Memorandum

To: R.M. Schafer

From: Smart Windows

Date: January 21, 2010

Subject: Meeting Two Minutes

1.) Window prototypes from Solar Shades
   a. Two designs: horizontal slats and round
   b. Round design seems to be the better design
      i. Easier to drive → See **Figure 1** for Prof. Schafer's design

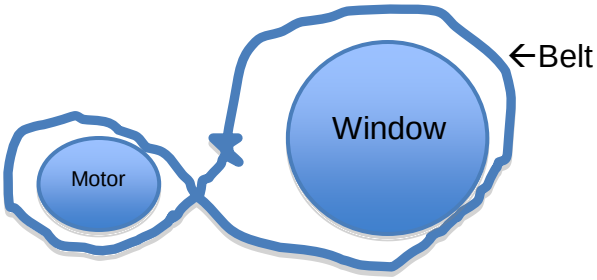

Figure 1

      ii. Looks more appealing
   c. We will want to due Venetian blinds as well
2.) Light Sensors
   a. I^2C and A-to-D converter based designs are available
   b. Do not choose based on ease of use
   c. Choose based on which mounts on the window better
   d. **Action:** Dave and Kelley: Choose a part by Monday
3.) PC-software
   a. We will use the FTDI-to-COM port solution
   b. Andy does not want to use Virtual Studio
   c. **Action:** Andy: Communicate with COM port by next meeting
4.) Microcontroller/Wireless
   a. PAN addressing: want to be more clever than just a thumb wheel switch
      i. Broadcast message searching for possible networks
      ii. Return message from the base station assigning addresses
      iii. Will need a "sync" button on the window
   b. Daughter card
      i. Use Prof. Schafer's design exactly for correct impedance matching
      ii. He will send us the files if we ask
   c. **Action:** Dave and Kelley: Start adding to code library

5.) Motors/Gearing
   a. Tommy tried several of Prof. Schafer's motors
   b. Suggestion: use motor stall as a safety mechanism rather than a clutch
   c. Motors from Solar Botics will be ordered
      i. Clint can place the order if he is given a spreadsheet
      ii. Check to make sure shipping cost is reasonable
   d. Check for chain/belt combo to go with the motor
   e. Ask Prof. Bronnel where motors can be purchased locally
   f. **Action:** Tommy: Order motors, related belt/chain, and h-bridge next week
6.) Batteries
   a. This decision will be made once the motor is selected
7.) Low Level Design
   a. This will be easier if we keep a record of the reasons behind each decision we make.