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| Project Name: Oracle Fountain | | | | | | | |
| Student Name: JP Funk | | | | Capstone Date: May 17th | | | |
| Project Motivation and Overview:  The Oracle Fountain is a IoT smart indoor water feature with Lighting and Sound components that would create Tranquil and Relaxing Ambiance for interior spaces. The fountain would have 3 main modes: 2 Water Pump/Speed (high, low) Levels, Lighting for atmosphere (nighttime) and Sound (Looping soundscapes).  Minimum Features:   * Waterfall pump, LED light show * Dashboard * Button less interface/controls * 3D Printed Housing, with one upper waterfall ring   Desired Features:   * MP3 player with speaker * 2 modes water flow * 3D Printed Housing, with 2 upper waterfall rings * Auto and Sleep Mode   Stretch Goal Features:   * Phone App subscription for sound loops and additional content \* * Patent, and produce for market | | | | | | | |
| Anticipated Components:   * TOF sensors (at least 1), small board w/ P2, water pump, relay, neopixel ring \*OLED display * 3D Printed sections: Base, lower ring, top ring, LED module (top) * Waterfall components: Tubing, connectors, water diffusers * Electrical wiring, power supply (s) | | | | | | | |
| Concerns and Considerations (Project Risks and Potential Mitigations)   * getting TOF sensors to work properly for controls * 3D printed housing functional for waterfall feature * automated modes, sleep | | | | | | | |
| Other Information: | | | | | | | |
| Project Implementation Timeline: | | | | | | | |
| Tasks | 12-APR | 19-APR | 26-APR | | 3-May | 10-May | 17-May |
| Project Plan | X |  |  | |  |  | Presentation |
| JP\_Capstone Oracle Fountain | Submit Project plan summary | Prototype case with TOF, starting code | Design and build 3D Waterfall housing | | Write/implement code | Production of presentation Media, Video, Hackster.io etc. |  |
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| Capstone Presentation |  |  |  | |  |  | X |