WHEN buying a digital still camera there are several measures of whether you are getting the best value for your money. Resolution is an easy one: more megapixels equals better detail and a wider range of options in zooming and cropping.

What about the lens, considered by some professionals to be the most important part of a camera? Two electronics manufacturers, Sony and Panasonic, have partnered with two big names in the lens business, Carl Zeiss and Leica, and both Sony and Panasonic list the imported lenses as key features in their marketing promotions.

However, while Panasonic's Lumix range is said to have Leica lenses, the lenses aren't actually made by Leica. They are manufactured at Panasonic's Yamagata factory in Japan under Leica's stringent quality control program, according to Panasonic Australia.

Sony and Zeiss have a similar relationship – the lenses are produced according to "strict manufacturing specifications".

Some have asked whether customers are getting a Leica lens or just the Leica name. To a certain extent the question is unfair. Few lenses are hand-made these days, apart from the extremely expensive models targeted at the professional market.

For the record, Canon, Nikon, Pentax and other camera manufacturers also mass-produce their own lenses for consumer digital cameras in factories, with variations in technique.

There are three central components in a digital camera that determine picture quality. Of these, the lens is among the most important. It is the first point that projects the image to the sensor, or charge-coupled device.

The quality and size of the CCD determines how well it captures the image, and the most expensive cameras have large sensors.

The third component is the software used to translate the image on the sensor into digital code.

Most data processing uses techniques owned by the manufacturer. As part of its Venus Engine II, Panasonic uses LSI technology owned by its parent Matsushita.

So what's the best digital camera? The one that has the three best components for the price you want to pay, which means it's easier to decide on the quality of a camera's output rather than estimating the sum of its parts. Some say only an established camera manufacturer can make a decent camera, but Sony, sitting at the top in worldwide sales of digital still cameras, would no doubt beg to differ.

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