**S.A.R.I.B.O.**

***(Systematic and Automated Regulation of Irrigation systems for***

***Backyard farming Operations)***

An Arduino-based Internet-of-Things Irrigation System designed for Backyard Farming

Submitted to:

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**Gantt Chart**

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| **Activities** | **Weeks** | | | | | | | | | | | | | | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** |
| Planning |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Design |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Development |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Work Break Down Structure**

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| **Task No.** | **Description** | **Duration (Days)** | **Predecessor Task** |
| 1 | Prepare project titles | 3 |  |
| 2 | Initial project title approval | 1 | Task 1 |
| 3 | Choosing final project title | 2 | Task 2 |
| 4 | Final Project title approval | 1 | Task 3 |
| 5 | System analysis and design | 7 | Task 4 |
| 6 | Material listing, canvassing and acquisition | 9 | Task 5 |
| 7 | Programming | 56 |  |
| 8 | Creating and Revising individual prototype systems | 56 | Task 6, Task 7 |
| 9 | Creating the physical prototype | 21 | Task 8 |
| 10 | Initial Prototype Build and Testing | 7 | Task 8, Task 9 |
| 11 | Prepare questionnaires for initial interview and ocular inspection. | 2 | Task 10 |
| 12 | Initial Beta Testing in the site | 14 | Task 11 |
| 13 | Revision of the Prototype | 14 | Task 12 |
| 14 | Final Consultation | 1 | Task 13 |
| 15 | Final System Design | 4 | Task 14 |
| 16 | Final System Defense | 1 | Task 15 |
| **Total:** | | **105 Days** | |

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| **Choosing Final Project Title** | |
| Start: Day 5 | ID: 3 |
| Finish: Day 6 | Dur: 2 |

**Task Patterns:**

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| **Prepare Project Titles** | |
| Start: Day 1 | ID: 1 |
| Finish: Day 3 | Dur: 3 |

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| **Initial Project Title Approval** | |
| Start: Day 4 | ID: 2 |
| Finish: Day 4 | Dur: 1 |

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| **Final Project Title Approval** | |
| Start: Day 7 | ID: 4 |
| Finish: Day 7 | Dur: 1 |

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| **System Analysis and Design** | |
| Start: Day 8 | ID: 5 |
| Finish: Day 14 | Dur: 7 |

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| **Material listing, canvassing and acquisition** | |
| Start: Day 15 | ID: 6 |
| Finish: Day 23 | Dur: 9 |

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| **Programming** | |
| Start: Day 24 | ID: 7 |
| Finish: Day 80 | Dur: 56 |

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| **Creating and Revising Individual Prototype Systems** | |
| Start: Day 24 | ID: 8 |
| Finish: Day 80 | Dur: 56 |

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| **Creating Physical Prototype** | |
| Start: Day 58 | ID: 9 |
| Finish: Day 80 | Dur: 21 |

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| **Final Consultation** | |
| Start: Day 95 | ID: 14 |
| Finish: Day 95 | Dur: 1 |

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| **Initial Prototype Build and Testing** | |
| Start: Day 72 | ID: 74 |
| Finish: Day 80 | Dur: 3 |

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| **Final System Design and Testing** | |
| Start: Day 96 | ID: 15 |
| Finish: Day 100 | Dur: 4 |

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| **Initial Beta Testing** | |
| Start: Day 81 | ID: 12 |
| Finish: Day 94 | Dur: 14 |

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| **Final System Defense** | |
| Start: Day 101 | ID: 16 |
| Finish: Day 101 | Dur: 1 |

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| **Revision of the Prototype** | |
| Start: Day 81 | ID: 13 |
| Finish: Day 94 | Dur: 14 |

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| **Prepare questionnaires for interview and initial ocular inspection** | |
| Start: Day 77 | ID: 11 |
| Finish: Day 80 | Dur: 2 |