All the signs are that things are afoot at Pentax and moving along very nicely. Developing the DSLR range and making slow but sure progress, the K-x in its multiple colour choices seems to have been a turning point. This has led to the recently tested K-r, highly recommended in itself, and now on to the new flagship model, the K-5. Will the new K-5 sensor, faster AF and new low light capability attract new users? Why should we buy a K-5 rather than the lower cost and already excellent K-r? Time to explore the new camera and find some answers.

**Pentax K-5: Features**

The K-5 is a compact but sturdily built DSLR based upon a Magnesium Alloy body. Seals throughout the body and around dials and buttons provide weather and dust resistance.

A new Sony APS-C sized CMOS sensor of 16.28MP is utilised. The sensor has a range of ISO settings up to a new high of 51200ISO, thus offering enhanced low light potential.

Sensor shift SR provides up to 4 stops advantage with any lens attached and also operates the dust removal system.

The viewfinder features a glass pentaprism and offers a 100% field of view. Likewise the Live view function, also showing 100% and enabling some convenience in making images where eye level operation is difficult. The 3 inch LCD monitor display uses 921,000 dots.
AF employs the latest SAFOX IX+ system, with 11 points, 9 of which are cross type. This is the same system as used in the new 645D. Drive modes include a new high speed of 7fps and mirror up settings for macro work. There are the usual exposure modes of Green, P, Sv, Tv, Av, Tav, M, X and B plus a Movie Mode that provides capture up to 1920x1080 pixels, true full HD at 16:9.

Capture modes provide custom image styles such as Natural, Bright, Portrait, Landscape, Vibrant plus other more esoteric effects. All DA and some FA lenses will be recognised by the camera and in-camera correction of distortion and chromatic aberration can be applied. HDR capture, interval shooting, horizon correction and even composition adjustment are amongst the large number of other functions on offer.

The camera can also be customised to the requirements of the user. 27 different parameters can be adjusted to suit the individual.

Add the D-LI90 battery and SD memory card and the whole package weighs in at just 740g.

<table>
<thead>
<tr>
<th>Pentax K-5 Key features: Click on the thumbnails for larger images.</th>
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<tbody>
<tr>
<td>On the rear there is a 3in TFT colour LCD monitor with AR coating.</td>
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<tr>
<td>There is the standard mode dial found on most DSLRs.</td>
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<tr>
<td>Over by the on/off switch there are buttons to control exposure and ISO.</td>
</tr>
<tr>
<td>The K-5 has been tested using the SMC DA 18-55mm f/3.5-5.6 AL WR kit lens.</td>
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</table>
**Pentax K-5: Handling**
The K-5 feels solid and well made, falling into the grip naturally and offering good placement of all the various controls. Logically, the on/off switch is a collar around the shutter release button and I cannot see any reason why manufacturers would place it anywhere else. There are plenty of dedicated switches for the most commonly needed functions and they do not interfere with the grip on the camera, nor are they liable to be pressed accidentally.

Examining both body and lens carefully, the construction quality is of a very high standard in terms of fit, overall finish and the slick and reliable operation of all the controls. The access doors for battery and SD card are both well made, but the one slight question mark is that the SD card does seem to be quite fiddly to remove. This is probably because the door hinge is slightly close and it is difficult to get a good grip on the card.

Intriguingly, Pentax have reverted to using eyelets and triangular split rings for the strap attachment, harking back to the traditional days of the 60s and 70s. I suspect this has helped to keep the compact dimensions of this highly ergonomic design.

**Pentax K-5: Performance**
Exposure with the K-5 is extremely accurate. Metering is possible in conditions that would have been impossible not so long ago. Add to that the new high ISO settings and that black cat in a coal cellar is there for the taking. Backlighting is no problem but, as is to be expected, it is wise to apply some exposure compensation for very dark or very light subjects. A dedicated button is now provided for this, sitting next to the button for instant access to the ISO setting. These are well spaced, easy to locate and use and certainly more convenient than having to dip into a menu.

Focusing is razor sharp and fast. Moving subjects can be locked into focus and this will be very advantageous with wildlife photography and sports. If necessary, the priority of the AF system can be changed so that less time is spent refining the focus point and quick release of the shutter is favoured. The system seems to be unfazed by most subjects and in this test I did not come up against anything that caused any hunting or indecision. Focusing is significantly faster than say the K20D.

Resolution and noise are always interlinked and with the K-5 the resolution holds very well indeed, right up to about ISO3200. After that, the detail does become compromised, but at least usable images can be recorded. The resolution of the 16.28MP sensor is incredible and large prints or posters will be well within reach and of the highest quality.

In terms of noise, the sensor is very well capable of delivering quality images right up to ISO1600 and with only a slight dip at ISO3200. After that, noise creeps steadily in and there is a reduction in quality. In bright light very high shutter speeds and small apertures can be achieved, but there is plenty of noise apparent. This noise is not of the colour-speckle variety though and is
instead more monochromatic in nature. High speed NR kicks in if not switched off and this slows the writing of images to the card but nonetheless does the job very well. In low light and at ISO51200 images are very noisy, but it is possible to get an image where previously it was not. The colour of this image is actually well maintained, but fine detail does seriously suffer.

Pentax K-5 Test chart ISO speed test: Click on the thumbnails for larger images.
In normal use at normal ISO values exposures are as smooth as silk and there is no noise to intrude on the highly detailed images. This would be in vain if the camera could not be held steadily, but the SR system is highly effective. For normal hand held photography it is now all but essential. It either extends the hand holdable capability to slower shutter speeds, or simply increases the sharpness of those shots at higher speeds. There is always a matter of degree to “sharp” and a point where sharp becomes critically sharp. SR helps to achieve this, or a very solid tripod. The beauty of Pentax’s SR is that it works with anything that is attached to the camera. There is also no need for special
and more expensive lenses.

Colour is one of Pentax's strong points and the K-5 is no exception. The camera delivers neutral-warm images and AWB produces a good result most of the time. If preserving the colour of the original scene is desired, then various presets can be chosen and these offer a range of reliable effects. For example, to retain the vivid red of a sunset the daylight setting gives a very accurate result, whereas AWB would see the dominant colour and attempt to reduce the effect. Of course, if using RAW capture then colour correction can be applied afterwards.
Skin tones are accurate and smooth and in all lighting conditions it is easy to choose appropriate settings that will behave reliably and predictably. Exploring
the colour behaviour of the sensor a little more closely it looks as though there is some potential, as with the K-r, for making pseudo-infra-red images in Photoshop. There is enough red/IR light allowed past the various filters to enable this. When this is done, the amount of noise in the image remains impressively low in all three colour channels. In normal use there is excellent colour throughout and I am very pleased with the outstanding “photographic quality” from the images.

The dynamic range of the new sensor is reported as being amongst the widest, if not the widest currently available. This is certainly borne out in practical use and the range clearly exceeds by many times what has ever been possible on film. I am very impressed by the camera's ability to record both bright highlights and yet retain some detail into the very darkest shadows. An outstanding performance.

Another strength of this camera range is the excellent viewfinder quality. A conventional glass pentaprism offers a clear and bright view of 100% of the subject. This does add a little weight and bulk, but with such a compact design this is not a problem. Manual focusing is precise and the view through the viewfinder is a pleasure. Live view is provided also and the excellent screen shows an accurate representation of the final image. This is useful for low level shots and anything else that is awkward to achieve with an eye level viewfinder. Live view will switch off after approximately 5 minutes to prevent the camera interior from overheating.

The battery used here is the same as that used in the K-r and K-7 and is specified as offering up to 980 shots if no built in flash is used. It would take some time to completely check this, but my impression from using the camera is that it is entirely possible. Battery power seems to be no problem at all and with one spare battery K-5 users will be very unlikely to ever run out of the ability to keep shooting. I say one spare battery, but in reality that is very much a “belt and braces” approach and in normal use the spare is unlikely to be called on.

This time there was little opportunity to test out the weatherproof properties of the K-5, owing to a sudden spell of good weather, but the fact that we can go out into the rain, snow and sleet regardless does open quite a few possibilities. Colours are very dynamic in the rain, so this is an area K-5 users may well wish to pursue.
Pentax K-5 performance: Click on the thumbnails for larger images.

Colour is accurately reproduced.

Tones are well recorded over a very wide dynamic range.

(Above) An impromptu shot at an exhibition shows the advantages of the close focus of the kit lens.

(Right) Gentle and subtle female skin tones.

Pentax K-5: Lens performance
The provided kit lens is the SMC Pentax DA 18-55mm f/3.5-5.6 AL WR. This has simplified weather resistance and is suitable for shooting in the rain. The lens is of largely plastic construction, but is well made and has a metal mount. Controls operate smoothly. The finish is also of a very high standard. A very nice feature is the Quick Shift mechanism, a clutch system that allows manual focus whilst in AF mode. AF can lock on and then MF used to tweak the final focus position. This can be very useful, especially in close up and macro work.

The lens performs extremely well and far better than many other kit lenses. At full aperture there is some softness, but this soon sharpens up and at mid apertures images are crisp and clean. Smaller apertures bring some fall off in
performance, but the lens remains usable. It is a sharp, contrasty lens that will whet the appetite for further Pentax lenses. The centre of the field is sharper than the edges at most settings, but as stopped down towards f/8 and f/11 this does even out very well. I would suggest f/8 to f/16 are the most critically sharp apertures for the highest quality large images.

There is some chromatic aberration in extreme situations and certainly some distortion. This appears as barrel distortion at wide angles and gradually gives way to pincushion at longer focal lengths. The in-camera software can identify all DA and some FA lenses and remove the distortion. This works incredibly well and totally removes any hint of bending of lines from the kit lens. The processing does slow down shooting, but only for 3-4 seconds.

The lens can be made to flare, but the sun needs to be right in front of us to make much impact on the image. In general photography flare is not a problem. However, use of the supplied lens hood is always a good idea.
Pentax K-5 lens performance: Click on the thumbnails for larger images.

<table>
<thead>
<tr>
<th>The lens focuses usefully close at 0.82 feet/0.25m.</th>
<th>Clearly a very sharp lens with excellent colour.</th>
</tr>
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<tbody>
<tr>
<td>(Above) There is some barrel distortion at 18mm.</td>
<td>(Left) The lens is capable of sharp and crisp results.</td>
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</table>
**Pentax K-5: Verdict**

Here Pentax have a camera that is punching very much above its weight. The K-5 can happily take on cameras costing twice as much or more and especially with this fine new sensor will be in a position to challenge any of the APS-C alternatives, at any price. It offers certain critical advantages over the lower priced K-r, such as higher resolution and weather sealing and in terms of value for money is an extraordinary package in the market place as a whole.

In terms of general advantages, Pentax are offering a very compact design that is highly effective. The lenses have always been of the highest quality and there is no doubt that the K-5 will deliver the goods on most levels. Backwards compatibility with thousands of lenses is already well assured.

The quality of colour is exceptional and I suggest that portrait and wedding photographers consider this camera very carefully. Pentax do have some limitations as regards their own telephoto lenses, but alternatives are available from other manufacturers if needed.

In summary, an excellent camera that is very highly recommended.

**Pentax K-5: Pros**
- Robust and light
- Superb colour
- Weathersealing
- Quality of lenses
- Ergonomic design
- Value for money
- Backwards Compatibility with lenses

**Pentax K-5: Cons**
- Fiddly SD card removal
- Limited range of Pentax telephoto lenses

<table>
<thead>
<tr>
<th>FEATURES</th>
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<tbody>
<tr>
<td>HANDLING</td>
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<td>PERFORMANCE</td>
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<td>VALUE FOR MONEY</td>
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<td>OVERALL</td>
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## Pentax K-5: Specification

<table>
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<tr>
<th>Price</th>
<th>£1058.00</th>
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<tbody>
<tr>
<td>Contact</td>
<td><a href="http://www.pentax.co.uk">www.pentax.co.uk</a></td>
</tr>
</tbody>
</table>

### In the box
- AV cable, USB cable, Li-ion battery D-LI90, Battery charger D-BC90, AC cable, Strap, Eye cup FR and hot shoe cover (already mounted), Finder cap for ME, Body mount cover, Sync socket 2P cap, Bottom of body’s cap, Software

### Lens mount
- PENTAX KAF2 bayonet mount

### Resolution
- 16.3Mp

### Sensor size
- 23.7mm x 15.7mm

### Sensor type
- High sensitivity CMOS sensor with a primary colour filter

### Max. Image size
- 4928 x 3264

### Viewfinder
- Penta-prism, 100% field of view

### Focusing system
- SAFOX IX+ autofocus system with TTL phase-matching detection

### Focus types
- Focus modes: AF.A(auto), AF.S(single, with focus lock), AF-C(continuous)

### File types
- JPEG, RAW

### ISO sensitivity
- ISO 80 to 51200

### Metering system
- TTL open-aperture 16-segment metering (coupled with lens and AF information)

### Metering types
- Multi-segment metering, Centre-weighted metering or Spot metering

### White-balance
- Auto, Daylight, Shade, Cloudy, Fluorescent light (D, N, W, L), Tungsten light, Flash, CTE, Manual (configuration on monitor, colour temperature from 2 500 to 10 000K, 100K steps)

### Exposure compensation
- ± 3EV (selectable EV steps: 1/3 or 1/2 steps)

### Shutter speed range
- 1/8000 - 30 sec.

### Continuous shooting
- 7 fps high-speed continuous shooting

### Image stabilisation
- Sensor-shift Shake Reduction

### Movie mode
- FULL HD: 1920x1080 (16:9) at 25fps
- HD TV: 1280x720 (16:9) at 30 or 25fps
- VGA: 640x480 (4:3) at 30 or 25fps

### Monitor
- 3" (7.62cm) TFT colour LCD monitor with AR coating

### Media type
- SD / SDHC
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
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<tbody>
<tr>
<td>Live View</td>
<td>Yes</td>
</tr>
<tr>
<td>Interface</td>
<td>Mini-HDMI, AV outputs and USB</td>
</tr>
<tr>
<td>Power</td>
<td>Rechargeable D-LI90 Lithium-ion battery</td>
</tr>
<tr>
<td>Size (hxwxd)</td>
<td>97 x 131 x 73mm</td>
</tr>
<tr>
<td>Weight (body only)</td>
<td>660g</td>
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</table>

The Pentax K-5 body costs £1058.00 and is available from Warehouse Express here:

[Link to Pentax K-5](https://www.warehouseexpress.com/pentax-k-5)