School of Computer Science – Coursework Issue Sheet (required for each component)

Session	2018-2019	**Semester**	2
Module Name	Mixed Reality Technologies	**Code**	G54MRT
Module Convenor(s) (CW Convenor in Bold)	**Steve Benford**, Joe Marshall, Stuart Reeves,		

Coursework Name	CW1	**Weight**	50%
Deliverable (a brief description of what is to be handed-in; e.g. 'software', 'report', 'presentation', etc.)	The goal of Coursework 1 is to design, prototype, test and analyse an example mobile mixed reality experience and to document and critically reflect on this activity in a **written report** that will be submitted for assessment. The experience will be a mobile mixed-reality game that is designed to engage visitors to a museum. The key concepts and techniques that you require to achieve this will be introduced in lectures and supporting lab sessions. This coursework is worth 50% of the overall mark for the module. This and CW2 (worth the other 50%) provide the only formal assessment of the module.		
Format (summary of the technical format of deliverable, e.g. "C source code as zip file", "pdf file, 2000 word max", "ppt file, 10 slides max", etc.)	There is one key deliverable for Coursework 1: the **final report**. The *suggested* structure of the final report – which reflects the areas of assessment – is as follows: 1. **Title** – of your mixed reality museum game. 2. **Design sketch** a. A short text summary of the intended game, including who it has been design for b. A discussion of how the mixed reality game ideation cards shaped your design c. An annotated sketch of your concept, including images of the cards where appropriate 3. **Photostory** a. A photostory that shows the user experience b. Annotated with commentary, key design challenges, insights and decisions **4. Testing** a. A description of how your tested your prototype b. A summary of the issues that were revealed and a discussion of how these would be resolved in future iterations of the prototype (you do not need to have implemented the revisions). 5. **Critical reflection** a. A critical reflection on how your experience of design, prototype and testing relate to the HCI concepts covered in lectures. How were specific concepts useful (or otherwise) in informing your design or in explaining the results of testing. 6. **References** a. complete list of references to papers and other resources referred to in your report, with a full citation for each. As per the module specification**, the maximum length of final report is 2000 words** (excluding references and annotations to diagrams). The module convenor(s) reserve the right to ignore submitted material after the first 2000 words for the purposes of assessment.		

Issue Date	5th February 2019
Submission Date	15:00 30th March 2019
Submission Mechanism	Moodle
Late Policy **(University of Nottingham default will apply, if blank)**	Standard
Feedback Date	23rd April 2019
Feedback Mechanism	Moodle

Instructions	Your brief is to create a mixed reality game that can be played using a mobile device while exploring a nearby museum. The core idea is that players need to move to different locations around the museum in order to trigger appropriate and engaging digital gameplay on their device, for example revealing prompts, clues, collectable assets and so forth. This might utilise a combination of locative-technologies including the location interface on the phone and/or scanning augmented reality markers in order to trigger digital interactions. You will need to to: - **Design**: Use mixed reality game ideation cards to create an interesting and appropriate game design and document this as a *concept sketch*. - **Prototype**: Realise the core of your design as a prototype, either using either the specific authoring tools that we introduce in labs (and that don't require coding on your part) or using other platforms of technologies of your choice (e.g., if you prefer to code your own system). You will need to document your prototype as an *annotated photostory*, a series of photos presented in a comic-book style that show the user experience and are annotated with key design and technical information - **Test**: Describe the testing of your prototype and the lessons learned from this. - **Analyse**: critically reflect on and explain how your design, prototyping and testing were informed by or illustrate the key HCI concepts that were covered in lectures. Your design should: - Clearly demonstrate how digital media and interactions can be connected to physical locations in an appropriate and reliable way. - Be a game, though this can be lightweight in nature. Specifically, we are not anticipating that you will produce traditional videogame designs (multiple levels, extensive artificial intelligence, very complex rules, characters, rich 3D graphics and sound and so forth), but rather are looking for technically simple games that maximise the value of being connected to real world environments that represent much of the content (more of this in lectures). - Demonstrate the application of HCI principles and techniques as

	noted above.
Assessment Criteria	**Area:** DESIGN: Quality of the proposed concept as expressed in the design sketch using ideation cards **Weight:** 20% **Comments:** Including creativity and appropriateness of the design alongside an explanation of the ideation process using the mixed reality game ideation cards **Area:** PROTOTYE: Quality of the realisation as shown through an annotated photostory **Weight:** 40% **Comments:** A walkthough of your prototype as a photostory annotated with information about key features, challenges and technologies used. **Area:** TESTING: Quality of testing **Weight:** 15% **Comments:** A discussion of how you tested your prototype and an analysis of lessons learned **Area:** ANALYSIS: Quality of the critical reflection on HCI challenges **Weight:** 25% **Comments:** A written analysis of how you design, prototyping and testing were informed by or illustrate the key design concepts that were covered in lectures. Each area is graded according to the following levels, mapped to the standard University scale: **Grade Summary Mark Description** A+ Outstanding 90% warranting an A, and in addition exceptionally clear, original and/or deep treatment A Excellent/ Distinction 80% complete, sound, without flaws B Good/ Merit 65% a good and sound answer, but perhaps omitting some details or with small errors but correct method C Adequate/ Pass 55% adequate answer, dealing with key principles, but with omissions and error in non-critical aspects D Borderline/ Compensatable 45% a marginally acceptable answer, with at least basic coverage. E Poor/ Soft Fail 30% an unacceptable answer, for example with substantial errors and omission, but still with some reasonable elements F Very poor/ hard fail 15% and below unacceptable and with little merit in any element