

2020 PC/CP320 Integration Project Checklist (Fall)

- Basic requirements

A. Sensors and Actuators

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|----|--|-------------------|
| 1. | gets input from environment | Alcohol / Ethanol |
| 2. | makes changes in environment based on inputs | |
| 3. | distance sensor
(ultrasonic) | |
| 4. | <i>other</i> input device
(i.e. <i>multivalued</i>) | MQ3 |
| 5. | one motor
(stepper or servo) | |
| 6. | <i>User</i> output
(i.e. <i>proportional</i> operation) | |

B. Software

1. interacts with *operator* (on _____ computer)
2. modular
(explicit functions for *each* _____ device)
3. no magic numbers _____
4. self-explanatory variable _____
and function names

C. Documentation

1. circuit overview _____
2. clear block diagram
(identifying signal types) _____
3. *explanation of each block*
(3× weight) _____

Note: All interactions with the operator and the environment must be related; environment input should affect output to operator and input from operator should affect output to environment.