

HOW TO SET-UP PORTFOLIO

* NOT IN PARTICULAR ORDER

① PROJECT SECTION

- Description
 - Deliverables
 - Milestones
- } Provided by Spalletta

② FINAL PROJECT REPORT

- ### ③ Project Management Concepts
- EXTENSION / CHANGES
LINKS → NOTEBOOK, SLO'S

② NOTEBOOK

- Weekly Summary (Blog / couple Sent.)
- Scanned Pages → Portfolio
↳ one page for every class day.

③ SLO'S → STUDENT LEARNING OUTCOME

- Page for EACH Program SLO
- Add statement
- This course contribution
↳ Artifact

④ VIDEO SITE

1. Project Proposal
2. Project Report / Progress Report → Supervisor
3. → TEAM
4. Project sales to a customer
5. Final Report Supervisor
6. Project Closeout Report.

COMMENTS:

GRADES ARE SOLELY BASED ON PORTFOLIO.

① HARDWARE NEEDED

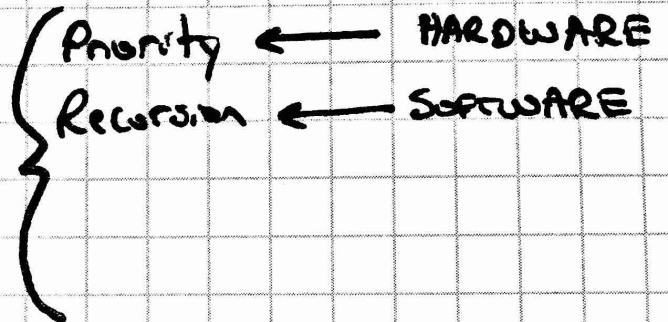
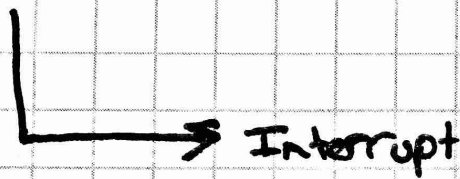
8/30/16

- NEW CO₂ + O₂ SENSORS
- SPECTROMETER
- NEW VOLTAGE REGULATORS FOR LED'S

8/31/16

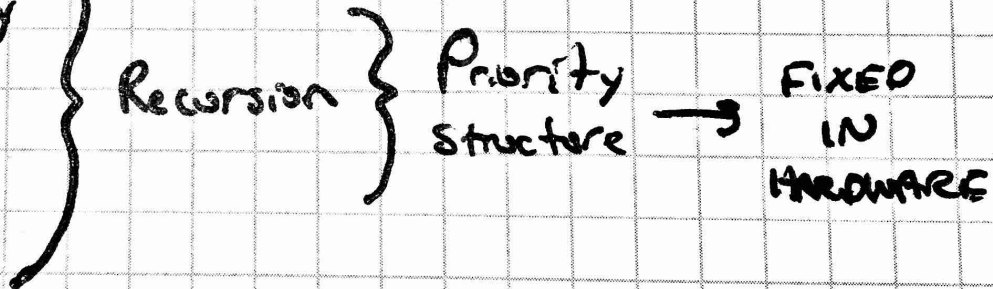
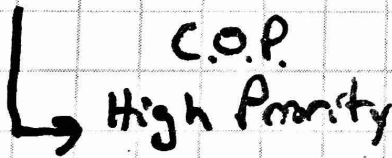
Real Time Systems

EVENTS



MASK INTERRUPT

NON-MASK INTERRUPT



9/6/16

Pressure Sensor

- Sensitivity? Too much
or
Too little?
 - Hysteresis?
 - Need more Information.
 - PART #?
-

LUX / LUMOSITY SENSOR

9/13/16

NOTES:

- 3.3V
 - Blue SDA → Blue Ethernet
 - Green SCL → Green Ethernet
 - 3.3V → ORANGE Ethernet
 - Ground → Brown / Black
-

Circuit Design

9/13/16

- # of Sensors?
 - 2 - Temp / Humidity
 - 2 - LUX / Lumosity
 - 1 - O₂
 - 1 - CO₂
 - 1 - spectrometer.

9/15/16

- Circuit Design 95% Complete.
- Sensors Removed For Testing
- Cleaned up/ Reorganized Wiring
- Everything will be "Plug & Go"

To Do List:

- Find New Voltage REGULATORS
- Get Code For sensors (CO₂ & O₂)
- Incorporate code into 1 library
- Rewire sensors & install
- Collect Radmys

NOTES: Collect All DATA SHEETS.

↳ Record Different Voltage needs For sensors

RESEARCH VARIOUS V-REG'S. NEED TO
CONVERT 12V → 5V capable of 6+ AMPS.

9/22/16

- Find out what to expect in changes of CO_2 + O_2 within chamber.
- Find out how to program Spectrometer.
-

I found out the problem with the greenhouse
found how the spectrometer works

Potential:

Has the ability to become a decent model of an actual greenhouse once proper sensors are required.

UPDATES

9/29/16

- ALL SENSORS TESTED.
- ALL FUNCTIONAL BESIDES CO₂, O₂

↳ Research O₂, CO₂ more.
Will begin to reconstruct once time is available.

Circuit is designed "Arduino Falcon"

- ALL SENSORS MAKE "DBUG + GO" For future trouble shooting + better documentation.



TO DO LIST:



- ① UPDATE NOTES CODE
 - a. Remove O₂, CO₂
 - b. Assign New Pin #'s to sensors, + FANS.
 - c. Test For Error

- ② Reconstruct Greenhouse.

SENSOR PIN OUTS ON ARDUINO

10/6/16

② LUX / LUMOSITY → "DAISY CHAINED" SDA + SCL (I₂C)

↳ NEED TO DEFINE
NEW ADDRESS'S FOR
EACH

② TEMP / HUMIDITY (DIGITAL) → "A0", "A1"

↳ NEED TO "DIGITAL.WRITE"
IN CODE.

③ FANS (DIGITAL) PWM

↳ "LF" → 2

↳ "RF" → 3

↳ "BLOWER" → 4

③ TRANSQUERES (PWM) → "5, 6, 7"

① PH SENSOR → "A2"

② LED'S → TO BE DETERMINED

* NEED NEW VOLTAGE REGULATORS