SM 14/15 – T1
Introduction

LCC, MIERSI

Miguel Tavares Coimbra

U.PORTO

How can I create a multimedia system?

Objectives

- Understand current technology
  - We will discuss one type of technology per lecture (9 in total)
- Express ideas clearly and convincingly
  - Written format
  - Video format
  - Prototype format

Which technologies will we discuss?

There are more… Go study them yourself!

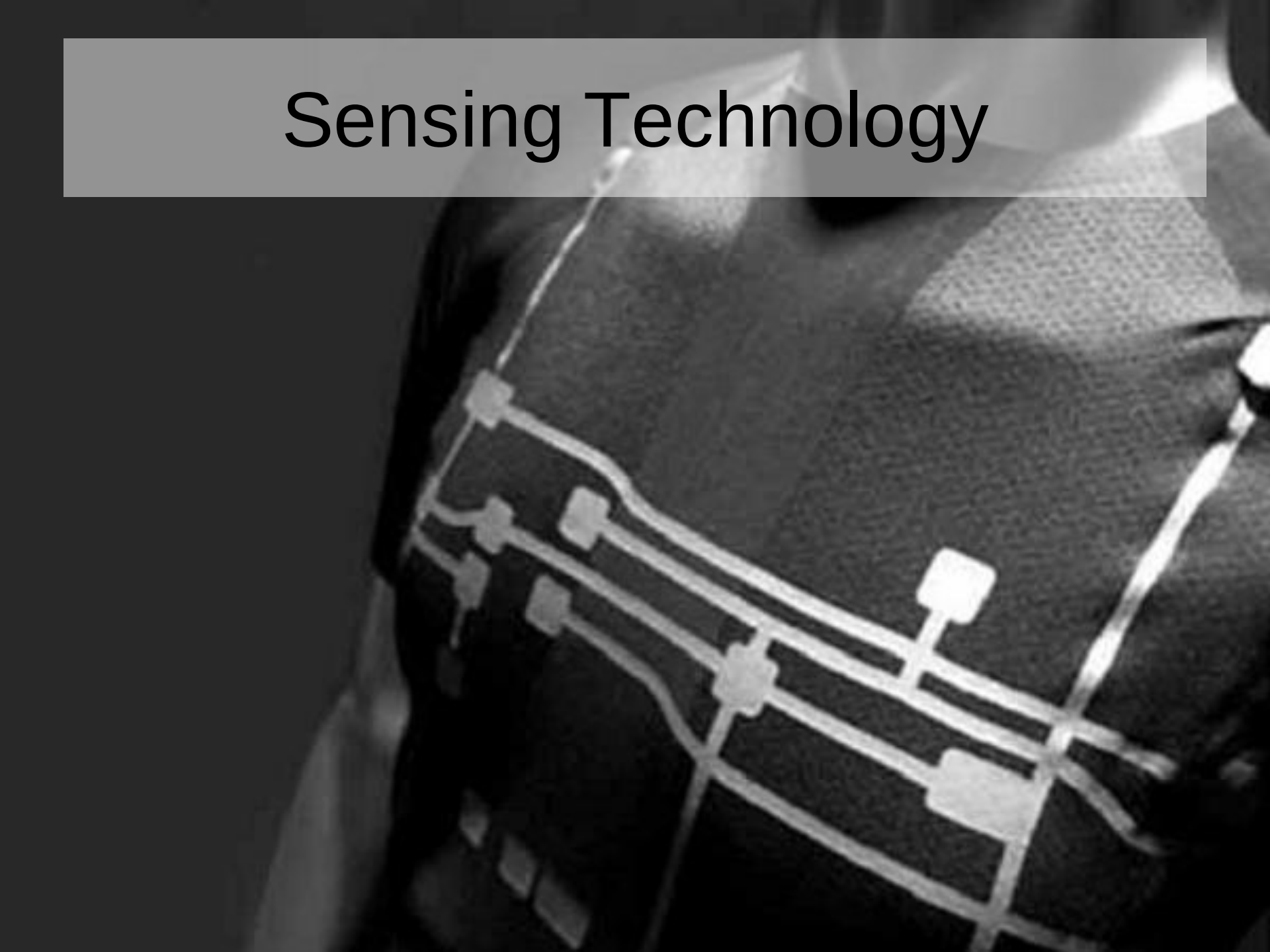
Videogame Design

Designing Interactive Systems

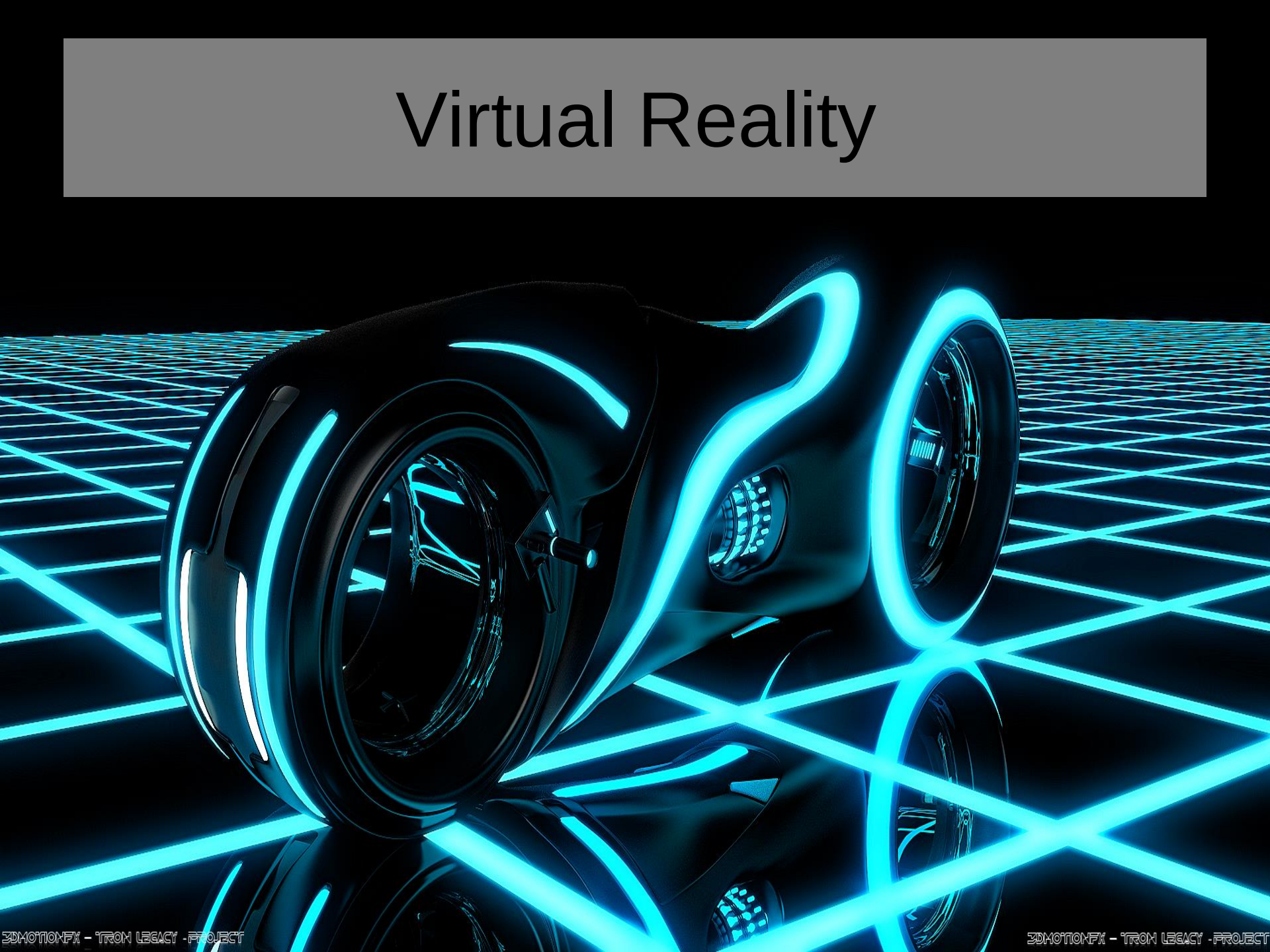
Special Effects

Motion Capture

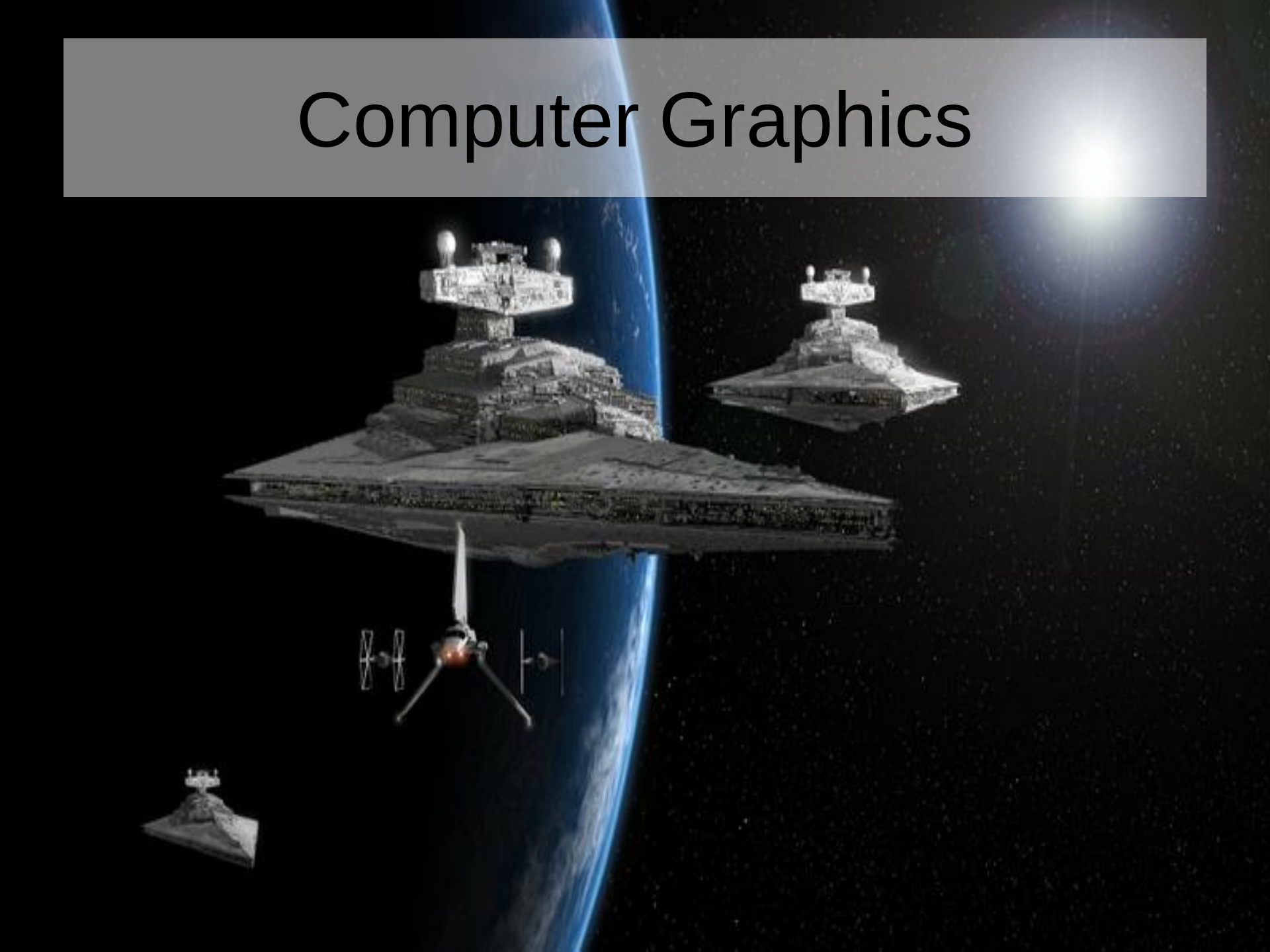
Sensing Technology



Virtual Reality



Computer Graphics



Sound and Music

Advanced Interactive Technology

Evaluation

Evaluation components

- Two components
  - Course project (50%)
    - Groups of two students
    - 3 types of project modalities: paper, video, technology
    - Deliverable and Presentation
  - Exam (50%)
    - Individual
    - 2 questions per selected 3 out of 9 technologies

Types of course projects

- Paper
  - Review of the state-of-the-art in a specific topic validated by the lecturer
  - Delivered in IEEE 4 page paper format
  - Focus: Ability to understand state-of-the-art and summarize it in a paper format
    - Example: *Controlling a video-game using facial expressions*
    - Example: *Particle engines for computer graphics influenced by a user's heartbeat*
- Video
- Technology

Types of course projects

- Paper
- Video
  - Choose 3 out of 9 MS technologies
  - Design a MS that includes these technologies for a target application
  - Create a 3 minute video that explains the designed MS.
  - Focus: Ability to express novel technology-focused ideas using video
    - Example: *Particle engines for virtual reality systems influenced by a user's heartbeat – Computer graphics, virtual reality, sensors*
- Technology

Types of course projects

- Paper
- Video
- Technology
  - Choose at least one MS technology
  - Implement a MS that uses these technologies
  - Show the proof-of-concept technology in a public presentation
  - Focus: Ability to implement and present state-of-the-art technology
    - Example: *Particle engines that react to sound captured by a microphone – Computer graphics, Sound*

How do I develop my course project?

- Theoretical lectures and support materials explain the various technologies
- Tutorial classes are fundamental for guided progress:
  - Pick a group in the first class
  - Pick an idea quickly and validate your choice with the lecturer
  - Participate in discussions in the theoretical lectures
  - Use the two hours of tutorials for lecturer support

Exam

- Total exam has 9 groups of 2 questions
- A student must choose and answer to 3 groups of questions
- Each group corresponds to one specific technology
- Study materials include two articles per group, out of which questions will be created

Final grade

- Each component is worth 50% of the grade (project, exam)
- No minimum grade per component
- Final minimum grade of 10 to pass

And now… for something completely different

(or just plain awesomeness…)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Have fun!

- Webpage:

  www.dcc.fc.up.pt/~mcoimbra/lectures.html
- Email:

  mcoimbra@fc.up.pt