APM
(Automated Programmer Machine)

The Programmers
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Project Overview

• Automated Programmer Machine
  – Allows students to use PIC and Atmel programmers in the senior design lab outside of TA office hours
  – Students are tracked through UFID #s (card swipe)
  – Programmers are tracked through embedded RFID tags
  – TAs and professors will be able to access the records from a terminal program via the USB port on the main console
  – Student interface: LCD and pushbuttons
  – DC Motor turns auger to dispense selected programmer
  – Students can return programmers into a drop chute, which will have an RFID reader to record the check-in
  – System will include a battery backup, in the case of a power failure (records also stored in EEPROM)
Progress to Date

- Formulated high-level system design
- Began ordering components
- Preliminary research
Current Work

• Research more components
• Begin DC motor driver research/ordering vending machine parts
• Begin designing TA and student interfaces
Automated Programmer Machine (APM)

- Project formulation C+E
- Research C+E
- Order Initial Parts C+E
- System Level Design C+E
- USB, RFID, card scanner Interface - E
- Preliminary motor driver design - C
- LCD, Student interface, Data storage - E
- Finalize auger + motor design - C
- Interface motor drivers with cpu design, PCB Layout - E+C
- Spring Break - C+E
- Populate PCB/Debug - C+E
- Mechanical Design (dyeplot, dispenser, enclosure) + final report
- Final Demo Preparations
- Final Paper + Prepare for Harris Rotunda demo
- Demo in Harris Rotunda

Start Date □ Allocated Time □ Extension

1/28/2009
## Overall Project Status

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