Internet of Things and Rapid Prototyping

Midterm 1 Rubric

Performance to Expectations

* Meets – meeting the “Meets” expectations criteria will result in 80% of the total available points for a category.
* Exceeds – Performance above meets will result in 90% to 100% of the available points.
* Any “Meets” items not achieved will result in a deduction of points at the discretion of the instructor/assistant.

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| Category | Points | Exceeds | Meets |
| Product Proposal / Plan | 5 | Design discussed with at least three peers with plan and feedback documented. Outline of project plan with daily milestones. | Design discussed with at least three peers with plan and feedback documented. Outline of project plan with key milestones. |
| Product Design | 5 | Thorough conceptual drawings, hand drawn schematics, flowchart of overall functionality. | Conceptual drawing, flowcharts, and/or schematics in notebook. |
| Manual/Automatic Modes | 10 | Create a full featured manual mode (individual control of Hue and Wemos) and create one or more automatic modes based on user selections or external inputs. | Simple automatic mode, as well as basic manual mode (i.e., user presses a button and something happens). |
| Hue Lights | 10 | Control all 6 Hue Lights in the room in both manual and automatic mode. Demonstrate the ability to control color, brightness, on/off, and individual lights. | Demonstrate control of at all 6 Hue Lights in the room. May be missing color or brightness control. |
| Wemo Devices | 10 | Control more than 2 wemo devices in both manual and automatic mode. | Control at least 2 wemo devices. Demonstrate the ability to switch them on and off. |
| OLED Display | 5 | Product / prototype completed as designed and operable. Parts properly secured. Product had a finished appearance. | Product / prototype mostly completed as designed and mostly operable. Some parts may be loose. Product had a unfinished appearance. |
| Other Features | 10 | In addition to three components from class, demonstrate use of a component that has not already been covered in class. | Demonstrate use of at least three components: LEDs, buttons, NeoPixels, Encoders, servo motors, BME/BMP280. |
| Code Quality | 10 | Code strictly follows style guide. Code is well formatted. Proper use of functions and global/local variables. Code is logical and easy to follow. Is appropriately, but not excessively, commented. | Code follows style guide, is reasonably commented, and compiles. |
| FUSE Makerspace | 10 | In addition to 3D printed part, use laser, wood shop, metal shop, etc. to create a more finished appearance to for the controller. | 3D printed and laser cut components added to project. |
| Hackster.io | 10 | Hackster.io story detailed with description of motivation, capabilities, images, screenshots, etc. Fritzing, schematics and 2D/3D product files are viewable in Hackster.io (.stl, .jpg.) without need to download. | Minimal Hackster.io sections completed. Story section describes product / functionality. |
| Github | 5 | Github is updated as each new functional is added. Commit comments are easy to follow. Detailed README.md outlines project. | Github is committed daily. Proper created and used .gitignore. |
| Presentation | 10 | Presentation is clear/readable, includes: team member introduction, idea/motivation in non-technical terms, functionality, challenges during development and how they were overcome, inclusion of design files, code samples, flow charts, outline of future steps. | Presentation covers team introduction, project summary, challenges, contact info. |