

impedance of $0.1\ \Omega$, the voltage output will drop 2 mV by the voltage channel sharing the ground line. You can avoid this problem in the following ways:

- Use a shorter cable to minimize the impedance of the shared ground line.
- Use separate wiring for voltage channel and current channel ground lines return to minimize common ground impedance.
- Use different pairs of voltage and current channels to keep your sensitive voltage outputs separate from your higher output current channels.

Power-on State

All current outputs are within $\pm 1.1\ \text{mA}$ maximum of their user-defined values within 0.5 s of power-on board reset. The current outputs will settle to their user-defined values to full accuracy within 7 s of power-on board reset. Take this behavior into account when connecting external devices to the NI 6704.

Digital I/O Signal Connections

Figure 2-4 illustrates example signal connections for three typical digital I/O applications.

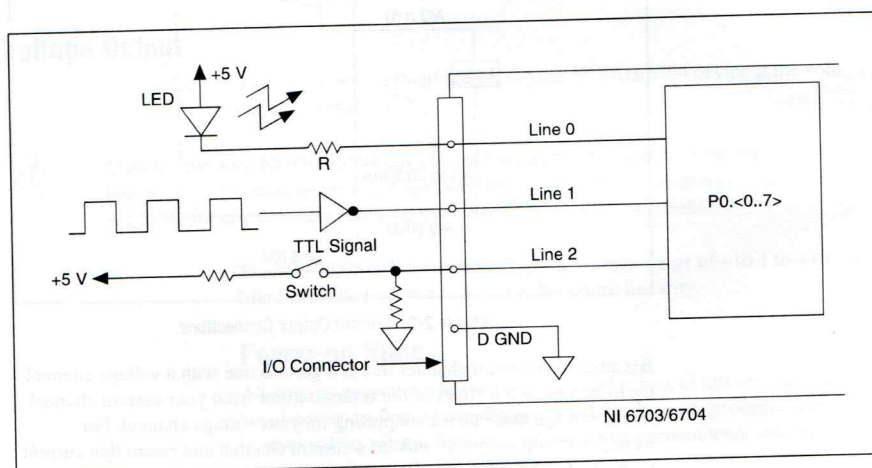


Figure 2-4. Example Digital I/O Connections