

Contents of New PC – Pulborough Computer Club

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Case

I recommend a midi size case for ease of build. I use Antec cases as they are mid price, excellent build quality and (if included) the power supplies are very reliable. I have also used Jeantech and ColorsIT cases with success. A reasonable case costs £40 - £70.

If, for aesthetic reasons, you want to build a small PC, a silent PC, or a media centre, there are cases available to suit. Expect to pay a significant premium.

Power Supply Unit – If you have bought an Antec case with PSU, it will be perfectly acceptable for any PC. If your case has no PSU, expect to buy a minimum of a 400W supply, of good quality. Prices of PSUs vary enormously, dependent on quality. Expect to pay at least £30 for a good quality item and up to £150 for the best. You can pay £10 on Ebay, but you will regret it sooner rather than later.

CPU – The processor in your PC determines much of the remaining component choice. There are many processors available now and almost all will carry out the basic function of running Windows XP, emailing and word processing. If that is the limit of your computing aspirations you can safely go for the cheapest available.

If you believe you may want to perform more strenuous tasks, it will be worth paying more for a powerful processor. Prices of processors vary from £60 to £800 so you can set your own level. The price difference between Intel and AMD is reducing, but AMD typically still offer more performance per pound spent. All my PCs are built with AMD processors unless customers demand Intel.

Motherboard – Motherboards are probably the hardest component for the novice to buy. The specifications will appear confusing and much of the information will be technical. Suffice it to say that the choice of CPU will limit the choice of motherboard significantly. Simply choose a motherboard that has a socket to fit your chosen CPU, then add on extra features as you see fit.

One other key criteria will be the graphics card slot type. There are AGP or PCI-E slots for graphics cards, or the graphics may be integrated. In terms of performance, a dedicated graphics card will outperform integrated but the difference between AGP and PCI-E is negligible. PCI-E is the newer technology so you may elect to opt for that route.

Memory – Simply choose the fastest memory that the motherboard supports. Go for 512MB as a minimum and 1GB if you intend to do photography or video work. For extreme gaming you can opt for 2GB. I recommend you use the memory selector at this site Crucial.com/uk. This will guarantee a good match.

Graphics Card – We have already looked at how graphics card technology shapes your choice of motherboard. Choosing a graphics card is even more confusing. Prices of dedicated graphics cards vary from £20 to £500. There is a tendency lately to quote cards that have large amounts of memory, but some of these 'borrow' memory from the main RAM installation. Choose a card with on-board memory in preference.

Floppy Disk Drive – Most new PCs will come without a floppy drive, but fitting one in a new build is a good idea. The drives cost less than £10 so adding one is not a financial decision.

Hard Disk Drive – Hard drives come in two distinct types. The older technology is IDE, sometimes known as PATA. The newer technology is SATA, latterly SATA II. The difference in speed between IDE and SATA is minimal and most motherboards support both. In terms of choice a novice would be better to opt for an IDE drive as the XP installation is more straightforward as a result. Go for whatever size you want but 120GB is a sensible minimum.

DVD RW – It makes little sense to buy any optical drive other than a DVD Rewriter. A CD Rewriter may be bought for about £5 less but in reality it is not a saving worth making.

Software - You will need a copy of Windows XP Home Edition, an antivirus product, and an Office package of your own choosing. Obviously you can add to this list to your hearts content.

If buying good quality components you will not spend less than £500 on your PC. It is, though, possible to build a PC for much less. I have drawn up a table to demonstrate.

	Cheap PC	Cost	Good PC	Cost
Case	Generic unbranded	20	Antec 1650	60
PSU	Included in case		Included in case	
CPU	Intel Celeron	50	AMD 64 3000	100
Motherboard	PC Chips	25	Asus	50
Memory	Generic 512MB	25	Crucial 1GB	60
Graphic card	Integrated		Nvidia 256MB	60
Floppy Disk	None		Sony FDD	10
Hard Disk Drive	120GB	45	200GB	60
DVD RW	Generic	25	Known brand	35
Windows XP	Dodgy copy from friend (or Linux)		Legal copy (OEM)	75
AntiVirus	AVG Free		CA EZ AV	25
Office	Dodgy copy from friend (or Open Office)		MS Works Suite	90
Totals		£190.00		£625.00

What this also demonstrates is how easy it is for unscrupulous traders to make money. If I built all my PCs based upon the left column but charged as per the right, my profit margins would be excellent!

Needless to say, I would expect the PC on the left to have a much shorter lifespan than the one on the right, but as a first time builder you may be more tempted to spend £200 rather than £600.

Where to buy

I recommend purchasing all items online, preferably from a single supplier. If you choose to save a couple of pounds by going for the cheapest price from six different suppliers you will find it very hard to persuade them that it is their product that is causing the problem, if one occurs.

I have had success buying from dabs.com, overclockers.co.uk, scan.co.uk and others (ebuyer are very cheap but have a 100% failure rate at delivering items for me!)

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