Video Game Development with GameMaker I

Create your own video games! Students learn the concepts of game theory and software development practices to answer questions such as 'What is a video game?' and 'What makes a good game?' Students use this knowledge to design their own games and use GameMaker to bring their creations to life! Students will learn how to use sprites, objects, sounds, backgrounds, rooms and more to make multi-level maze video games. At the end of the session students can export their games and take home a copy on disc.

Week 1

- We discuss the question 'What is a video game?'
- Students are introduced to the GameMaker programming environment.
- Students learn how to load and edit sprites and create objects and rooms. They learn how to assign events and actions to an object.
- Students create a design document for a 'Clickball' game and start development.

Week 2

- Students continue the development of their 'Clickball' game.
- Students become familiar with a wider range of events and actions.
- Students learn how to add sounds, backgrounds and a 'Game Information' screen to finish their game.

Week 3

- We discuss 'What makes a good game?' and learn about game concepts such as goals, decisions, balance, symmetry, rewards, flow and immersion.
- Students learn how to create multiple rooms (levels) and how to make objects move between them.
- Students learn how to use keyboard input.
- Students create a design document for a 'Maze' game and start development.

Week 4

- Students continue the development of their 'Maze' game.
- Students learn how to incorporate scoring and rewards.

Week 5

- Students continue the development of their 'Maze' game.
- Students learn how to incorporate monsters and lives.

Week 6

- We discuss 'Why should we test games?' and learn about testing and feedback practices.
- We develop a list of strategies for testing and debugging our games.
- Students practice debugging several games.

Week 7

- We discuss/review 'What are the different genres of video games?'
- Students fine-tune their games before creating executable files.
- Students burn their games to a disc to take home.