Module Title	**Tangible Play**
Course Title	BA/ BSc (Hons) Game Design & Development
School	☐ASC ☒ACI ☐BEA ☐BUS ☐ENG ☐HSC ☐LSS
Division	Division of Creative Technologies School of Arts and Creative Industries
Parent Course (if applicable)	
Level	Level 6
Module Code *(showing level)*	AME_6_TPL
JACS Code (completed by the QA)	
Credit Value	20 CAT points
Student Study Hours	Contact hours: 48 Student managed learning hours: 152
Pre-requisite Learning	None
Co-requisites	None
Excluded combinations	None
Module co-ordinator	Siobhan Thomas, Course Director, BA / BSc (Hons) Game Design & Development Thomass5@lsbu.ac.uk
Short Description (max. 100 words)	So far, students have learned to design and create games at the desktop. Now we move away from the screen and venture into the real world. In this module, students meet with an industry client who will set a game brief they need to respond to by producing both an innovative accessible game prototype and a unique hardware input device for playing the game they've designed. This module asks students to push the boundaries of play and innovation and to consider the everyday landscape as a limitless playground, whilst meeting the requirements of an external client.
Aims	The aims of this module are to: • Learn about interaction design and physical computing • Make games from smart objects that interact with other objects, people and networks • Work collaboratively to produce innovative gameplay forms Respond creatively to professional briefs

Learning Outcomes (4 to 6 outcomes)	On successful completion of this module, students will be able to: 1. Understand basic concepts to make tangible objects "talk" and learn how to build and program an interactive device 2. Demonstrate technical proficiency with conductive and smart materials, industrial materials and electronics 3. Critically evaluate and apply principles of physical interaction design within play and game design projects 4. Creatively respond to a professional brief in a productive team work environment
Employability	Games are increasingly relying on physical computing to create new and complex physical interactions. Tangible game peripherals such as Rock Band's drum kit and guitar peripherals, the Wii Balance Board, and the PlayStation Move offer players possibilities of physical gameplay that greatly exceed those offered by the "traditional" joypad. Tangible play introduces students to the area of interaction design, and challenges students to push the boundaries of physical gameplay as they respond to a brief set by an industry client. This module will offer students a chance to develop a unique skillset that will increase their marketability in the game industry and highlight job possibilities in non-traditional game sectors.
Teaching and learning pattern	Contact hours includes the following: (please click on the checkboxes as appropriate) ☒Lectures ☒Group Work ☒Seminars ☒Tutorial ☐Laboratory ☒Workshops ☒Practical ☒VLE Activities
Indicative content	• Playground design: A guest lecture • Physical computing • Ubiquitous and pervasive computing • Smart Objects • Networks and connected play • Interfaces: physical, software, electrical • Arduino/Wiring, Processing and PHP
Assessment method (Please give details – of components, weightings, sequence of components, final component)	**Coursework 1** **Portfolio Assessment** • Collaborative game prototype (group assessment) • Game hardware/ Smart object (produced individually) • Supporting documentation • Weighting: 100%
Indicative Sources ***(Reading lists)***	• Games: Little Big Planet, PS3; Wii Fit, with Wii Balance Board, Kinect, Progress to 100, Johann Sebastian Joust • Igoe, T. (2007). Making things talk: Practical methods for connecting physical objects. Sebastopol, CA: Make:Books.

	• Banzi, M. (2009). Getting started with arduino. Sebastopol, CA: Make:Books. • Borenstein, G. (2012). *Making Things See: 3D vision with Kinect, Processing, Arduino, and MakerBot* (1 edition). Sebastopol, CA: Maker Media, Inc. • Karvinen, T., Karvinen, K., & Valtokari, V. (2014). *Make: Sensors: A Hands-On Primer for Monitoring the Real World with Arduino and Raspberry Pi* (1 edition). Sebastopol, CA: Maker Media, Inc. • Nova, N., & Bolli, L. (2014). *Joypads!: The design of game controllers* (1 edition). CreateSpace Independent Publishing Platform. • Trevennor, A. (2012). *Practical AVR Microcontrollers: Games, Gadgets, and Home Automation with the Microcontroller Used in the Arduino* (1st ed. edition). Berkeley, CA : New York: Apress.
Other Learning Resources	**University Virtual Learning Environment** PowerPoint slide presentations, teaching notes and other relevant materials will be available through Moodle, a web-based integrated teaching and learning environment, which is part of the University's Virtual Learning Environment (VLE). **Lynda.com** Online, specialised video tutorials taught by industry experts are used by staff to support module content, and available to students who wish to revisit the subject in their own time and further their understanding beyond the scope of the module. **GDC Vault** Students have ongoing access to the GDC Vault, the definitive online repository of games industry lectures filmed at the network of Game Developers Conferences, where invited speakers define and shape the direction of the videogame industry.