

## Lecture 4: Images

### Exercises

1. Write a sketch which shows a picture of your face moving around the display area. Make it so that it is impossible for the user to click on your face.
2. Write a sketch in which one image is placed on top of another one and the top image gradually fades to reveal the one underneath.
3. Write a sketch in which an image is displayed. Make it so that the image glows in the region surrounding the position of the mouse.
4. Write a sketch which shows all the thin vertical bars in an image. Modify the sharpen sketch and use a matrix like the following one:

$$\begin{array}{ccc} -1 & 2 & -1 \\ -1 & 2 & -1 \\ -1 & 2 & -1 \end{array}$$

How would you modify this sketch so that it shows horizontal bars instead of vertical ones?

5. Modify the slide show sketch so that the user can pause the slide show, go to the previous image and go to the next image.
6. Write a sketch in which an image is initially displayed and the colours of the pixels gradually randomly change until the whole display area is covered in randomly coloured pixels. (You could use `noise()` for this.)
7. Write a sketch in which one image gradually "morphs" into another one.