# WBS by Phase

smartsheet

| | Task | Description | Assigned To | Status | % Complete | Start Date | End Date | Duration | Progress | At Risk | Resources |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Brainstorm** | | | Blocked | 100% | 10/10/24 | 10/16/24 | 7d | ● | ☐ | |
| 2 | Set up a collaboration site | Github | Jingjie Ma | Complete | 100% | 10/10/24 | 10/11/24 | 2d | ● | ☐ | |
| 3 | Generate 3 Projects and Choose one | Think of the concept of operation; List sensors, controllers and actuators | 1456635785@qq.com, Jamal King, leandro@pdx.edu, | Complete | 100% | 10/13/24 | 10/16/24 | 4d | ● | ☐ | |
| 4 | **Product Design Specification** | | | In Progress | 92% | 10/17/24 | 10/23/24 | 7d | ◑ | ☐ | |
| 5 | Summary with concept of operations& Design Specification | Summarize the design's functions | leandro@pdx.edu | Complete | 90% | 10/17/24 | 10/19/24 | 3d | ◑ | ☐ | |
| 6 | Market Analysis | Advantages | starry@pdx.edu | Complete | 100% | 10/17/24 | 10/18/24 | 2d | ● | ☐ | |
| 7 | Project Requirements | Must, May, Should sections | Jingjie Ma | Complete | 90% | 10/17/24 | 10/19/24 | 3d | ◑ | ☐ | |
| 8 | System Architecture | Build L0&L1 Diagram | 1456635785@qq.com | Complete | 90% | 10/20/24 | 10/23/24 | 4d | ◑ | ☐ | |
| 9 | **Analog interface circuitry** | | | In Progress | 90% | 10/24/24 | 11/03/24 | 11d | ◑ | ☐ | |
| 10 | Design circuitry(1.0) | Complete the detailed design and verify it in | Jingjie Ma, leandro@pdx.edu | Complete | 100% | 10/25/24 | 10/29/24 | 5d | ● | ☐ | Kicad;LTSPICE;Laptop |
| 11 | Design PCB layout (1.0) | Design PCB layers in accordance with | Jingjie Ma, leandro@pdx.edu | In Progress | 80% | 10/30/24 | 11/03/24 | 5d | ◑ | ☐ | Kicad;Laptop |
| 12 | Purchase Components | Mega Starter Kit; Myo Ware Sensor;LCD12864 | Jingjie Ma, starry@pdx.edu | In Progress | 80% | 10/24/24 | | | ◑ | ☑ | Elegoo; Amazon |
| 13 | **Digital Circuitry and Circuit test** | | | In Progress | 24% | 11/03/24 | 11/19/24 | 17d | ◔ | ☐ | |
| 14 | Connectivity test | Test of circuit with voltage inputs. | Jingjie Ma, leandro@pdx.edu, | Complete | 100% | 11/03/24 | 11/06/24 | 4d | ● | ☐ | Breadborad; Mega2560; |
| 15 | Input Signal management | Capture the envelop of muscle signal; Set the threhold of fatigue signal | 1456635785@qq.com, Jingjie Ma, leandro@pdx.edu, | Not Started | 0% | 11/07/24 | 11/11/24 | 5d | ○ | ☐ | IEEE; Muscle Sensor; Breadboard; Mega 2560 |
| 16 | Signal processing with Arduino | Provide PWM signal for motor and LED | 1456635785@qq.com | Not Started | 0% | 11/07/24 | 11/11/24 | 5d | ○ | ☐ | Arduino; Muscle Sensor; |
| 17 | LCD Waveform Display | Provide digital signal to LCD to creat waveform | 1456635785@qq.com | Not Started | 0% | 11/12/24 | 11/16/24 | 5d | ○ | ☑ | Arduino; Mega 2560; |
| 18 | Overall System Test | Test the product's function | 1456635785@qq.com, Jingjie | Not Started | 0% | 11/17/24 | 11/19/24 | 3d | ○ | ☐ | Arduino; Controller; |
| 19 | **Modification** | | | In Progress | 38% | 10/24/24 | 11/25/24 | 33d | ◔ | ☐ | |
| 20 | PDS Modification | Add L1; Specify the function of our design; List requiremnets in must, may and should | 1456635785@qq.com, Jingjie Ma, leandro@pdx.edu | Complete | 100% | 10/24/24 | 10/27/24 | 4d | ● | ☐ | Googlesheet |
| 21 | Schematic Modification | Add LCD module; Add protective resistor and circuit | Jingjie Ma, leandro@pdx.edu | Complete | 100% | 10/31/24 | 11/03/24 | 4d | ● | ☐ | Kicad |
| 22 | PCB Layout Modification(2.0) | Use separate layers for power and ground to reduce noise ; Use design software to detect | Jingjie Ma, leandro@pdx.edu | Not Started | 0% | 11/07/24 | 11/10/24 | 4d | ○ | ☑ | Kicad |
| 23 | Final CAD | Check the Manufacturability | 1456635785@qq.com, Jingjie | Not Started | 0% | 11/17/24 | 11/20/24 | 4d | ○ | ☐ | Kicad |
| 24 | Board Fabrication | Weld the circuit board | 1456635785@qq.com, Jingjie | Not Started | 0% | 11/21/24 | 11/25/24 | 5d | ○ | ☐ | FAB; Board |