

Reflection on Iteration # 4

Context Project: Health Informatics

Group: House Gryffindor

User Story#	Task#	Task Assigned To	Estimated Effort per Task (in hours)	Actual Effort per Task (in hours)	Done (yes/no)	Notes	Github Issue #
As a user, I want to control movement by using different hand gestures, so that I can move around by myself	Hand gesture based movement <ul style="list-style-type: none">- Create code for turning left and right based on different gestures.- Create code for moving forward and backward on different gestures.	Wing, Matthijs	3h each	3h each	Yes	After figuring out how the bend values work, it was easy to implement, despite the problems with manus.	#10
		Viktor	4h	2h	Yes		
As a user, I want to be able to pickup and drop objects, so that I can have a real supermarket experience.	Object pickup <ul style="list-style-type: none">- When an object is picked up it should look like the user is actually holding the object inside his hand.- The user should get some kind of feedback when an object is picked up	Wing	6h	5h	Yes	Not able to call the vibration motor of the Manus VR glove, so feedback is not really possible.	#11
		Matthijs	4h	2h	No		

As a user I want to be able to pick up the basket with my hand and to use a shopping cart in the supermarket	Basket functionality						#12
	- When multiple objects are put in the basket it should look like they are next to each other	Magdalena	5h	5h	Yes		
	- Add functionality to pick up basket with manus	Magdalena	3h	3h	No	This will be continued in the next print.	
	- Add shopping cart with the same basic functionalities as the basket	Viktor	4h	2h	Yes	Easier than predicted.	
As a client, I want the system that my customers use to be reliable so that patients can be treated effectively with the simulation.	Testing						#13
	- Create test project for testing c# code	Team	7h each	4.5h each	partly	See problems for description of problem	
	- Integrate Unity Cloud	Maria	3h	6h	No	See problems for description of problem	
As a developer, I want to have a document explaining the interrelation of core components in the system, so that I know how the system works.	Architecture Design						
	- Complete the Architecture Design document to the current state of the system.	Viktor	1.5h	1.5h	Yes	There were some small changes in the design of the system, but the crucial functionality has remained the same	

As a user I want to feel like i'm shopping in a real supermarket	3D scene and objects						#14
	<ul style="list-style-type: none"> - Make a shopping cart - Modify the environment so that the user can go to the counter and buy something 	Maria	3h	3h	Yes	A shopping cart was created but will probably not be used in the further development of this system. It eventually turned out that this additional functionality is not yet needed	#7
As a developer, I want to use design principles in my code so that I have a rigid and stable system.	Design Principles						#8
	- Refactor existing code (if possible) so that these adhere to the SE practices taught.	Team	4h each	3h each	Yes		

Additional hours worked

The hours logged for each task are not representative for the total amount of hours worked. We have also planned meetings in which we gather to discuss the Sprint Backlogs, Sprint Reflections and worked on (unplanned) tasks that were not in the Sprint backlog but were necessary for the development of the project. These hours we've spent as a team so each member has also worked these additional hours.

Day	Event	Hours	Github issue #

Main Problems Encountered

Problem 1 : Testing issue

Description: When executing test cases with NUnit, visual studio gave several exceptions. “SecurityException: ECall methods must be packaged into a system module”, was one of these errors. After some research, we found out this was related to trying to make new unity objects outside of the unity engine, which is not allowed. After this, we tried to use the NSubstitute framework, but it turned out that this framework only works for mocking interfaces.

Reaction: We will continue to work on this problem and try to implement test cases (as far as this is actually doable) during the next sprint.

Problem 2: Monday of The Holy Spirit (whit monday)

Description: We couldn't work with the hardware on monday. Because of this holiday the TU Delft was closed so there was no place to meet and work together.

Reaction: We had to share the manus vr more with the other group. So we made progress, but not as much as we wanted to. You can see this as well in our reflection, since we've logged less hours than expected.

Problem 3: Unity Cloud Build

Description: Unity Cloud Build does not accept .blend files, but our whole environment is made of .blend files. We tried to export all blend files to .fbx files but something went wrong in Unity and the whole environment crashed.

Reaction: We're still going to try to get Unity Cloud Build working for next sprint, looking into alternatives for models perhaps.

Adjustments for the next Sprint