Team 1 Weekly Report (1/29/09)

By James Paolino
Team Members: Eric, Alex, and Tarek
The S-90 Off-Road Vehicle is nearing completion and all major body work is done. The final product will look like the image above, but will be painted blue and have a battery on the front.
Completed work
Completed Work
Completed Work

- Electronic control of steering using three methods of control has been completed and tested
- Electronic control of throttle and brakes are complete and tested
- All transducers and motors are mounted
- The key has been mounted including electric start for the engine and headlights
Completed Work

- Majority of wiring is complete
- Software for essential driving functions is complete
- Software for speed regulations is complete
- Engine has been tested, alternator current verified at 7amps at 3600RPM
Project Review

- **Successes:**
  - Chassis completion was relatively fast due to the Virtual model created using CAD software
  - Electronic controls worked on the first attempt (after wires were hooked up correctly)

- **Hang-ups:**
  - Front left wheel was mounted in the wrong position initially
Project Review

- Some issues that might be a concern:
  - Getting the PCB designed
  - Getting wireless control integrated
  - Power of braking system
Future Work

1 Week:
- Mount carseat bracket to the carseat
- Put limits and return springs for steering wheel and pedals
- Have all wireless control integrated

2 Weeks:
- Have all electronic controls verified and test failsafe
- Test all systems with engine on

1 Month:
- Have PCB done and mounted
- Have project painted and test-driven
- Probable completion of project in 4-5 weeks
Future Work

- Eric will work on the software completion
- Eric and Alex will work on PCB design
- Alex will work on mounting switches and finishing the wiring
- James and Alex will work on making limit switch/simple logic for gearbox shifter
- James will work on steering wheel/pedal completion
- Tarek and James will work on finishing up any body work and finalizing the carseat mount
- Tarek will work on painting the vehicle
Budget

- New parts (some electronics) approximately $200, depending on PCB cost
- Paint cost (brushes/dropcloth/etc.) $50
- Gas can w/ gas for test driving - $50
- Current expenditures with shipping are $2,192.37
- Total expected cost roughly $2500.07
Hours Worked

- Over winter break:
  - Eric: 80h
  - Alex: 70h
  - James: 150h
  - Tarek: 25h

- Since start of semester:
  - Eric: 50h
  - Alex: 40h
  - James: 50h
  - Tarek: 10h
Wrap up

- Questions/comments/concerns?

- We would like to mention that Rich and Serge have been integral to the success of our project through all the help they have provided in the machine shop and by letting us store the project there.