SPRINT #2 REVIEW

VR WHEELCHAIR TRAINING SIMULATION

*HASNAIN BHARMAL

*JOHN (READE) CORR

JULIA DOBBS

JOSHUA MORA

SUBODH NEUPANE

OCTOBER 14, 2024

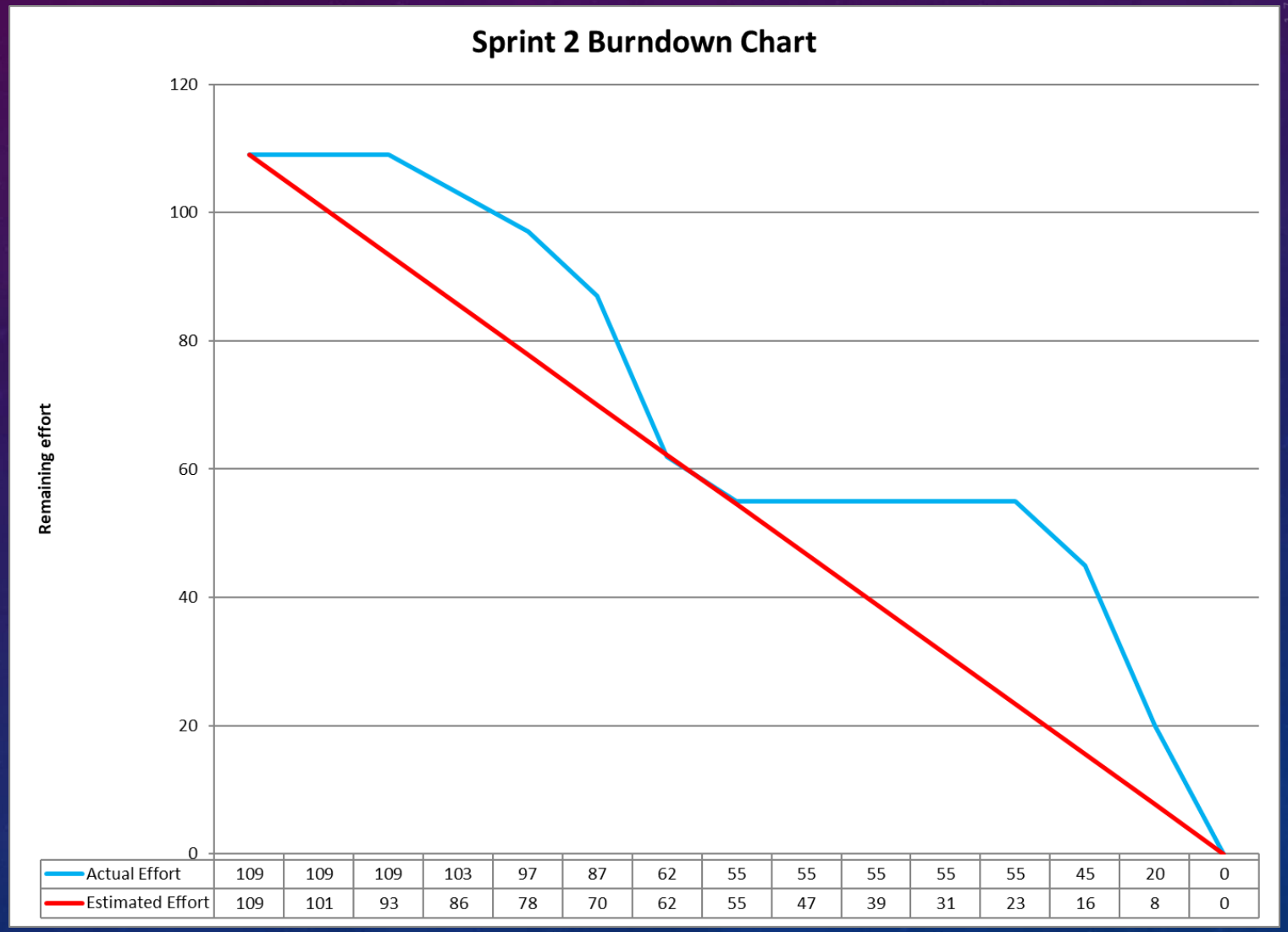
SPRINT GOAL

The goal of Sprint #2 was to become more familiar with programming in the Unreal Engine and to determine what types of motors/actuators to use for the wheels and tilt table.

PRODUCT BACKLOG ITEMS

Backlog Item	Estimate	Actual
Practice with Unreal Engine	60	30
Research Wheel Motor Options	12	6
Research Tilt Table Actuator Options	12	6
Create Systems Requirements Specification	25	25
Total Hours:	109	67

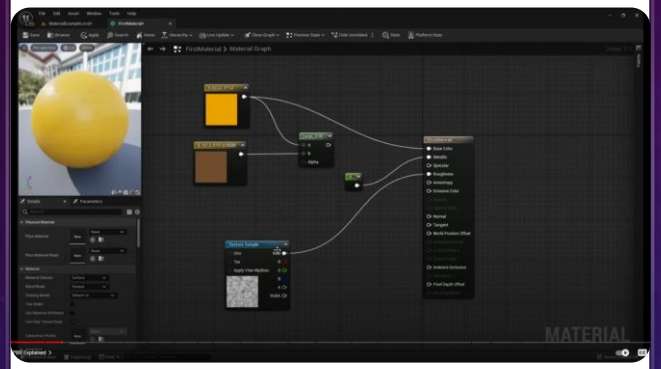
SPRINT BURNDOWN CHART

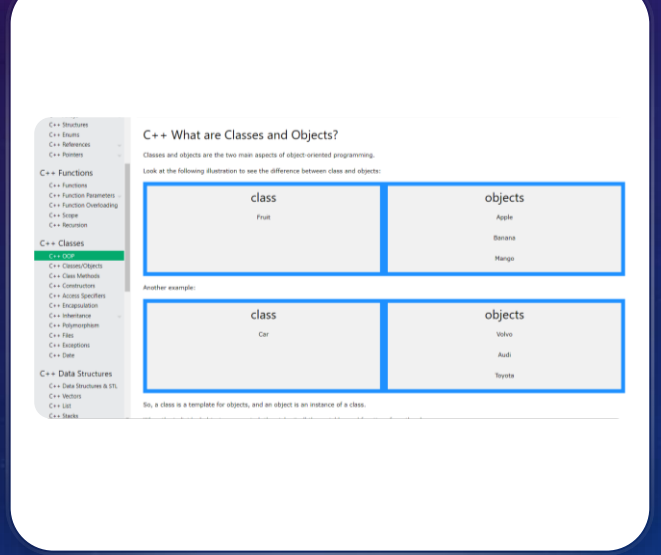


Actual Effort	109	109	109	103	97	87	62	55	55	55	55	55	45	20	0
Estimated Effort	109	101	93	86	78	70	62	55	47	39	31	23	16	8	0

WHAT DID WE DO?

- Team meetings occurred on Fridays
- Practiced with Arduino
- Practiced Unreal Engine
- Researched hardware options
- Worked on Documentation (SRS)





DEMO

- Plan to use Linear Actuators and Brushless DC Motors
- Completed Basics of C++ and will now plan to dive deeper by learning Classes and Data structure
- Finished Learning Basic UI Section of Unreal Engine.

QUESTIONS?

SPRINT BACKLOG: PRACTICE WITH UNREAL ENGINE

Backlog Item: Practice with Unreal Engine	Estimate	Actual
Make a list of resources from which to learn	6	3
Create and debug a basic project to get used to the environment	18	9
Improve and debug the initial project by filling out specs and scaling data	18	9
Apply concepts which will be used in the final SD1 project	18	9
Total Hours	60	30

SPRINT BACKLOG: RESEARCH WHEEL MOTOR OPTIONS

Backlog Item: Research Wheel Motor Options	Estimate	Actual
Research Budget Options	3	2
Research Performance Options	4	2
Research Durable Options	3	1
Compile data and decide on top 1 or maximum 2 contenders	2	1
Total Hours	12	12

SPRINT BACKLOG: RESEARCH TILT TABLE ACTUATOR OPTIONS

Backlog Item: Research Tilt Table Actuator Options	Estimate	Actual
Research Budget Options	3	2
Research Performance Options	4	2
Research Durable Options	3	1
Compile data and decide on top 1 or max 2 contenders	2	1
Total Hours	12	12

SPRINT BACKLOG: CREATE SYSTEM REQUIREMENTS SPECIFICATION

Backlog Item: Create System Requirements Specification	Estimate	Actual
Consider Hardware requirements	11	7
Consider Software findings and requirements	11	6
Formatting and Documentation	3	12
Total Hours	25	25