# HCI & UXD Coursework 2
Interface Design for Innovative Smart Product

Modern handheld and wearable devices (such as Smartphones, Tablets, Smart Watches etc.) and intelligent products such as smart fridges, have a variety of functions as well as other capabilities and limitations. Many smart devices are capable of voice and video communication, internet browsing, "geo-location" and that can operate to some extent autonomously.

Typical devices at present include the Apple iPhone and iPad, and tablet devices such as the Samsung Galaxy tablet. The term can also refer to a ubiquitous computing device: a device that exhibits some properties of ubiquitous computing including artificial intelligence. Smart devices can be designed to:

- support a variety of features
- support a range of properties pertaining to ubiquitous computing
- be used in any combination of physical world, human-centred environments and distributed computing environments.
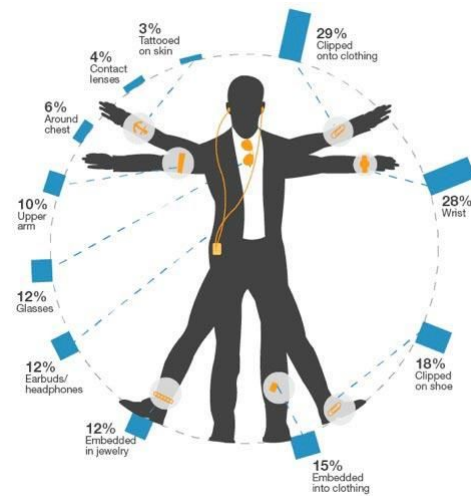
There is an enormous range and variety of ubiquitous computing research and applications today. Recent innovations in mobile and sensor technologies allow for creating a digital representation of almost any physical entity and its parameters over time at any place. RFID technologies, for instance, are used to ground digital representations, which are used to track and geo-reference physical entities.

Assignment

In this assignment you are required to design the interface and user experience for an **innovative device or smart product** for a specific target audience. This can be **handheld**, **wearable, standalone or integrated**. Your goal is to be innovative and exploratory. This assignment is broken down into the following steps:

Component	Description	Marks
Smart Product or Device	**Describe** the product you are designing. What do you want it to do? For example, a smart fridge might include the following features in its interface: ● Displaying information regarding items that have passed their sell by dates, and those left in your fridge, ● connection to enable user to communicate with fridge. Take some time to discover the **key information** that will drive your design strategy. For example: Stakeholder Interviews - use these interview questions as a base to work from, i.e. anywhere between quick/unrefined and intensive user research. From your user research, you should construct **personas** and a journey map. Describe **3-5 potential users** or **Persona** and assess their user requirements for such a product. Produce a list of **user requirements** for the device or product, together with some usability criteria discussed during this module**.** Research similar products document some examples in your report. Seek out other sources of inspiration that you might find helpful. Describe your findings and any interesting, useful or insightful capabilities or technical aspects.	15
2 Alternative Designs	Develop two distinct alternative **designs** for the interface that meet your set of requirements. You can choose how to produce these design, from simply hand-sketching and scanning, to Microsoft Powerpoint, Google SketchUp, Balsamiq, Axure, Microsoft Visual Studio, **or other suitable tool** you wish to use. Produce several (enough to illustrate your designs effectively) **Wireframes** and some sample **Screens**. You should produce a number of displays **(minimum 6 screens/displays)** to illustrate the **user experience journey. Justify your design decisions**	50
Evaluation	Evaluate the two designs, using your usability criteria. Carry out a **Cognitive Walkthrough** or **Heuristic Evaluation** on your designs. Choose just one of these methods only and report on relevant aspects of your designs.	15
Conclusion	Choose the best design and provide a critical discussion of the main features. Justify your choice of chosen design and suggest future developments to enhance your design. Provide guidelines for designing a good user experience.	10
Presentation	Provide a short presentation (**not face-to-face**) describing your product. This can be in any suitable format you like. For example, you may choose slides (max 12), online animation, short video, web-based or text-based presentation. Include details of your main research findings and chosen design along with overview of conclusions.	10
	TOTAL	**100**

Design is iterative, so you may want to return to early elements of the process before you choose one of your alternatives

Submission Deadline: As specified on Moodle

Coursework should be submitted through Turnitin on Moodle. Any problems please email to **Linda Crearie (Linda.Crearie@uws.ac.uk)**

You are encouraged to submit before this date. In accordance with current University rules, late submission within the first week will be penalised by 10%, but will not be accepted thereafter. The University rules on plagiarism are quite clear. Plagiarism will automatically be marked at zero. If you make use of freely available images from the web, please include copyright information as required. Web references should state the full URL, title of site/page, and date & time accessed.

Assessment Criteria Reference Grid

Criteria	> 70 (A)	60-69 (B1)	50-59 (B2)	40-49 (C)	30-39 (D)	<30 (Fail)
meeting the brief of the assessment task	y	y	y			
lacking precision about the assignment, but just meeting the necessary criteria				y	y	
barely meeting the requirements set				y	y	
written in suitable format, language & an appropriate length	y	y	y			
clear, concise and well-structured report	y					
using relevant examples, analysed & critically evaluated	y	y				
wide range of recent, relevant & appropriate sources of information	y					
range of recent, relevant & appropriate reading		y				
references to literature not always critically evaluative, and may not always be appropriate to the argument			y			
some reading, not as wide, recent or relevant as possible			y			
limited references to reading				y	Very	
critical engagement with HCI theory & practice	y					
attempting to engage critically at points				y		
it fails to critically engage with ideas						y
it fails to critically engage with literature						y
it fails to display critical reflection						y
examples from practice, more descriptive than evaluative			y			
presenting arguments that are poorly backed by evidence;				y	y	
making assertions without providing evidence at points				y	y	
critical reflection throughout	y					
being descriptive or narrative rather than critically evaluative or analytical				y	y	
clear & appropriate relation of theory to practice	y	y				inappropriate
attempting to critically relate theory to practice			y	y		inadequate
critical understanding /insight into key issues	y					
critical understanding of key issues		y				
full bibliography & appropriate referencing	y					
adequate referencing and a full bibliography		y				
providing a basic bibliography			y			
inappropriate referencing				y		
lacks referencing or bibliography					y	y

Assignments gaining a mark of 70 and above (>70 Grade A3, >80 A2, >90 A3)
This grade will be assigned to work considered to be of a very high standard and meets every criterion, both generic and specific. Marks above 80 will only be given to work considered to be outstanding and original both in the way it is written and in its ability to integrate ideas, theory and practice.

Assignments gaining a mark of 60 - 69.99 (Grade B1)
This grade will be assigned to work which is considered to be of a high standard and which meets every criterion. It may not show the depth of understanding nor the breadth of reading as work graded with an A.

Assignments gaining a mark of 50 - 59.99 (Grade B2)
Work will be sound and meet majority of criteria with evidence of reading and attempt to link theory to practice with some success . May include work from own experience, at points more than purely descriptive.

Assignments gaining a mark of 40 - 49.99 (Grade C)
Work at this level will be of generally low standard and barely meet the stated criteria with limited evidence of reading and few attempts to link theory to practice. The work may be poorly structured and/or referenced.

Assignments gaining a mark of 30-39.99 (D)
Work at this level will barely meet the stated criteria. It will show little evidence of reading or attempts to link theory to practice. The work may be lack structure and/or referencing

Assignments gaining a mark of less than 30 (Fail)
Works achieving a mark lower than 30 will have failed the assessment.