



## ADVANCED MULTIMEDIA DEVELOPMENT (CIC2P13) Laboratory Six

Please follow the textbooks for the lab exercises:

**Macromedia Flash MX 2004 Game Programming – Graig S. Murray, Justin Everett-Church (2003)**

**Please use Flash MX 2004**

Please refer to the subject website for example files and resource files:

At the end of this lab session, students should be able to:

- Create a game "Critter Attack" (or Space Invader) with ActionScript programming

### **Exercise – Game: Critter Attack (Space Invader)**

(estimated time: 4 hours with lecturer's guidance, 3 hours self practice)

#### Major Tasks

1. Player controls the spaceship with arrow keys  
Subtasks
  - i. Setup alignment to upper-left corner & scaleMode of .swf file
  - ii. Initialize game
  - iii. Create scoreboard - **critter\_attack\_step1\_initGame\_score fla**
  - iv. Create ship - **critter\_attack\_step2\_initGame\_ship fla**
  - v. User keyboard control – left arrow, right arrow, spacebar -  
**critter\_attack\_step3\_ship\_control fla**  
**critter\_attack\_step4\_ship\_control fla**
2. Aliens move as large block back and forth  
Subtasks
  - i. Create aliens
  - ii. Put aliens on stage row and column - **critter\_attack\_step5\_Aliens fla**
  - iii. Aliens move from left to right, down, right to left ...
3. Each Time the aliens get to the edge, they move down - **critter\_attack\_step6\_Aliens\_Move fla**



4. Spaceship fire lasers using space bar  
Subtasks
  - i. Create player bullet
  - ii. Put player bullet at the ship location
  - iii. Player bullet travel up
  - iv. If player bullet go out of stage, it is taken out
  - v. If it hits an alien, go to step 6 - **critter\_attack\_step8\_Player\_Bullets fla**
5. Aliens can fire lasers back  
Subtasks
  - i. Create alien bullets randomly
  - ii. Put alien bullets at the chosen alien location
  - iii. Alien bullets travel down
  - iv. If an alien bullet go out of stage, it is taken out
  - v. If it hits player, go to step 7 - **critter\_attack\_step7\_Aliens\_Bullets fla**
6. When player shoots an alien, it dies and disappears
7. When the aliens shoot the player, ship becomes redder-**critter\_attack\_step9\_Levelup\_HitShip fla**
8. If player dies, game ends
9. If player kills all the aliens, more faster aliens  
Subtasks
  - i. Create next level
  - ii. Reset all variables, re-initialize game
10. Create the stars as background
11. Implement sound for different incidences - **critter\_attack\_step10\_Stars\_Sound fla**

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Download the file critter\_attack\_step0 fla from the subject website. Rename it to critter\_attack\_step1 fla.  
(You have some movie symbols created for you.)

Refer to textbook **Pg333 to 367**, and follow the tasks breakdown above.  
Follow the example files from the subject website, build the game step by step.