11/21/16 Assembly

Class Notes

Wiring pi library

Wiring pi

* Step 1: Update OS
  + Fails if needed update
  + Code:
    - Sudo apt –get update
* Step2: get git tools
  + Code: Sudo apt –get install git
* Step 3 git clone of the writing Pi library
  + Code: git clone git://git.dragon.net/
  + //Derogative
* Step 4: Compile writing Pi
  + Cd into wiringPi and run ./dbuild.sh
* Step 5: Test it out.
  + gpio readall
    - Outputs connections
* Step 6: Close remaining open files
  + Code: sudo shutdown –r now
    - -r flags reboot

Generating colors in pins

* Set voltage in order to set color
  + Blk 10^0
  + Brown 10^1
  + Red 10^2
  + Orange
  + Yellow
  + Green
  + Blue Violent
  + Gray
  + White 10^10
* Can control voltage of pins through command line
  + Code:
    - gpio readall
  + The voltage for the breadboard can be set to off by decreasing it.
    - 1 = 3.3v
    - 0 = < 2.0v
* Each pin must be set too output

Setting values to pins

* Utilizes keyword gpio
  + gpio
    - Outputs additional flags for pins
  + Gpio readall
    - Outputs pin connections
  + Gpio write
    - Writes values into gpio
      * Ex) gpio write 21 1
        + Writes the value of 21 on the first pin
* Keywords
  + wirintPi.Setup();
    - Sets up connections
  + pinMode(pin#, mode)
    - mode = INPUT/OUTPUT
  + digitalWrite(pin#, Low/High)
    - Low = 0
    - High = 1
  + DigitalRead( pin# )
    - Returns low(0)/high(1)
  + delay(pause in ms)
  + –lwiringpi
    - Tells g++ to include writing pi library