# Homework 5 Output devices

1. Describe **three** different applications that make use of loudspeakers, and why loudspeakers are used in these applications. [6]

Loudspeakers might be used in a concert outside. In a city for example, with so many people outside, trying to play music and have the audience be able to hear it with all the noise they are also making is almost impossible with only the voices of the musicians. With loudspeakers, the sound can be outputted at high volumes so people can hear it.

Loudspeakers might also be used for making announcements in large areas like an airport. If a message needs to be delivered to everyone, it would obviously be very inefficient to have someone go around telling everybody the message, and it is almost given that people will be missed. Using a loudspeaker ensures everyone that can hear is able to receive important information.

Loudspeakers can also be used for alarms. Like for example a fire alarm with two parts, one that detects smoke/fire and temperature and if it is triggered, a loudspeaker starts the fire alarm noise. Loudspeakers can be used here because you need the make sure the fire alarm is loud enough so as many people within the fire’s range can hear it and be alerted of a fire. In a dangerous situation like this it is paramount that everyone is aware.

2. (a) List **two** uses of organic LED screens. [2]

Curved monitors

Smart watches

(b) Describe features of this technology that makes it suitable for **one** of the two uses you have described above. [6]

OLEDs are very flexible because they are made out of plastic. This means it’s easy to make curved shaped devices like a curved monitor. They also don’t heat up easily reducing risk of fire hazards since it is important that a very expensive piece of equipment; monitors, don’t easily get set ablaze. Also they are power efficient which is important since a monitor allows for a large resolution but you don’t want to have access to large resolution if it’s only for a short period of time since it wouldn’t be worth buying then. Being power efficient allows for extended periods of time of usage.

1. In future, it may be possible for newspapers to contain moving images.

Write a brief article on whether you think this could be a reality. Include in your article any benefits or drawbacks of having ‘live’ images in a newspaper or magazine. [6]

I don’t think newspapers would have moving images because I think you would need to add electronic output devices on to a newspaper; a really cheap piece of paper. It simply isn’t worth the cost of adding these expensive output devices onto an item that is easily and usually diposable; people read the newspaper, people throw away the newspaper. This would result in an expensive piece of technology being thrown away which is a massive waste of resources. It is beneficial to see moving images because they are more informative. For example if you are trying to spread awareness of a global issue, words are worse at spreading an influence than showing people proof through pictures. It is also better for advertisement because if people can actually see something that is being advertised at it’s full potential, instead of a static image, they will more likely want to invest in the product.

[Total 20 marks]