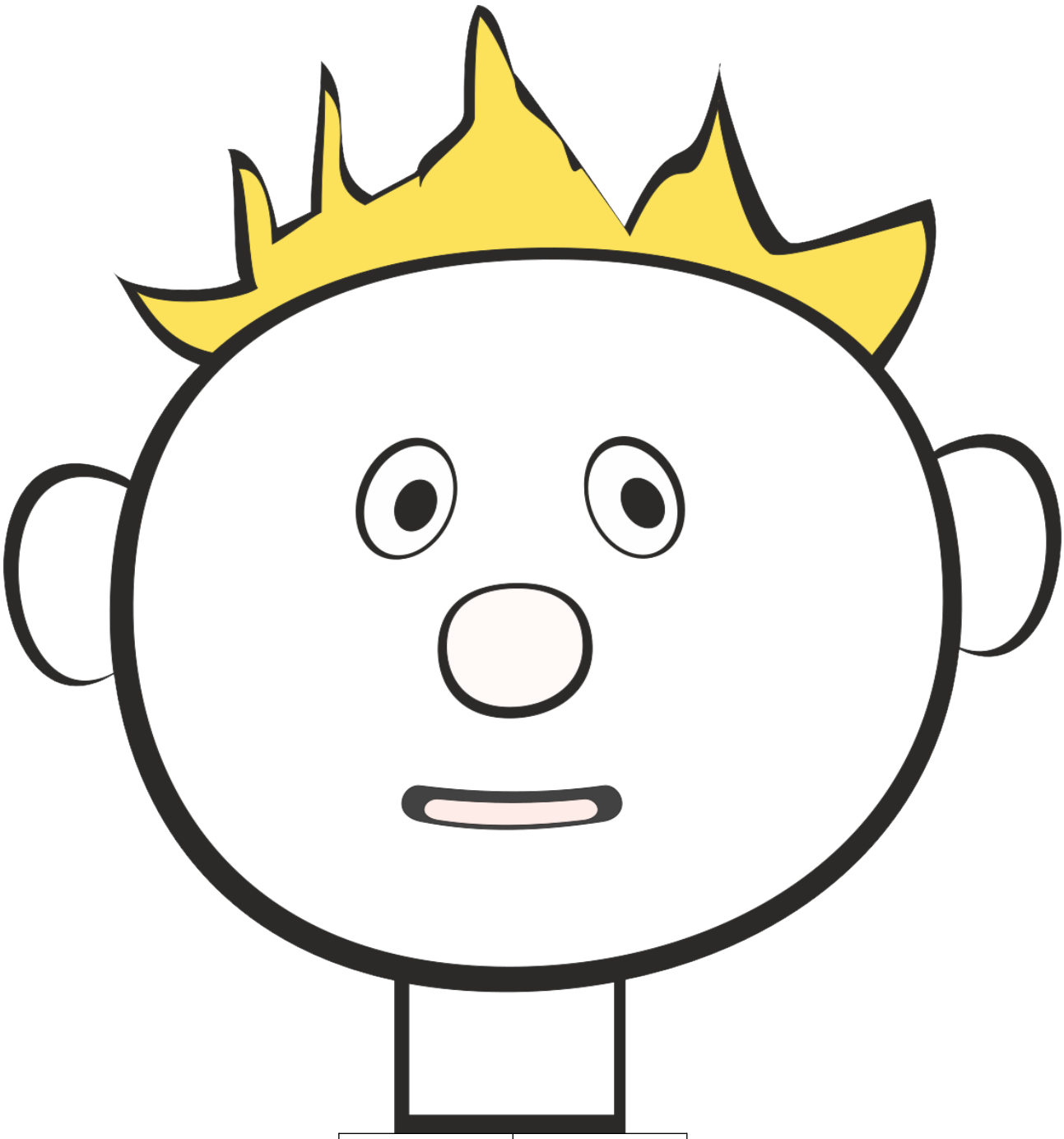
You may have seen images of people taken with special infrared cameras. In the image, areas of the body come out different colours; each colour represents the heat coming out of the body. Normally white is used to show the hottest parts and blue / black to show the coldest parts. In this experiment you will use an Infrared sensor to measure the heat coming off your face, you will then use a colour to match the heat measured and colour a face to make an infrared image (this is called false colour imaging).





Method

1. Work in an area that is not getting a lot of heat from the sun or radiator.
2. Connect the Infrared sensor to the software on your bluetooth enable device.
3. Change the range to Irradiance.
4. Change the display to a numeric display.
5. Select Start to display data in the Numeric display.
6. Point the sensor at an object to see how quickly the sensor responds, this will give you an idea of how long you need to point it at an area of the face together a good reading.
7. Use your face outline to work out which areas of the face you will measure and in which order. It may help to make a 2 column key for you to enter the numbers from the sensor against the area of the face being tested.
8. Point the sensor to the first area of the face to measure, wait until the readings are settled and note them down.
9. Work out a colour scheme to produce the infrared image using the maximum and minimum collected values. Allocate a colour to each value and colour the face in.



Range / value	Colour