
DPM Design Group 11:

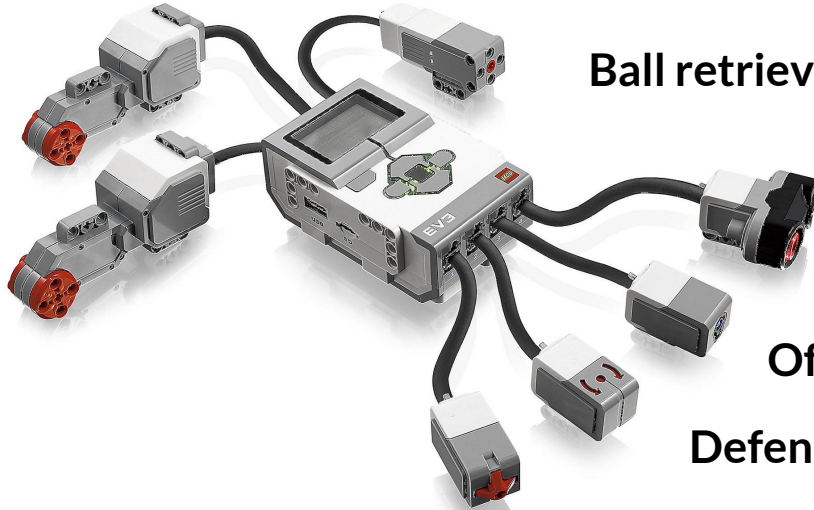
Robot Name: **LeBot James**

Alex
Durham
Ethan
Ian
John

ECSE-211: Design Principles & Methods
Design Project

Tasks Completed:

March 24 - March 31



Ball retrieval (Software & Testing)

Obstacle avoidance (software & testing) & finalization of navigation software

Offensive main method

Defensive main method

Testing: Navigation (w/ obstacles), ball retrieval, calibrating throwing speeds/angle with desired distance

Recent Tasks:

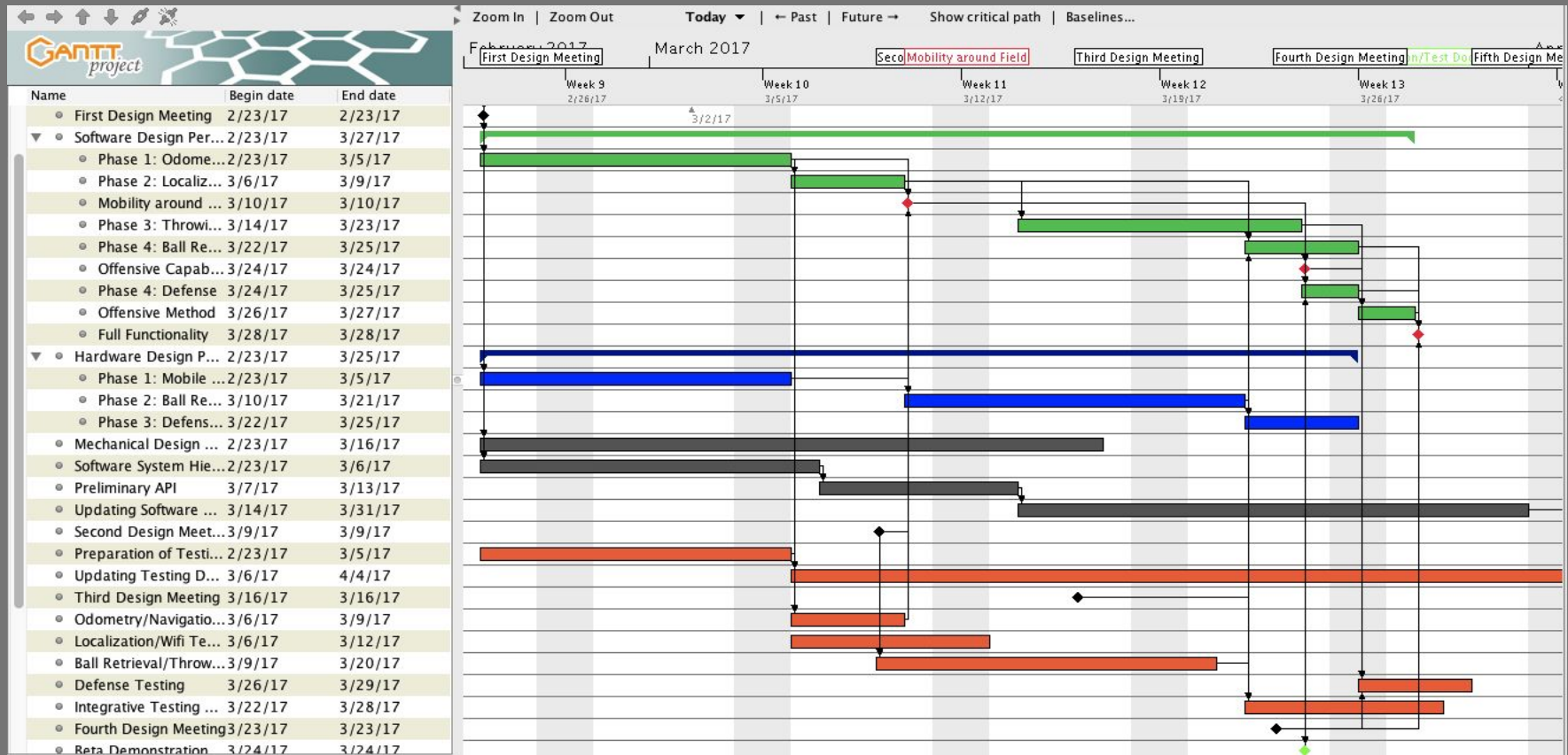
Task:	Gantt Due Date:	Completed?	Incomplete?	On Schedule?
Final Mechanical Design (LDD)	3/24/17	X		Yes
Offense Integrated Software	3/27/17	X		Yes
Defense Integrated Software	3/25/17	X		Yes
Full Functionality	3/28/17	X		Yes
Ball Retrieval Software	3/25/17	X		Yes
Integrative Testing	4/3/17		X	Yes
Obstacle Avoidance Software	3/23/17	X		Yes
Updating Final Documents	4/6/17		X	Yes
Poster Design / Printing	4/4/17		X	Yes

Budget Update:

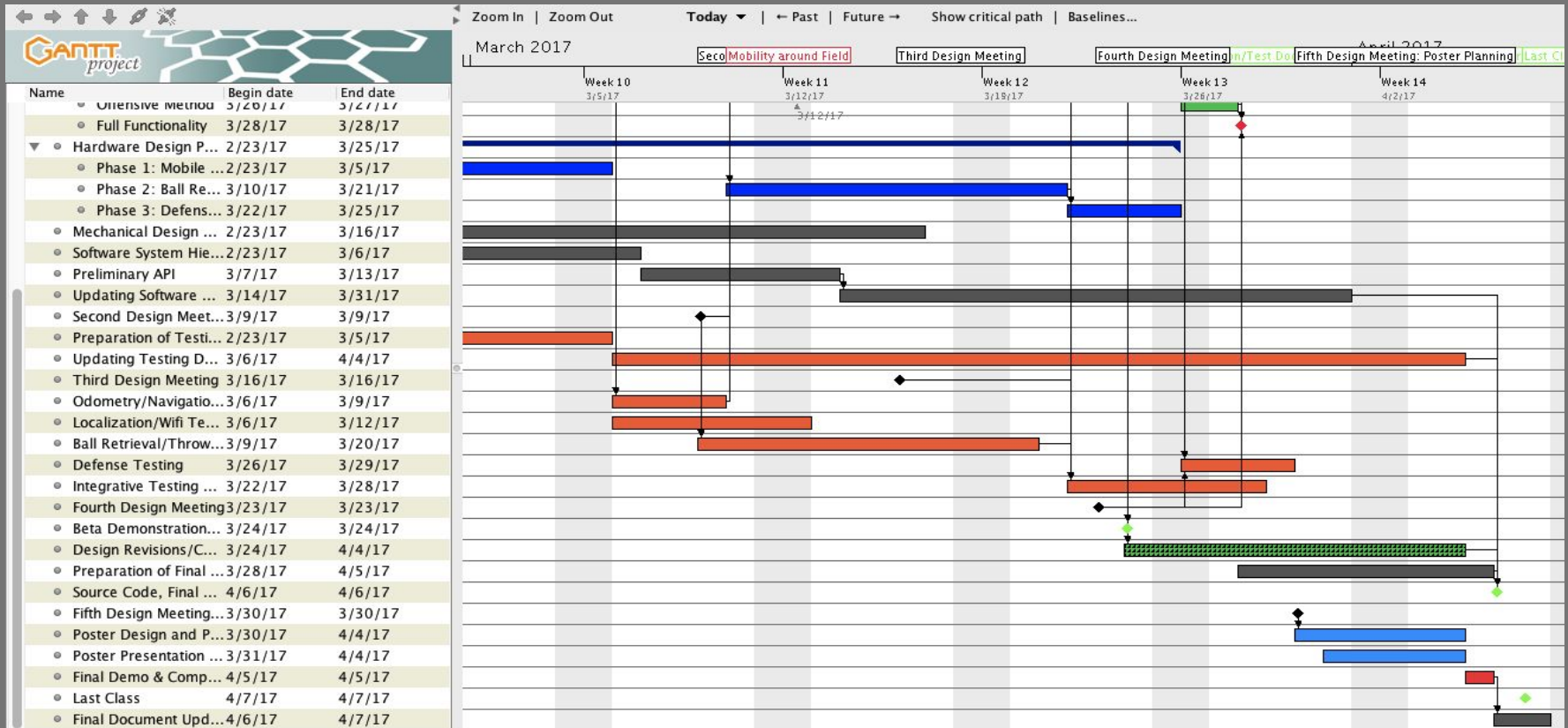
Team Member:	Week 1	Reading Week (Overtime)	Week 2	Week 3	Week 4	Week 5	Total: (excluding reading week)
Alex	7	5	3	6	13	14	43
Durham	8	2	4	8	15	10	45
Ethan	2	4	7	8	13	12	42
Ian	5	4	3	6	15	15	42
John	8	6	2	6	18	12	46
						Team Total:	218

- Currently under budget: **81%** of budget consumed approx. **80%** through the project
 - Remaining budget for integrative testing
 - Remaining budget for final documentation
 - Remaining budget for poster design and presentation practice
- Anticipate approx. 15 hours/team member before completion of project
 - 10 before competition
 - 5 for final report/documentation

- Gantt Chart V5.0 (up to now)



Gantt Chart V5.0 (future)



What's Left?

March 31 - April 7

-Integrative Testing

-Final Documentation

-Poster Design & Production

Integrative Testing

Entire Offensive Method:

- Retrieve Ball
- Navigate
- Shoot Ball
- Repeat

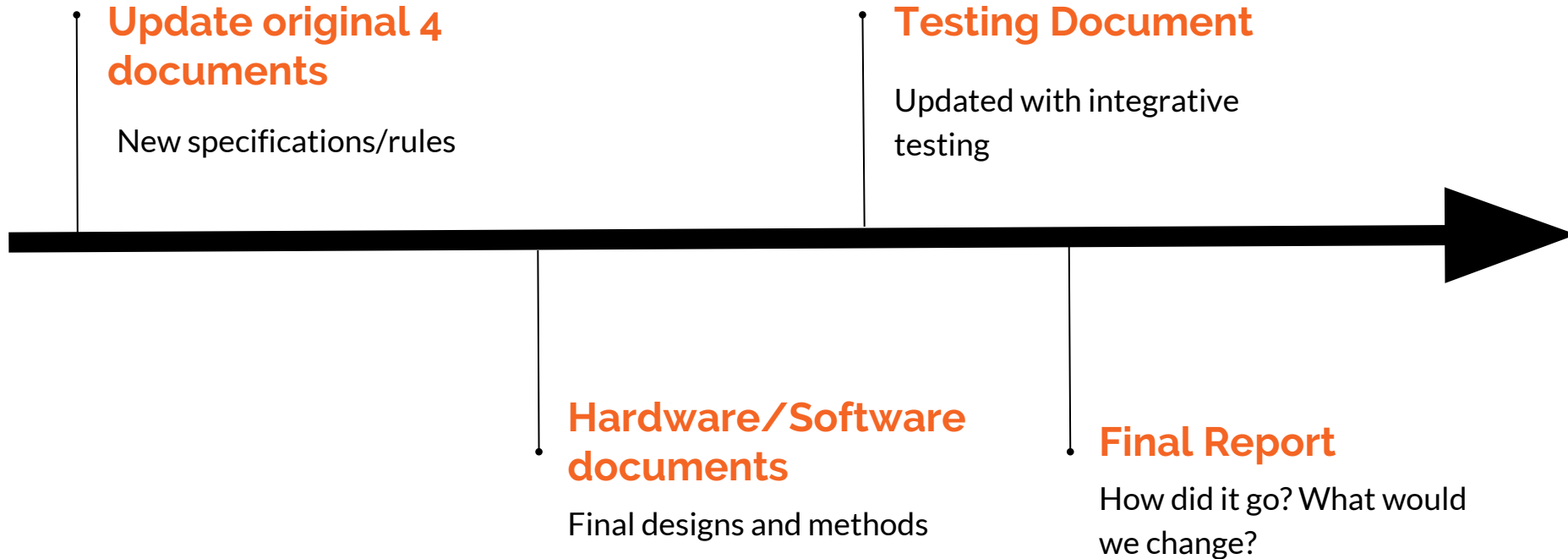
Entire Defensive Method:

- Navigate to defensive position
- Continue defense for 7 minutes

Final Component Tests:

- Rechargeable vs. AA battery life
- Light sensor calibration in competition room

Documentation and Reports



Hardware Document Update: March 31, 2016

What happened this week:

- Updates to current (final) hardware design
- Increased explanation/reasoning behind design features
- Expanded introduction section
- Reformatted ball launching section

What's left to do:

- Fix final bugs in the software

Software Document Update: March 31, 2016

What happened this week:

- Finished up final software design
- Created sequence diagrams for all functionality
- Created class diagram for each java class

What's left to do:

- Fix final bugs in the software
- Update the final software architecture for the full system

Testing Document Update: March 31, 2016

What happened this week:

- Tested navigation from different corners with obstacles.
- Tested different speeds and angles for the throwing arm.
- Tested ball retrieval from different corners.

What's left to do:

- System testing with AA batteries
- Mock competition Trials



Questions:

- **What makes a good poster?**
 - What elements will judges look for?
 - Is information or design weighted heavier?
- **Is there a rubric for how points are awarded in the competition?**
- **Will we have access to the 3x3 field BEFORE the competition?**
 - How else can we test full functionality?
 - We'll put it together, early, ourselves if need be!

Any questions for us?