Equipment List – Senior Design

- Structural material for body of machine
- Perforated Prototyping Plate
- Breadboard
- Connection Wire
- Motor
- Limit switch
- Infrared proximity sensor
- Gear set
- Arduino Uno
- 9V battery
- Power supply cable
- USB Cable
- Resistors
- 50F capacitor
- Capacitors, inferior to 1mF, inferior to 16V
- H bridge
- Diode Zener 3,3 V
- Diode Zener 5,0 V
- Diode 1N4001 (or equivalent)
- Transistor 2N3904 (or equivalent)
- Transistor 2N3906 (or equivalent)
- Cyanoacrylate glue tube
- Hot glue
- Elastics
- Popsicle sticks
- Metal hangers
- Play-Doh
- Soldering Kit

- You must bring your laptops - you will have full internet access
- You should be aware of the basics of arduino uno programming.
- You must install the arduino uno software on your laptops. http://arduino.cc/en/Guide/HomePage
- You should review basic knowledge on capacitors. ($Q = CV$, $E = 0.5\ CV^2$)
- You should bring pens, paper, measuring tape, scissors and x-acto knife for your team.