Hardware

A-Level Computer Science · Vocabulary in context

Word	Example
input devices /ˈɪnpʊt dɪˈvaɪsɪz/	A keyboard and a mouse are **input devices**.
microphone /ˈmaɪkrəfəʊn/	A **microphone** records your voice.
sensor /ˈsensə/	A light **sensor** turns on the street lamp at night.
output devices /ˈaʊtpʊt dɪˈvaɪsɪz/	A screen and a printer are **output devices**.
actuator /ˈæktʃuːeɪtə/	A motor is an **actuator**: it moves the robot's arm.
primary memory /ˈpraɪməri ˈmeməri/	RAM and ROM are **primary memory**. RAM ROM
processor /ˈprəʊsesə/	The **processor** runs the program's instructions.
RAM /ræm/	Open programs are stored in **RAM**.
ROM /rɒm/	The start-up program is kept in **ROM**.
secondary storage /ˈsekəndəri ˈstɔːrɪdʒ/	A hard disk is **secondary storage**.
hard disk /hɑːd dɪsk/	Your files are saved on the **hard disk**.
optical disc /ˈɒptɪkl dɪsk/	A DVD is an **optical disc**. DVD
volatile /ˈvɒlətaɪl/	RAM is **volatile**: when you switch off the computer, its data is lost. RAM

exercises.lol exercises.com.cn

Word	Example
embedded system /emˈbedɪd ˈsɪstəm/	A washing machine has an **embedded system** inside it.
firmware /ˈfɜːmweə/	The **firmware** in a printer tells its parts what to do.
laser printer /ˈleɪzə ˈprɪntə/	A **laser printer** prints pages fast.
drum /drʌm/	The laser draws the page on a turning **drum**.
toner /ˈtəʊnə/	The black powder in a laser printer is **toner**.
fuser /ˈfjuːsə/	The **fuser** heats the toner so it sticks to the paper.
buffer /ˈbʌfə/	The printer keeps the pages in a **buffer** until it is ready to print them.
3D printer /ˌθriː ˈdiː ˈprɪntə/	A **3D printer** builds a model layer by layer.
filament /ˈfɪləmənt/	The printer melts plastic **filament** to make the model.
diaphragm /ˈdaɪəfræm/	Sound makes the **diaphragm** in the microphone move.
capacitor /kəˈpæsɪtə/	A **capacitor** stores a small electric charge.
analogue-to-digital converter /ˈænəlɒg tə ˈdɪdʒɪtl kənˈvɜːtə/	An **analogue-to-digital converter** turns sound into numbers.
digital-to-analogue converter /ˈdɪdʒɪtl tə ˈænəlɒg kənˈvɜːtə/	A **digital-to-analogue converter** turns numbers back into sound.
tracks /træks/	A hard disk stores data in circles called **tracks**.

Word	Example
sectors /'sektəz/	Each track is split into **sectors**.
read/write head /ri:d raɪt hed/	The **read/write head** moves over the spinning disk.
actuator arms /'æktʃu:eɪtə ɑ:mz/	The **actuator arms** move the heads across the disk.
solid-state drive /'sɒlɪd steɪt draɪv/	A **solid-state drive** has no moving parts.
transistors /træn'zɪstəz/	A chip holds billions of **transistors**.
floating-gate transistor /'fləʊtɪŋ geɪt træn'zɪstə/	A **floating-gate transistor** keeps its data with the power off.
pits /pɪts/	A laser reads the **pits** on the surface of a CD. CD
lands /lændz/	The flat parts between the pits are **lands**.
touchscreen /'tʌtʃskri:n/	You use a phone's **touchscreen** with your finger.
resistive /rɪ'zɪstɪv/	A **resistive** screen works when you press it.
capacitive /kə'pæsɪtɪv/	A **capacitive** screen feels the charge in your finger.
virtual reality /'vɜ:tʃu:əl rɪ'ælɪti/	A **virtual reality** headset shows a 3D world. 3D
accelerometer /ək,selə'rɒmɪtə/	The phone's **accelerometer** knows when you shake it.
gyroscope /'dʒaɪrəskəʊp/	The **gyroscope** knows when you turn the phone.
interrupt /'ɪntərʌpt/	Pressing a key sends an **interrupt** to the processor.

exercises.lol exercises.com.cn

Word	Example
non-volatile /nɒn 'vɒlətaɪl/	ROM is **non-volatile**: it keeps its data with the power off. ROM
SRAM /'esræm/	**SRAM** is fast and is used for cache.
DRAM /'di:ræm/	**DRAM** is used for the main memory.
flip-flop /flɪp flɒp/	A **flip-flop** stores one bit.
cache /kæʃ/	The **cache** keeps data the processor needs often.
refreshed /rɪ'freʃt/	DRAM must be **refreshed** many times every second. DRAM
monitoring /'mɒnɪtərɪŋ/	A **monitoring** system checks a patient's heart rate.
control system /kən'trəʊl 'sɪstəm/	A **control system** keeps the room at 20 °C. 20 °C
feedback /'fi:dbæk/	**Feedback** lets the system check the result and adjust.
preset value /'pri:set 'vælju:/	The heater turns off at the **preset value** of 22 °C. 22 °C
thermistor /'θɜ:mɪstə/	A **thermistor** measures the temperature.
logic gate /'lɒdʒɪk geɪt/	An AND gate is a **logic gate**. AND
Boolean /'bu:lɪən/	A **Boolean** value is either TRUE or FALSE. TRUE FALSE
truth table /tru:θ 'teɪbl/	A **truth table** shows the output for every input.
logic circuit /'lɒdʒɪk 'sɜ:kɪt/	A **logic circuit** is made of logic gates.