Introduction to Game Mode
• In this tutorial you will learn:
  – How to use the Game Mode to start writing programs for this year’s Middle School Game!
  – How to compete against a standard player
Welcome to Game Mode

- So far, to complete tutorials, you have been writing your programs in “Free Mode”

- Now that you are ready to start writing programs for the Middle School Summer Program Game you will switch to the appropriate Game Mode

- All code for the game must be written in the appropriate Game Mode

Let’s get started...!!
Creating a Project in Game Mode

- Select the IDE drop down menu on top ribbon
- Select “New Project”:
- In the popup window enter:
  - Project Name
    - Enter an name. Example: Team ABC1
  - Select “Graphical Editor”
  - Game
    - Select the name of this year’s game (ask your teacher!)
- Click “Create Project”
Introduction to Game Mode

- The Graphical Editor environment for the selected “Game Mode” will look similar to what you have seen in “Free Mode”
- There will be extra accordions on the screen with commands specific to the game
- The simulation, however, will look different!
- Want to take a peak?
  - You don’t need to create any code
- Click “Simulate” from the menu on the top ribbon
- On the Simulation Settings Window:
  - Leave everything else “as-is”
  - Click “Simulate”
- Select “View Results”
• When you click the arrow to start the simulation you will see the initial positions for the two satellites.

• Nothing else will happen because you have not written any code yet.

• Take a look at the scoring boxes.
  – Some extra, game-specific information is included
  • Based on your understanding of the game, can you guess why the information is there?

• Close the simulation window

Note: These images are game specific and will vary from year to year.
Playing a Standard Player

- Another feature of “Game Mode” is that you sometimes have the option to test your code against “Standard Players”
- Even though you don’t have any code to test yet, you can try it right now
- From the Graphical Editor select “Simulate” from the top ribbon menu
  - Leave everything else “as-is” except opponent
  - Click “Select Opponent”
    - In the project window look for a shared project labeled “Standard Player” for your game
    - Click the check box
    - Click on Select
Playing a Standard Player, continued

- The name of the opponent will appear on the Simulation settings window
- Simulate and View Results!
You will see:
- The “Opponent” move through the game course
- Various elements of the game will appear
- Your SPHERE will remain stationary since you have not created any code

Check the scoring boxes at the end of the match to see how well the "Opponent" scored

Note: This image is game specific and will vary from year to year

<table>
<thead>
<tr>
<th>HS ZR 2D Demo Player #6</th>
<th>Elapsed Time: 174.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>X: -0.03  Y: -0.80  Z: 0.00</td>
<td></td>
</tr>
<tr>
<td>Vx: -0.000 Vy: 0.007 Vz: -0.000</td>
<td></td>
</tr>
<tr>
<td>Nx: 0.63  Ny: 0.77  Nz: -0.00</td>
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</tr>
<tr>
<td>oωx: 0.45  oωy: -0.52  oωz: -0.34</td>
<td></td>
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<tr>
<td>Fuel Remaining: 6%</td>
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</tr>
<tr>
<td>Charge: 0</td>
<td></td>
</tr>
<tr>
<td>Item 0: 1  Item 1: 1  Item 2: 0</td>
<td></td>
</tr>
<tr>
<td>Phase: 3  TFin: 138  Score: 5</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>HS ZR 2D Demo Player #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>X: 0.26  Y: -0.67  Z: 0.00</td>
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<tr>
<td>Vx: 0.006 Vy: -0.018 Vz: 0.000</td>
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<tr>
<td>Nx: -1.00 Ny: 0.07 Nz: 0.01</td>
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<tr>
<td>oωx: 0.38  oωy: -1.07  oωz: 11.49</td>
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<tr>
<td>Fuel Remaining: 32%</td>
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<tr>
<td>Charge: 1</td>
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<tr>
<td>Item 0: 1  Item 1: 0  Item 2: 0</td>
</tr>
<tr>
<td>Phase: 3  TFin: 172  Score: 7</td>
</tr>
</tbody>
</table>

Blue sphere: 5  vs  Red Sphere: 7
Review

• Congratulations!
  – You have learned how to select the appropriate “Game Mode” to create a project for your game
  – You have learned how to test your code against a “Standard Player”

• Now it is time to get started! Have fun writing code!