Adventure Box:  
Add RTC  
Add LCD  
Add light sensor  
Add temp sensor  
  
Priorities:  
1) Finish hardware  
    - GND  
    - SDA  
    - SCL  
    - 5V remote  
    - GND remote  
    - A2  
    - A3  
    - D2  
2) Check all components individually  
3)   
4)   
5)   
  
Shopping list:  
- Silicon  
- Epoxy (check if I have first)  
- External plug  
  
Setup complete  
If trip in progress (EEPROM):  
Resume trip!  
If no:  
End trip?  
-- Respond appropriately --  
  
Press select to begin  
  
If input requested:  
On start --> Trip Begin Menu  
During trip --> MAIN MENU  
- Check light level continuously until input complete  
-- Turn on backlight if necessary  
  
rtcBool = false  
gpsBool = false  
  
Trip Begin Menu:  
"Adventure Box vX.X"  
Initialize stuff and print results  
Check for GPS/RTC and set bools  
"Ready!"  
...  
Begin new trip  
Etc.  
Etc.  
---> Begin new trip:  
Prompt for trip name  
"Current date/time"  
If no GPS or RTC:  
- "No GPS or Date Stored."  
-- Enter manually  
-- Wait for signal  
Create folder on SD  
Assign log file  
Assign info file  
Save current trip folder to EEPROM  
If no GPS:  
"Waiting for GPS signal..."  
"Click to begin manually."  
If GPS:  
If no RTC:  
- Set RTC  
--> If click or GPS:  
Trip start  
Set EEPROM for trip in progress  
  
While trip log running:  
If button pressed:  
- MAIN MENU  
  
Main Menu:  
1) Current Position/Data  
- Real-time display  
2) Mark Position  
- Input menu  
3) Historical Data (Trip high/lows?)  
- Display data  
4) End Trip  
- "Are you sure?"  
- Set EEPROM accordingly  
  
Data acquisition fxn:  
Acquire data  
Check for high/low  
- Altitude  
- Speed  
- Temp  
If high/low exceeded:  
Set new  
  
Menu fxn:  
Send menu type as argument  
  
LCD display fxn:  
Send string(s) as argument  
Check lengths  
Scroll as necessary

**CHARACTER LIBRARY**

Letters (Capital):

65-90

Letters (Lower-case):

97-122

Numbers:

48-57

Punctuation:

33-47, 58-64, 91-96, 123-126

Special:

128-159, 161-255