Faculty Meeting  
Tuesday April 10, 2007  
Team D.E.A.D.S  
Presents: Dr. Johnson, Justin Dick, Ngon Du, Lassen Loop, Travis Taylor  

**Agenda:**

1) Team’s Preliminary Design Presentation Rehearsal  
2) Others/Homeworks  

**GOALS TO CAPTURE AT PRELIMINARY DESIGN:**  
1) Review understanding of needs/specifications  
2) Overview for design solutions  
3) Breakdown subsystems  
   - design choices  
     A) sensor/detector (include communication)  
     B) Solenoid  
     C) Timer/Receiver  
   
   Include the following for A, B, and C:  
   1) strengths  
   2) weaknesses  
   3) ease of use  
   4) cost  

4) Budget  

**THINGS TO INCLUDE DURING PRELIMINARY DESIGN PRESENTATION:**  

- Introduce members of the project  
- Overall view of the project’s specifications  
  - Note to client: Team came up with these specifications based on client’s project’s description. See if client will agree with these specs.  
- Overall systems: subsystems diagram:  
  - Unit/Subsystem with embedded control vs. microcontroller:  
    - When talking about control unit: include other parts such as user selection, random timing intervals, and valves interface with cannon.  
- Sensor Technologies:  
  - List all the options (top 3 sensors team selected)  
    - List Pros and cons for each option  
  - Sensor Options: include the price comparison and ranged of detection for all 3 top options
- PIR option: microwave and Passive infrared
  - explain to client what is microwave and IR means. What’s the pros and cons for each technologies.

  - Microwave: How does it detect its signal (will it work with plants/crops or trees only?)

- Power Consumptions:
  Sensors: Highest power consumption (about 1 year)
  Receiver/Controller: very few current drawn (low power consumption)

- Cost estimation per unit: about $280
  - Ask for additional budget for other cost: (poster, pc board, prototypes)

- Detection Range Sensor: mention about not meeting 500 ft. and original sensor Mentioned by client has about 50 ft range detection

Note1: Use either detector or sensor term consistently
Note2: Use powerpoint instead of website for presentation
Note3: Print an agenda page for client for presentation
Note4: Watch for contrast colors of text and background in powerpoint
  - Watch out for small font
  - Use arial font

HOMEWORKS:
1) Prepare powerpoint presentation
2) Improvements on presentation