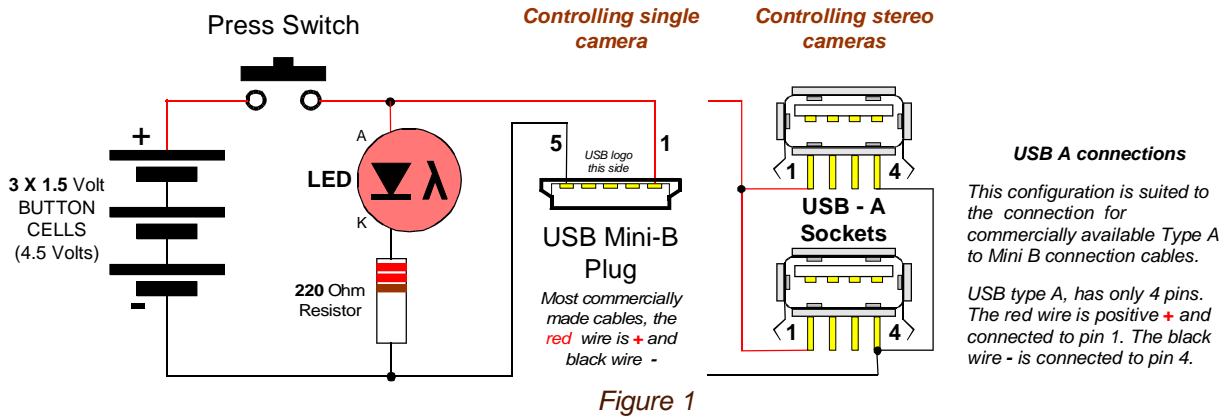


Hand crafted SDM Remote switch

The cable release that featured on many old film cameras seems to be a thing of the past in the digital era. Most digital cameras, particularly the cheaper point and shoot types, are missing this vital facility. Fortunately, the developers of CHDK/SDM realised the value of the cable release and thought out an ingenious method to create such a facility. The software has been crafted to use the cameras existing USB connection. The shutter is activated by applying a voltage signal to the power leads on the USB lead. SDM extends the remote facility further by additional software to achieve precise synchronisation of two or more cameras from a single switch.

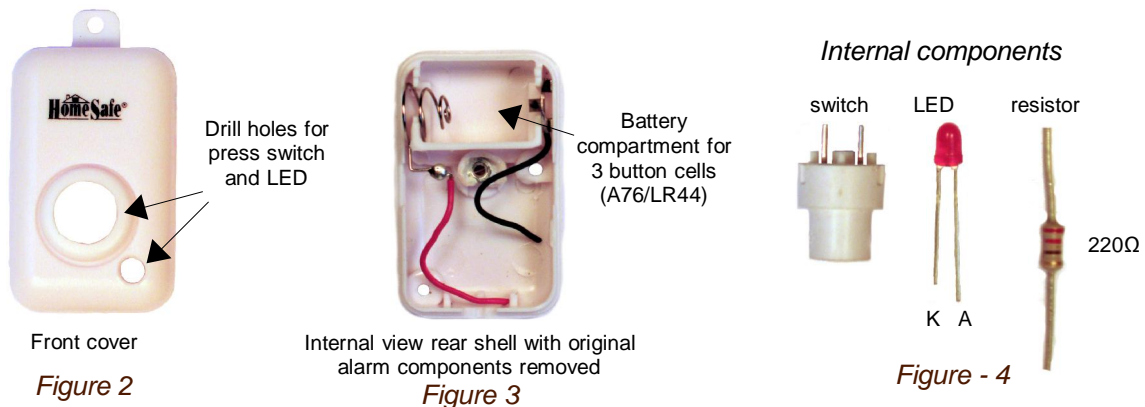
There have been many remote switches that have been published in the past. The main motivation for this variation, was an updated circuit schematic. Many cameras now require greater than 3 volts to activate the shutter. The circuit includes two configurations. The first, for controlling single camera by Mini USB-B and the second for the control of stereo cameras. See figure 1



Although this is a simple circuit to build, you may prefer a ready made remote switch. There are a number of reputable suppliers in the SDM community that would only be too happy to help in supplying something suitable to your needs and price. But if your currency exchange rate is poor, or you have plenty of time on your hands and are competent with tools and a soldering iron then read on!

The motivation behind this project was to make a remote for A480 camera. The camera requires greater than 3.34 volts to activate the shutter. To make the job of constructing the remote switch a simple one, an existing small electronic item was sought that was powered by 4.5 volts. There were lots of contenders, that included torches and the like. Eventually an unobtrusive personal alarm unit was chosen that was powered by 3 button cells. See figure 2 The device selected was ideal as it had a separate battery compartment to allow easy exchange of depleted batteries. See figure 3

One feature often missing from a CHDK/SDM remotes is a visual indicator. Its inclusion it made sense as it doubles as a battery indicator (which is something that many users "intermittent operation" can be attributed).



The construction of the remote switch circuit was really simple (yet it consumed many hours to build). The component wiring was direct point to point. In hindsight, a "vero" board solution would have been a lot neater. The personal alarm was dismantled and all electronics was removed leaving only the internal battery carrier. See figure 3 Various holes were drilled to accommodate the momentary press switch and the LED indicator. See figure 2 The internal components (see figure 4) for the control switch were then connected to a Canon USB cable originally supplied with the camera. The type A USB plug was cut off and wired directly to the switch circuit. The finished product is shown below. See figure 5

