

## Sprint Retrospective, Iteration #7

Context Project: HI

Group: CondExt Team (2)

User Story	Task	Responsible	Assigned To	Estimated Effort	Actual effort	Done ?	Notes	Commit
As a user I want to be able to pick up items in a physically realistic way so that I can interact with the world in a more natural way.	Implement grabbing (both single- and dual handed)	Matthias	Matthias	6 hours	6 hours	yes	We now use separate strategies for single and dual hand grab. This is because the conditions for a grab differs for single and dual handed grabs.	8e4821f
	Implement proper finger detection on object during grab	Luke	Luke	6 hours	7 hours	yes	This went through several iterations and methods before we got the detection we wanted.	37b498c
	Implement releasing (both single- and dual handed)	Jasper	Jasper	6 hours	5 hours	yes	We now use separate strategies for single and dual hand grab. This is because the conditions for a release differs for single and dual handed grabs.	89418b8
	Write tests for grabbing script	Matthias	Matthias	6 hours	-	no	The grab code is constantly changing (even in structure) and still in development, so testing at this stage will require us to change all the tests continuously.	-
As a user I want the object I am holding to properly follow my fingers so that I can easily move it how I want	Update the IK script to stop the goal from moving past a certain point.	Jasper	Jasper	5 hours	3 hours	yes	This is used in the dual hand grab to prevent the hand from passing through an object.	43c5ffa
	Implement method which makes the object follow the mean of the fingertips	Jasper	Jasper	8 hours	6 hours	no	Instead of this and the task below we use a the parenting method and use the palm to get the right position and rotation.	89418b8
	Implement hinge joints and spring joints during grab to let object follow hand realistically	Luke	Luke	10 hours	6 hours	no	Instead of this and the task below we use a the parenting method and use the palm to get the right position and rotation.	89418b8
As a developer I want to know how well my code is tested and covered so that I can improve	Find test coverage (Manually)	Arjan	Arjan	8 hours	6 hours	yes	Finding the test coverage did not take as long as expected, as there were not that many tests yet. Test coverage had to stay up to date while adding tests, which took some more time.	4c401b5 (initial commit, constantly updated)

the test and code quality.	Improve current tests according to the coverage	Arjan	(Everyone) Arjan	4 hours per person	16 hours Luke: 6 hours	wip	Writing tests sometimes took quite some time, as I had to learn to perfectly understand code that I had not written. Luke: Test for Highlighter written, had to use Humble Object Pattern to test properly, but took some time to separate logic from Unity related code. I plan to do this for more code next week.	64e1583 Luke: 605f618
As a user I want a realistic environment to interact in	Fill remaining shelves with products	Arjan	Arjan	4 hours	-	no	Tasks with a higher priority were done instead.	-
	Add sounds to the supermarket scene	Arjan	Arjan	3 hours	1 hour	yes	Background noise was the only sound that could really be added this sprint.	9c3aba2
As a user I want to receive feedback on my virtual actions to improve the interaction with the virtual world	Make the gloves vibrate on hand collider contact	Arjan	Arjan	4 hours	2 hours	yes	After the implementation of the vibration function last week, this was not that hard.	ad1e310
	Make the gloves vibrate in a distinct pattern whenever an object is picked up	Bart	Bart	4 hours	-	no	A complicated pattern was not necessary, a short pulse sufficed	-
As a user I want my virtual body to stand on the ground, not hover	Make sure that the lowest foot of the kinect model always touches the ground	Luke	Luke	2 hours	-	no	Moved to next week	-
	Fix the hip distort bug when the kinect loses track of the user.	Jasper	Jasper	1 hour	30 minutes	yes	Had to edit some code from the kinect sdk to fix this issue	6c82fd2
As a user I do not want to make a mess of the virtual supermarket so that I can have a clean environment to perform actions in.	Add dynamic physics to the supermarket environment	Bart	Bart	8 hours	7 hours	yes	Initially wanted to this this by scripting but eventually this was done by changing other classes and changing the behaviour of the palm collider	d124db
	Create script that enables physics when an object is grabbed	Bart	Bart	5 hours	1 hours	yes	This is solved differently, the colliders in the arm are now in another layer so it cannot interact with colliders	d124d
As a developer I want to constantly improve my skills.	Attend Project Skills lecture	Luke	Everyone	2 hours	2 hours	yes	Happy fun times.	-
As a developer I want to test my product with multiple test subjects before release	Arrange meeting with W.P./CleVR to test our software with an oculus rift	Bart	Bart	2 hours	1 hours	yes	Picking it up on monday, will arrange it with group 1, HI_HG.	-

	Create tasklist for test subjects	Matthias	Matthias	2 hours	1 hour	yes	List is still quite simple, can be improved according to ID principles	-
As a user, I want to be able to put my groceries in a shopping cart	Create a shopping cart model in blender	Bart	Bart	4 hours	7 hours	yes	Had to upgrade my blender skillset first	356fc8f1a
	Create working (moving etc) shopping cart object in unity	Matthias	Matthias	4 hours	6 hours	yes	Cart works and is able to move, but jitters a lot and does not behave realistically. Will be continued next week.	49ba294

## Tasks that appeared during the sprint

User Story	Task	Responsible	Assigned To	Estimated Effort	Actual effort	Done?	Notes	Commit
As a developer I want to know how well my code is tested and covered so that I can improve the test and code quality.	Repair CloudBuild	Arjan	Arjan	N/A	4 hours	yes	CloudBuild started failing halfway through the sprint. It told us a test was failing, while there were no failing tests locally. Had to build older versions on a seperate branch to find out which test was breaking everything.	8cc4c46
As a developer I want to check with the stakeholders if our project is advancing according to their wishes	Create short video for the friday meeting with CleVR	Arjan	Arjan	N/A	2 hours	yes	<a href="https://www.youtube.com/watch?v=sRg50ktuUuw">https://www.youtube.com/watch?v=sRg50ktuUuw</a>	-
	Attend the short meeting with CleVR	Matthias	Everyone	1 hour	1 hour	yes	Got some useful feedback.	-
As a developer I want to test my product with multiple test subjects before release	Arrange a day on which we can use a high-end PC to test with	Bart	Bart(2x) Ruud Arjan	-	1 hour	wip		-

## Additional tasks for TI2806

User Story	Task	Responsible	Assigned To	Estimated Effort	Actual effort	Done?	Notes	Commit
As a developer I want a clear overview of and reflection on my tasks this sprint	Create Sprint plan #8	Bart	Everyone	1 hour	2 hours	yes	Needed to revise planning because of big amount of deadlines coming sprint	-
	Create Sprint reflection #7	Jasper	Everyone	1 hour	1 hour	yes		-

## General notes:

1. Found out that the right glove can actually vibrate as well. :D

## Problems:

1. Problem: CloudBuild failed on tests that were not actually failing locally.  
Solution: Find out which test was failing the cloudbuild, and editing this test so that cloudbuild could handle it as well. In the end, it turned out that there were actually two problems: the ManusVibrateTest did not work on cloudbuild, and the KeyboardSimulator plugin also did not work on CloudBuild.
2. Problem: Collision normals cannot be used without applying physics  
Solution: We did not use normals and instead require the user to grab the object with both their thumb and another finger.
3. Problem: Luke missed the CleVR meeting.  
Solution: Other group members filled him in on the situation (and we beat him up afterwards).