## NEC芯片原理图—检测电压并在8划管显示

--Program Description and Specification

The hardware required to demonstrate microcontroller safety features includes an NEC Electronics microcontroller connected to a reset switch, with other switches for input, a two-digit LED display for output, and variable-voltage controls for VDD and EXLVI. This hardware demonstrates reset, power-on-clear, low-voltage detect, and watchdog timer operation. The variable-voltage control for VDD uses the tap of a potentiometer connected to the VDD power supply such that turning the potentiometer varies VDD from 0 to 5V.

Figure 7.   Demonstration Hardware
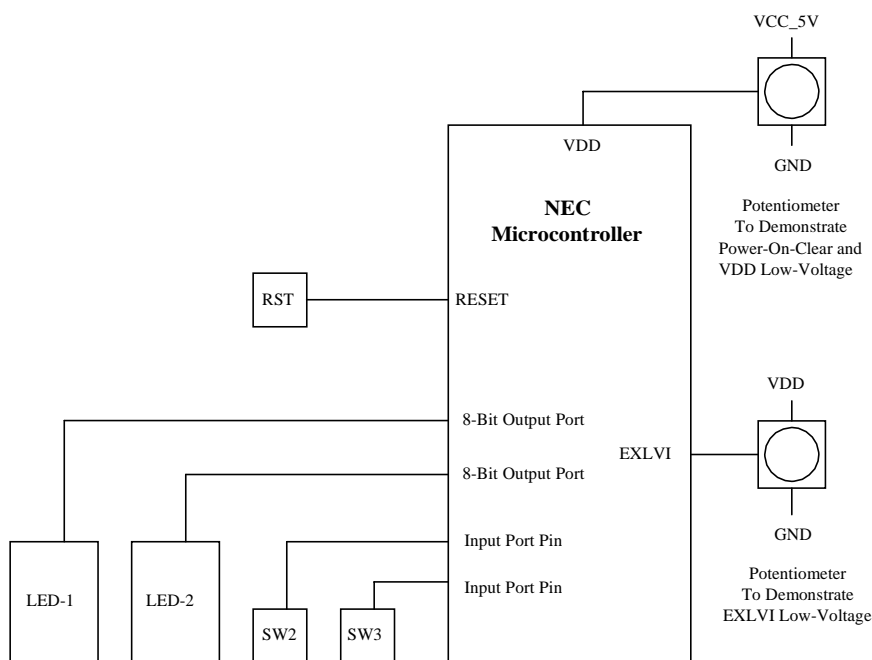
On start up, the demonstration program reads the RESF register and displays the value in the LED display. This value indicates the cause of the previous reset.

To demonstrate external reset, ground the reset input by pressing the RST switch.

To show power-on-clear, adjust the potentiometer to reduce VDD below Vpoc. When power is applied, the device remains in reset, and the LED display remains blank, because it is not driven. Adjusting the potentiometer to raise VDD brings the microcontroller out of reset when VDD exceeds Vpoc. The display then shows the RESF flag value; this value will be 00 for a power-on-clear reset. Reducing VDD causes a power-on-clear when VDD falls below 1.59V. This event blanks the LED display. Turning VDD back above 1.59V releases the power-on-clear reset and displays the RESF value of 00.