ITCS 4236/5236 Artificial Intelligence for Games  
Homework #1

**Instructions**Using Unity, implement the Kinematic Arrive algorithm. The program should have a character and plane on which the character can move. The program should also allow the user to left-click anywhere on the plane causing the character to perform the Kinematic Arrive algorithm to move toward that spot. Once the character has successfully arrived and stopped at the destination, the user should be able to click again to perform another move.

Built-in graphics and game objects will suffice (although you must be able to tell the orientation of the character). Programs not done in Unity will not be graded.

Check the rubric below for specific grading points

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| Program is well commented | 10 |
| Program builds and runs without errors | 10 |
| Program contains one character and a plane | 10 |
| Character movement is initiated from a mouse click on the plane | 10 |
| Character successfully moves and stops at the destination without wiggling | 20 |
| Character’s orientation is smoothed over several frames (not automatically set to face the destination) | 20 |
| Program uses the Kinematic Arrive algorithm as described in the book/class (and below) including using a radius of satisfaction and range of speed. | 20 |
| Total | 100 |

