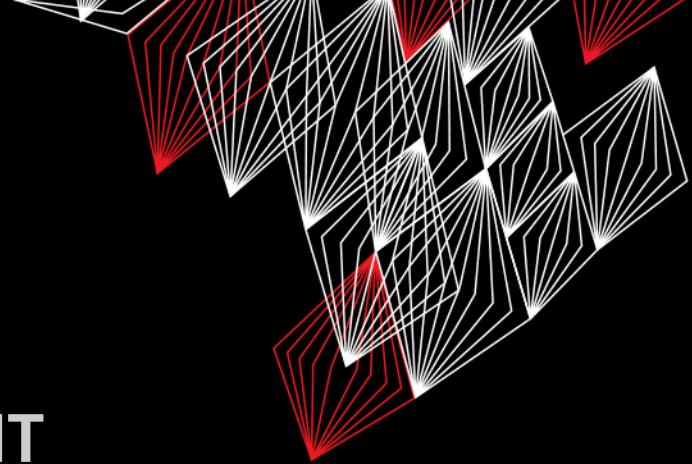


UNIVERSITY OF TWENTE.

APPLICATION DEVELOPMENT

LECTURE 1: INTRODUCTION



```
class AppDev {
```



```
}
```



Part of **SmartProducts**



INTRODUCTION

APPLICATION DEVELOPMENT



- Intro to course
- Assignments

slides & clips @ vanslooten.com/appdev



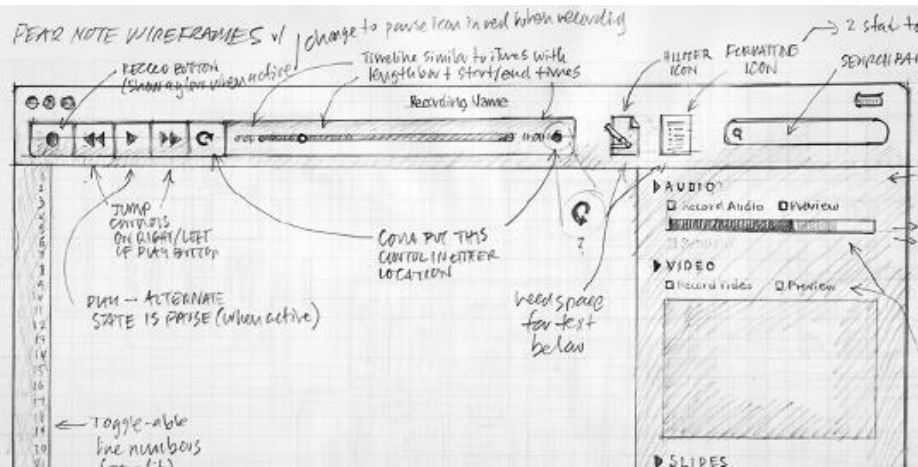
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Assistants:

Thimo Willems
Lauren Schreurs
Joëlle de Looff
Sjoerd de Jonge
Mariya Popnikolova
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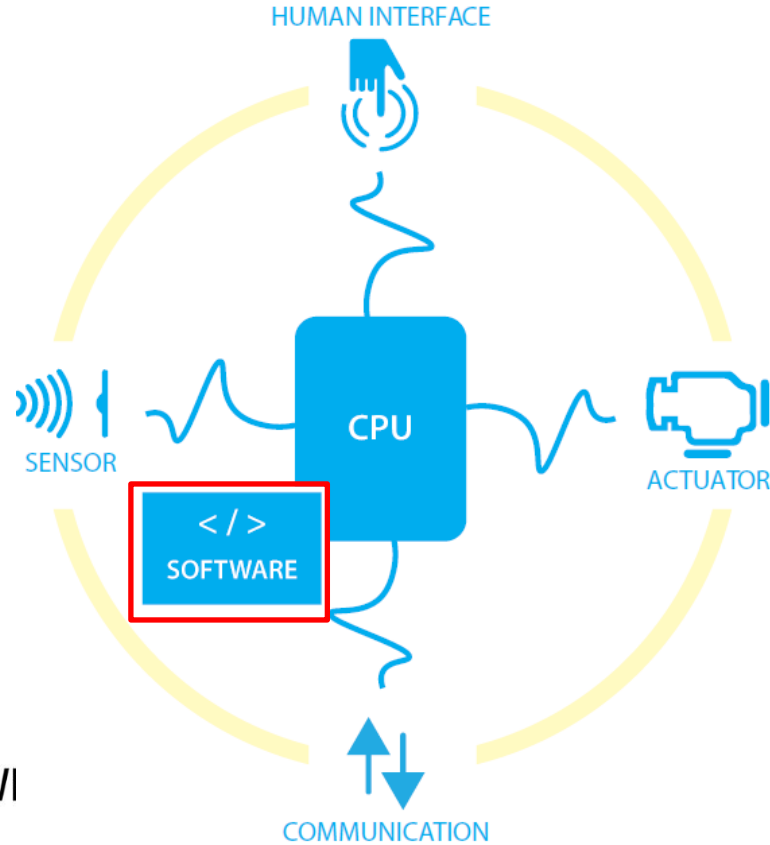
WHAT DOES APPLICATION DEVELOPMENT OFFER?

- Understand how computers & apps work
- Create electronics powered by Arduino
- Design & develop applications (software)
 - Apply design & specification methods



SOFTWARE: 'BRAIN' OF A SMART PRODUCT

- Integrates, connects
- Makes smart
- Applied? Embedded in (small) devices, online, widgets, userinterfaces
- Design, develop, test





STRUCTURE OF THIS COURSE

Check full schedule
@ vanslooten.com/appdev



Morning:
Presentation +
tutorial session

Afternoon:
Work on project

Focus: **learn**;
Work on
assignment

Focus: **apply**, programming
& interaction for project
assignment

- Mostly on Fridays, with few exceptions (see schedule)
- Assessment: assignments
- Time needed per week: 4 hours *learn*, 4 hours *project*, 2 hours *self-study*

STUDY MATERIALS

- Site: vanslooten.com/appdev
- Study-topics in schedule
- Assignments as tutorial-sessions
- Hand-in assignments [on Canvas](#)
- Software: Eclipse, Arduino:
- [Installation instructions](#)

Application Development

Information about the course Application Development can be found here. This course is part of **module 4, "Smart Products"**. **The next edition of this course starts Friday April 24th, 2020.** Materials of the previous edition are available via the links below in the main folders.



Start taking this course

Ready? Participate & do assignments here

More information:

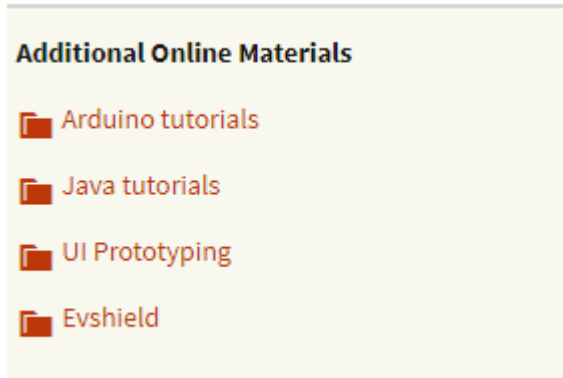
- [Schedule 2020](#)
- [Checklist electronics kit](#)
- [Register your address to send the electronics kit to](#)
- [Frequently Asked Questions \(FAQ\)](#)
- [Java Cheat Sheet](#)
- [Instructions on submitting files](#)

ONLINE TUTORIALS

ADDITIONAL SELF-STUDY



- @site: additional lesson materials & online tutorials
- Recommended: [Tutsplus](#), [Codecademy](#), [JavaTpoint](#)



PRACTICE

- Assignments prepare you for project!
- Advice: working together allowed, **copying** each others work is **not** allowed
- Assistants & teacher available for help
- *Read!* Before you start programming

- Afternoon: project work, teacher available for help



Morning:
**Presentation +
Learn**

Afternoon:
Apply



ASSESSMENT

There will be no exam/test,
only assignments

- Grade calculation:
 $\text{number-of-passed-assignments}/9*10$
- Assignments are sufficient if:
 - Handed in before deadline (next lecture)
 - Assessed as sufficient by review
 - 9 assignments count towards the grade
- Grade counts towards Module-grade (details in project-manual)
- Practical sessions (first 2 afternoons) are treated as assignments too

ONLINE SUPPORT

Chat service on most pages on website

to use, please login to the site, so we can see who you are




- No 'physical' lectures... how do you get help?
- **Teacher + 6 assistants** are available for **help on lecture days**
- How?
 - Online chat service on website with breakout to for instance Skype or Hangouts
 - Private support forum to [ask questions on Stackoverflow](#)
 - If needed, central Q&A sessions

Ask question in Stackoverflow forum

The screenshot shows the Stack Overflow interface for the 'App Dev team Questions' section. The top navigation bar includes the Stack Overflow logo, 'Products', 'App Dev team', and a search bar. The main content area features a header for 'App Dev team Questions' with a profile picture and a blue 'Ask Private Question' button. Below the header, there are 12 questions listed, with filters for 'Newest', 'Active', 'Bountied', 'Unanswered', and 'More'. The first question is titled 'Trouble with MPU6050_DMP6 example' and has 0 votes. The question text reads: 'I tried to test the MPU6050 example on https://maker.pro/arduino/tutorial/how-to-interface-arduino-and-the-mpu-6050-sensor, but run into a number of compiler errors like these: In file included from ...'

WHAT TO DO NEXT?

Deadline of each assignment is the next lecture: so you can get help on this assignment this and the next lecture

- Watch Java introduction
- Install Eclipse (see [installation instructions](#))
- Do assignment 1
 - Read carefully before you start
 - You may work together or help each other, but code should be your own!
-  **Hand-in on Canvas** before the deadline
- Try examples/self-study/extra tutorial (explained in appendix of assignment 1)

