HOW IT WORKS

Okay, so I might be stretching things a bit by calling this project a ghost detector. This project actually detects *electromagnetic fields*, but many people believe this is how to tell if there are ghosts or spirits around.

In this project, you'll set up a ghost-detecting antenna and LED bar graph system to tell whether there is a high level of electromagnetic activity in the vicinity. A length of bare wire acts as an antenna to pick up an electromagnetic field within a radius of two meters. Depending on the strength of the signal, the LEDs will light in sequence: the stronger the signal, the more LEDs will light. Power up the Arduino, and point your detector into a room to pick up any unusual presences. Be aware that electrical appliances such as televisions will cause the detector to dance around because of the signal they emit.

THE BUILD

1. Place the LEDs into the breadboard with the legs on either side of the center divide (see "Breadboards" on page 4 for more on the layout of the breadboard), as shown in Figure 6-1. I started with a yellow LED, then used six green and three red LEDs to create a scale from left to right. You can use any color LEDs and position them in the sequence you prefer.

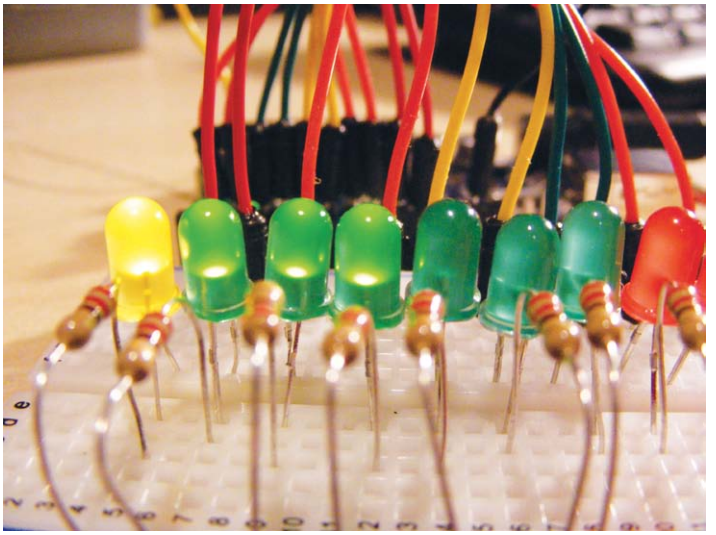

FIGURE 6-1:
Placing the LEDs