

Fall Work Breakdown Structure

Table 1 shows the tasks needing to be completed in the Fall 2019 semester, their expected start and due date, and the percent it has been completed. This chart is used to create the Gantt chart.

Table 1: *Fall 2018 Tasks*

TASK NAME	START DATE	END DATE	DURATION (DAYS)	DAYS COMPLETED	DAYS REMAINING	TEAM MEMBER	PERCENT COMPLETE
Customer Needs	9/14	9/21/2018	8	8	0	Lead: Oscar	100%
Work Breakdown Structure	9/14	9/21/2018	8	8	0	Lead: Jacob	100%
VDR1	9/28	10/2/2018	5	5	0	All	100%
Functional Decomposition	9/28	9/28	1	1	0	Lead: Jacob & Oscar	100%
Targets	9/29	10/19	21	21	0	Lead: John	100%
Advisor Meeting October	9/30	10/31	32	32	0	All	100%
Concept Generation	10/1	10/29	29	29	0	All	100%
Innovation: Stage 1 Application Deadline	10/2	11/2	32	32	0	Jacob	100%
Concept Selection	10/3	11/2	31	31	0	All	100%
Bill of Material	10/4	11/9	37	37	0	Oscar	100%
VDR2	10/5	11/15	42	42	0	Oscar	100%
Risk Assessment	10/6	11/16	42	42	0	Lead: Oscar	100%
Advisor Meeting November	10/7	11/28	53	53	0	All	100%
VDR 3 Poster Presentation	10/8	12/6	60	60	0	Lead: Oscar	100%
Spring Project Plan	10/9	12/7	60	60	0	Jacob	100%
Sponsor Meeting	10/10	11/30	52	52	0	All	100%

Figure 1 shows the Fall 2018 semester Gantt chart.

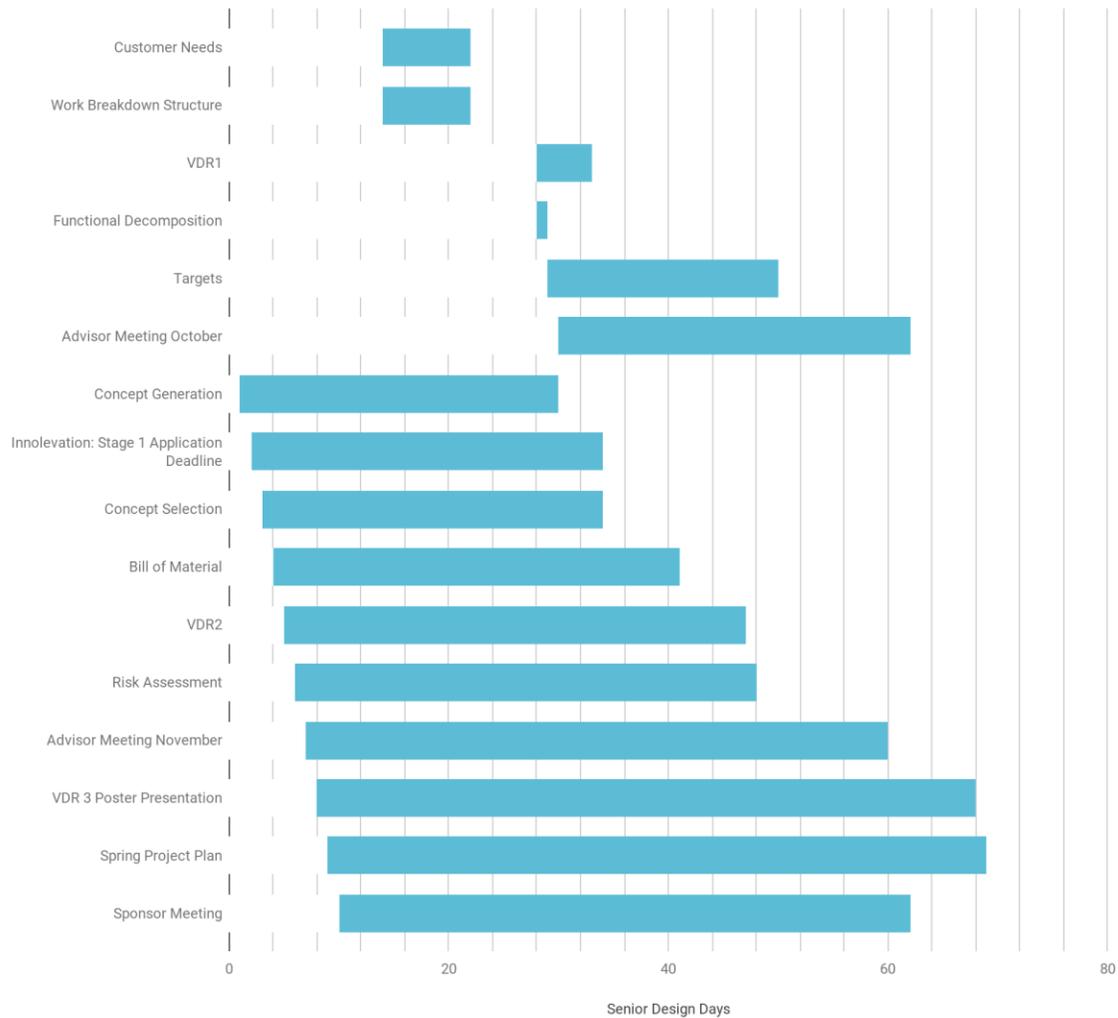


Figure 1: Fall 2018 Semester Gantt Chart

Tasks/Assignments:

1. Customer Needs

Due Date: 09/21/18

- 1.1 Talk to customers and get feedback.
- 1.2 Analyze and separate needs from the wants.
- 1.3 Talk to the Advisor.
- 1.4 Talk to the Sponsor.
- 1.5 Talk to personally

2. VDR1

Due Date: 09/28/18

- 2.1 Prepare the project brief.

- 2.2 Prepare a summary and a background of the project.
- 2.3 Project scope.
- 2.4 Prepare the customer needs.
- 2.5 Functional decomposition.
- 2.6 VDR1 - Final Revision (Rev 2) - 10/04/18

3. Functional Decomposition

Due Date: 09/28/18

- 3.1 Break down most general motions that will need to be incorporated
- 3.2 Break down all parameters or constraining factors (Weather)
- 3.3 Break down all possible failures and give a function to help

4. Targets

Due Date: 10/19/18

- 4.1 Fall over resistive to wind, overloading, etc.
- 4.2 Collision avoidance during transport to and fro designated pick up place.
- 4.3 Easy and safe to use.
- 4.4 Defined pick up point.
- 4.5 Durable to weather extremes.

5. Concept Generation

Due Date: 10/26/18

- 5.1 Research already existing projects related to automated waste cart.
- 5.2 Layout multiple options for project.
- 5.3 Look into multiple different shaped waste containers.
- 5.4 Refine and provide justification for excluding ideas

6. Concept Selection

Due Date: 11/02/18

- 6.1 Produce various ideas for the project.
- 6.2 Compare the ideas and choose the best one.
- 6.3 Determine whether full scale or scale model will be developed

7. Bill Of Material

Due Date: 11/09/18

- 8.1 Decompose all mechanisms and devices to bare parts
- 8.2 Research to find multiple different materials to use for these parts
- 8.3 Choose the best material based on cost, durability, and its mechanical properties
- 8.4 Research to find the best prices on parts to keep cost at a minimum

8. VDR2 Due Date: 11/12/18
- 7.1 Summary from VDR1.
 - 7.2 Prepare the functional decomposition.
 - 7.3 Prepare the targets.
 - 7.4 Prepare the concept generation.
 - 7.5 Prepare the concept selection.
9. Risk Assessment Due Date: 11/16/18
- 9.1 Layout all possible failure scenarios
 - 9.2 Identify possible hazards and who might be harmed due to these hazards
 - 9.3 Evaluate the risk and decide on control measures
10. VDR3 Due Date: 11/30/18
- 10.1 Prepare a brief report about the project.
 - 10.2 Prepare a quick summary from VDR1 and 2.
 - 10.3 Prepare the bill of material.
 - 10.4 Prepare the risk assessment.
 - 10.5 VDR3 Poster Presentation - 12/06/18
11. Spring Project Plan Due Date: 12/07/18
- 11.1 Layout progress made up to this date
 - 11.2 Break down next spring semester milestones and deliverables
 - 11.3 Set a timeline of when milestones in the spring semester should be accomplished