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Modern electronics, particularly modern hobby electronics, use accelerometers in a variety of ways: particularly as motion sensors, orientation inputs (as in the landscape or portrait screen change when you rotate a tablet or smart phone) or integrity sensors. Laptops, for example, incorporate an accelerometer as a shock warning â€“ when the laptop is dropped the accelerometer warns the computer that it is falling, allowing it to park the hard disk heads in an attempt to avoid damage.

Accelerometers generally donâ€™t display the values they have measured: instead they are used as relays, which change the state of other parts of the device in which they are situated. For example, the accelerometer in a smart phone or tablet tells the display that it has rotated, which prompts it to display a landscape instead of a portrait version of an image or screen.

The vehicle industry has started using accelerometers to assist in emergency notification of crashes. The technology is collectively known as ACN (Automatic Crash Notification) and use cellular technology to call for assistance if a vehicle equipped with the tech crashes. The accelerometer detects a pre-determined G-force (defined as â€œcrash strengthâ€•), and alerts the ACN that it needs to warn the emergency services.

Nintendo has made the motion sensing capabilities of accelerometers more widely visible than ever with its Wii platform, which famously uses playerâ€™s hand movements to control characters or events on screen. The Wii controller is fitted with an accelerometer that senses motion through three axes (making the input feel three dimensional). Similarly, Sony has utilised accelerometers in some of its racing titles to make the motion of the vehicle feel more realistic.

Interface control may also be facilitated with accelerometers. Tap sensitivity on touch screens and slider bars (on touch screens again) for volume control or toggling may be powered by an accelerometer.

Modern cameras, both motion and still, use accelerometers to help with image stabilisation. The accelerometer senses the orientation of the camera through a series of tiny vibrations and only releases the shutter (it isnâ€™t a real shutter in the old sense but the term remains in use) when the accelerometer records a split second of stability. In addition to image stabilisation or correction of lens shift, many digital cameras contain an accelerometer to help determine the orientation the camera is held at during a shot â€“ and so whether the shot should be displayed as a portrait or a landscape image.

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Proto-PIC is a website designed originally as a front-line resource for electronics enthusiasts and hobbyists. Proto-PIC is particularly concentrated on Microcontroller Programming and Development, supplying kits and individual parts made by the biggest names in the hobby electronics world.a Accelerometers

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