The Practicum Project Ideas

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A moving car with motion and light sensors. This is a project that I did the last term using an Arduino processor. The car moves in a straight line (the motion is controlled by 4 motors attached to each of the wheels). Once an object is detected within a specified distance, the car will change direction. (the sensor is attached to a servo that keeps sweeping 180 degrees to detect any object in the way. once the car reaches a dark room/area, it stops and starts playing a tone that is also produced from the Arduino.

The second idea is a thermal pad with temperature sensor. The temperature sensor will take measurement of the temperature of a person and sends signal to the processor. According to the body temperature, the thermal pad will be signaled to radiate heat to warm up the person.

The third idea is temperature regulation of a space using a temperature sensor and fan. The idea is to design something that could replace faulty board in your fridge or freezer. The device would measure the temperature of the fridge using a thermistor and send a signal to turn on the fridge cooling system, while also doing a daily defrost cycle. In the case of our project, we would be turning a small fan on to represent the fridge cooling system. The input would a thermistor, actuator would be a fan and possibly a screen that shows the temperature, and the controller is the ATMega32U4