

Physical Computing

Introduction to electronics and physical computing: playful learning and application of basic physical computing techniques.

Angebot für

Bisheriges Studienmodell > Design > Bachelor Design > Interaction Design > 3. Semester

Nummer und Typ	BDE-VIAD-V-3020.02.18H.001 / Moduldurchführung
Modul	Physical Computing
Veranstalter	Departement Design
Leitung	Joël Gähwiler Luke Franzke
Zeit	Di 9. Oktober 2018 bis Fr 2. November 2018 / 8:30 - 17 Uhr 14 Tage
ECTS	4 Credits
Voraussetzungen	Basic programming skills. Interest in an intellectual as well as technical examination of physically real material and electronics. Patience with the matter and yourself.
Lehrform	Seminar with lecture, topic-specific exercises and self-study.
Zielgruppen	Pflichtmodul für Interaction Design, 3. Semester
Lernziele / Kompetenzen	Understanding the characteristics of interaction with digital physical objects and the technologies behind them. Conception, planning and implementation of case-specific solutions to interaction design problems. Knowledge in electronics, microcontroller programming, sensors and actuators.
Inhalte	In our living world we are increasingly surrounded by electrified objects, which often harbor logic. From the coffee machine, over the light switch to the smartphone, in countless situations we interact with objects and their inscribed behaviors. As interaction designers, we are therefore confronted with the question of how we can influence these behaviors creatively and logically for the user. In this course we will acquire basic knowledge of electronics, programming and the design of interactive objects. On the other hand, there is the intellectual and practical examination of the possibilities for interaction with the real environment.
Bibliographie / Literatur	Arduino Cookbook, Michael Margolis, O'Reilly Media, ISBN-13: 978-0596802479 Getting Started in Electronics, Forrest M. Mims III, Master Publishing, Inc., ISBN-13: 978-0945053286 MAKE: Electronics: Learning Through Discovery, Charles Platt, Make, ISBN-13: 978-0596153748 Getting Started with Arduino, Massimo Banzi, Make, ISBN-13: 978-0596155513 Physical Computing: Sensing and Controlling the Physical World with Computers Dan O'Sullivan und Tom Igoe, Course Technology PTR, ISBN-13: 978-1592003464 Wiki: http://wiki.iad.zhdk.ch/EE Arduino: www.arduino.cc Processing: www.processing.org
Leistungsnachweis / Testatanforderung	min. 80% attendance and min 80% submitted exercises

Termine	09.10.2018 - 02.11.2018
Dauer	14 Tage
Bewertungsform	Noten von A - F