The water source is a plastic 1 liter bottle that is connected to a solenoid valve. The valve is actuated by a Darlington driver chip on the SSMI board. The moisture sensor is placed in the soil, and measures the moisture level as an analog voltage. The microcontroller will digitize this voltage, and determine when to open and close the valve. The settings for controlling the water will be taken through the keypad. For easier interaction, instructions and measurements will be displayed on the LCD. Figure 1 shows the physical layout of all components.