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Weekly Report 6

I ordered some of the sensors that I'll need this week but I'll need to design a couple boards for some of the parts that I need. It looks like I'll need to make a board for the optical isolator and another board for IR or CdS line tracking. An additional board might be necessary if serial connections aren't sufficient for the sonar sensors. I ordered 5 sonar so I'll need an analog multiplexer if I want to connect them to the A/D.

Finally, I met with Dr. Schwartz about the navigation control (other than the joystick). Initially I planned to navigate by choosing destinations on a laptop that communicated via XBee or ANT with DMD. Dr. Schwartz suggested that an alternative interface might use air pressure so the user could control DMD using his/her mouth. I ordered a pressure sensor so I'm going to try to make my own sip/puff system - sips or sucks could be used to scroll through a list of options on the LCD screen and puffs or blows could be used to select the desired option. Sip/puff systems retail for around \$350 and up and have been used to control things like sailboats and Xbox controllers.