Assignment Set 04 (Tasks & Due Dates)

**Chris**
- Design and construct a Relay Processor Board via BASIC Stamp.
- Complete assembly of the pulse width converter kit (mount heat sink) [Tues 3/18/03]
- Continue to draft the RV Power System & Bus [Thurs 2/20/03]
- Complete RC car construction [Tues 3/18/03]

**Jill**
- Design and construct a Temperature Sensor processor board via BASIC Stamp
- Continue development of LabView Interface for RV control [Tues, 2/25/03]

**Guillermo**
- Test RDF attenuator [Tues 2/25/03]
- Complete RC car construction [Tues 3/18/03]
- Prepare vehicle layout design & present in class [Tues 3/18/03]

**Art**
- Develop/Implement BASIC Stamp CanSat TNC system.
- Construct waveguide antenna(s) [Tues 3/18/03]

**Instructor**
- Complete case for SBC electronics. [Tues 3/18/03]
- Make case for GPS/Compass/BS microcontrollers.
- Plan for Simulation Test #1 sometime in late March.
Rover SBC I/O Modes

Serial Data Ports:

1. GPS
2. Servo Controller
   i. Servo 1: Steering (Left/Right)
   ii. Servo 2: Camera Rotator
   iii. Servo 3: Payload Arm 1
   iv. Servo 4: Payload Arm 2
   v. Input 1: Temperature (CPU Case)
   vi. Input 2: Temperature (ATV Transmitter Case)
   vii. Input 3: Temperature (Main Drive Motor)
   viii. Input 4: Temperature (Main Drive Battery Pack)
   ix. Input 5: Temperature (External)
3. BASIC Stamp
   i. Output 1: (Relay) SPDT Forward/Reverse select
   ii. Output 2: (Relay) CPU Fan On/Off
   iii. Output 3: (Relay) ATV On/Off
   iv. Output 4: (Relay) Payload Arm & Camera servos On/Off (if this cannot be achieved with servo controller)
   v. Output 5: (Audio) Horn (Piezo buzzer)
   vi. Output 6: (Relay) CPU reset
   vii. Voltage: 12V ATV System Battery
   viii. Voltage: 7.2V Main Propulsion Battery
   ix. Voltage: 5V Aux Power Battery
   x. Current: 12V ATV System Battery
   xi. Current: 7.2V Main Propulsion Battery
   xii. Current: 5V Aux Power Battery
4. Compass