Interim Deliverable #1

Design Group B9

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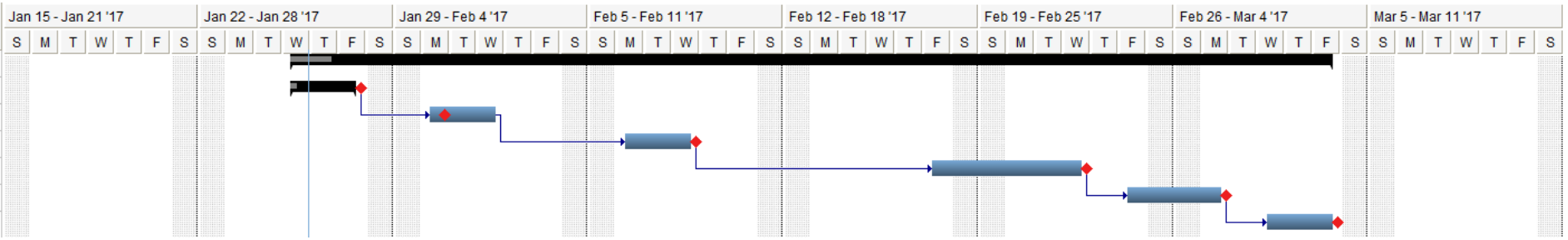
Gantt Diagram
Risk and Mitigation Document
Resources Document

Gantt Diagram
Made with Gantter

This will be further developed as the project continues, Interim Deliverable#1 has the following Indented items that are hidden in the below picture:

1. Create Gantt Chart
2. Risk and Mitigation Document
3. Resources Document

		Name	Duration	Start	Finish	Predecessors	Resources
1		**Interim Deliverables**	**28d?**	**01/25/2017**	**03/03/2017**		
2		**Interim Deliverable #1**	**3d?**	**01/25/2017**	**01/27/2017**		
10		Interim Deliverable #2	3d	01/30/2017	02/01/2017	2	
11		Interim Deliverable #3	3d	02/06/2017	02/08/2017	10	
12		Interim Deliverable #4	4d?	02/17/2017	02/22/2017	11	
13		Interim Deliverable #5	2d?	02/24/2017	02/27/2017	12	
14		Interim Deliverable #6	3d?	03/01/2017	03/03/2017	13	



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Risk and Mitigation Document

Schedule Risks

- Long Term Incapacitation of team member
  - Severity: Severe
  - Probability: Extremely Low
    - Mitigation: Currently No plan in place for this contingency.
- Short term illness of Team member
  - Severity: Moderate;
  - Probability: Moderate
    - Mitigation: could potentially delay project, likely to require additional work by other team members of accommodate
- Project interruption due to other obligations
  - Severity: Low
  - Probability: High
    - Mitigation: Likely to require modification of meeting times and schedule flexibility on behalf of all team members. Record meeting minutes and develop meeting agenda. Schedule regular weekly meetings.

Scope Risks

- Incorrect Interpretation of Design Objectives
  - Severity: High
  - Probability: Low
    - Mitigation: Clarify misconceptions in project scope should they arise, modify design as necessary.
- Failure to Communicate
  - Severity: Moderate
  - Probability: Low-Moderate
    - Mitigation: Frequent and thorough team meetings, documentation of team progress and access to said documentation.
- Lack of applicable experience and knowledge.
  - Severity: Moderate
  - Probability: High
    - Mitigation: Attend workshops and split up responsibilities. Spend time learning required information and collaborate.
- Failure to set reasonable objectives
  - Severity: Moderate
  - Probability: Low
    - Mitigation: Frequent team meetings that evaluate team progress.

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Resource Risks

- Poor Time Management
  - Severity: Very High
  - Probability: Unknown
    - Mitigation: Institute rigorous standards and hold members accountable to such standards.
- Equipment Failures
  - Severity: High
  - Probability: High
    - Equipment and materials are likely to fail. If this happens more must be acquired. To mitigate this, careful prototyping and thoughtful designs should be prioritized. To avoid large scale catastrophes; compartmentalize the design process.
- Embezzlement of team resources
  - Severity: Very High
  - Probability: Very Low
    - Mitigation: It is the opinion of the group that this will be addressed if appropriate.
- Civil unrest in Qatar leads to regime change and team member is installed as the Emir of Qatar
  - Severity: Very High
  - Probability: Infinitesimal
    - Mitigation: After extensive and heated discussion, it was decided that no contingency would be developed to mitigate this risk.
- Uneven distribution of group work
  - Severity: Moderate
  - Probability: Moderate
    - Mitigation: Scrum Board, frequent team meetings.
- Purchasing incorrect materials
  - Severity: High
  - Probability: Low
    - Mitigation: Team Communication.
- Unavailability of materials
  - Severity: High
  - Probability: Low
    - Mitigation: flexibility and creative design. Plan design around available materials

Resource Document

Budget is $200 USD

Note: Costs are estimates at this point

Tangible Resources

- Arduino microcontroller
  - Arduino IDE
- Computers for development of Arduino software
  - 6 Computers
- Super Absorbent Polymer
  - Don't Have
  - Cost: ???
- Materials to create saline solutions for tests and prototyping
  - Likely going to need salt (Assume NaCl)
  - Beakers/Cups
  - Cost: $5.00
- Scale for salt measurement
- Materials to Build physical components of device
  - Cost: ~100 USD
- Tools
  - Makerspace
  - Toolbox (Andrew)
- Github Repository/Organization
  - https://github.com/DesignGroupB9/MiniProject1
  - Free

Intangible Resources

- People
  - Tanner Finney – Chemical Engineering
  - Dave Robins – Computer Science
  - Andrew Johnson – Civil Engineering
  - Jacob Rankin – Chemical Engineering
- Work Locations
  - Library
  - Makerspace