Project
Due Mon. 12/05

Ardruino Microcontroller Project
Example Project Proposals

1. Switch Controlled Counter
   Use a switch to increment a counter and display the count on the 7-segment LED. A second switch can be used to decrement the counter. After each switch press, the counter value is updated on the display.

2. PWM Signal
   Many robotics applications use pulse width modulation (PWM) to control motors. The speed of a DC motor can be controlled by PWM signal. A servo is a special motor that controls the rotational position via PWM signal. Servo motors are used in radio controlled toy cars to set the wheel angle.

3. Light Sensor
   Use the photocell to detect light. The basic mechatronic car can be modified to avoid light. The sensor could be placed on the bottom of the car and used to make sure the car stays on a table.

4. Digital Thermostat
   The temperature can be detected using a thermistor. Convert the temperature into a digital value which can be mapped and displayed on the 10-segment bargraph display.

   The digital thermostat can be paired to make an intelligent fan. The fan will be on only when the temperature is below a specific temperature.