



# Sitting Pretty

**'Ergonomics' is the science of making machines more pleasant to use. With computers, research has been concentrated on the screen and keyboard**

There are two aspects of design: aesthetics, or beauty in form and appearance; and ergonomics, which is the study of the relationship between workers and their environment. No matter how well something functions, we will be unhappy using it if it is ugly in appearance. Similarly, the environment in which we are working must not be distracting or uncomfortable.

As a factor in the choice of which microcomputer to buy, the ergonomic quality will probably be less of a consideration than the price and performance of the machine. It is, however, worthwhile to give some thought to the physical environment in which you use the computer. First of all, do you work at something that resembles an office workstation, with adequate desk space on a working surface set at the right height for you? Or do you simply plug your home computer into the family television set and work with it on your lap, or, worse still, lying on the ground in front of the television set?

Computer programming is quite complicated enough on its own, without making it more difficult by working in a completely unsuitable environment. There are many ways in which you

can create a more comfortable workstation. Let us start by considering what can be done to make the screen more comfortable to read. If you are using a domestic television set, then you will be unable to benefit from recent developments that help reduce or eliminate screen glare in monitors. These include filters to minimise reflection and specially coloured screen phosphors. But you can improve the quality of display on a television set by placing a filter over the screen. Simple coloured filters are easy enough to obtain, and it is also possible to use a polarising filter, which eliminates reflections. These methods help to achieve high contrast at low brightness levels, and thus avoid unnecessary eyestrain.

External lighting levels are also important. When working at night it is considerably better to use a low-set desk lamp that illuminates the keyboard and any notes from which you are working, but leaves the screen in comparative darkness. The distance from eye to screen is also important — the body should be approximately an arm's-length from the screen. The display itself should be tiltable, so that the plane of the screen is at 90 degrees to the line from your eye to the

## Body Language

While the human body may vary in size and shape, the proportions stay fairly constant, as any student of figure drawing soon realises. The study of ergonomics makes use of this consistency to define general rules for laying out working environments. With a home computer or a VDU these suggest that the screen should be at arm's length (to minimise changes in eye focus when looking backwards and forwards between screen and source document). The position of the keyboard is also dictated by these same rules

