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.

8/30/16

① HARDWARE NEEDED
- NEW CO_2 & O_2 Sensors
- SPECTROMETER
- New Voltage Regulators For LED's

8/31/16

Real Time Systems

EVENTS → Interrupt

Interrupt { Priority ← HARDWARE; Recursion ← SOFTWARE }

MASK INTERRUPT

NON-MASK INTERRUPT

↳ C.O.P.
High Priority

{ C.O.P. High Priority; Recursion } { Priority Structure → FIXED IN HARDWARE }

9/6/16

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

9/13/16

LUX / LUMOSITY SENSOR

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 - O_2
1 - CO_2
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 (CO_2 & O_2)
- Incorporate Code into 1 library
- Rewire sensors & Install
- Collect Readings

NOTES: Collect All DATA SHEETS.

↳ Record Diffent 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 green house

Found how the spectrometer works

Potential:

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

UPDATES

9/29/16

- ALL SENSORS TESTED.
- ALL FUNCTIONAL BESIDES $Co2$, O_2

↳ Research O_2, Co_2 More.

Will Begin to reconstruct once time is available.

Circuit is designed "Arduino Falcon"

- ALL SENSORS MADE "PLUG + GO" For future Trouble shooting + Better Documentation.

TO DO LIST!

① UPDATE NATES CODE
   a. Remove O_2, $Co2$
   b. Assign New Pin #'s to sensors. + FANS.
   c. Test For Error

② Reconstruct Greenhouse.

10/6/16

SENSOR PIN OUTS ON ARDUINO

(2) LUX/LUMOSITY → "DAISY CHAINED" SDA + SCL (I_2C)

↳ 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

↳ "BIDNER" → 4

(3) TRANSDUCERS (PWM) → "5, 6, 7"

(1) PH SENSOR → "A2"

(2) LED'S → TO BE DETERMINED

★ NEED NEW VOLTAGE REGULATORS.