ZERO ROBOTICS

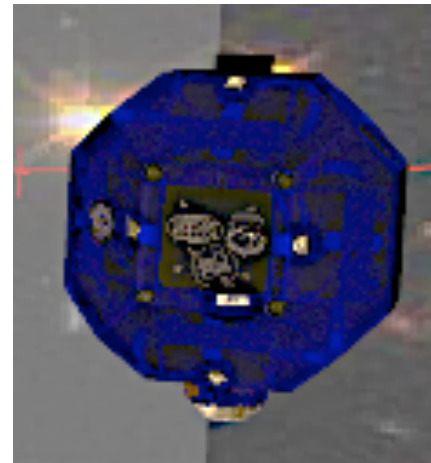## ISS PROGRAMING CHALLENGE

Introduction to Game Mode

- In this tutorial you will learn:
  - How to use game mode to start writing programs for this year's high school game
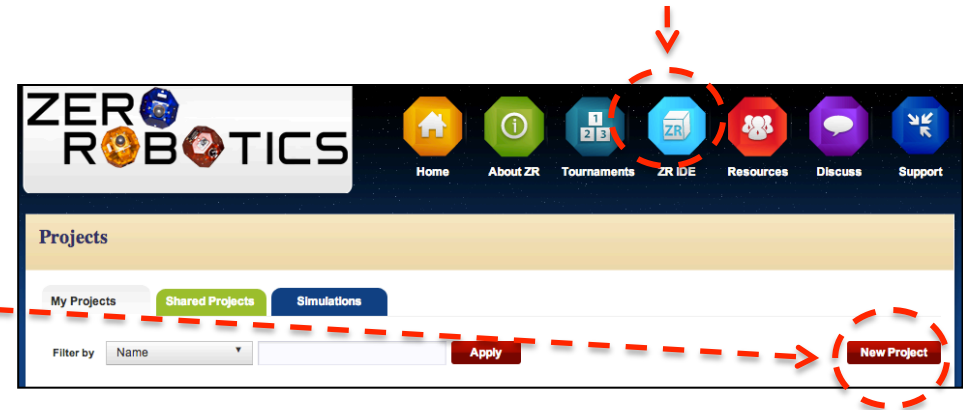 - How to compete against a standard player

Welcome to Game Mode

- So far in these tutorials, you have been writing your programs in Free Mode"

- Now that you are ready to start writing programs for a competition, 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!

- Select light blue "ZR IDE" SPHERES icon on top ribbon

- Select "New Project"

- In the popup window enter:
  – Project Name
    - Enter an name. Example: TeamABC1
  – Game
    - **Select the name of this year's game (ask your teacher!)**
  – Initial Editor
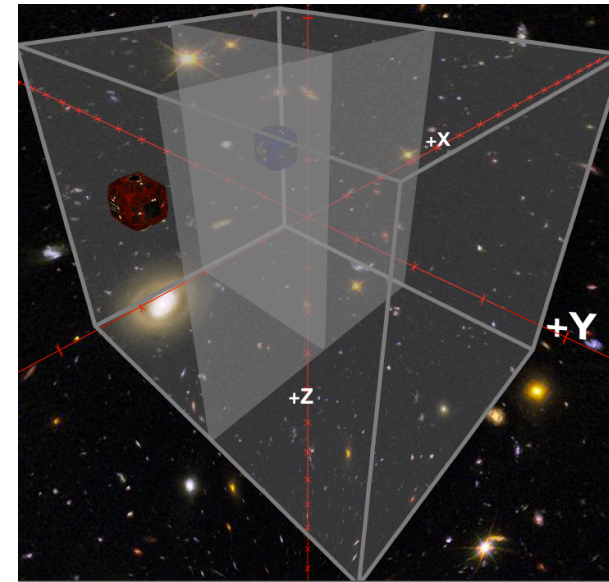   - Select "Text Editor"

- Click "Submit"

- The text editor environment for the selected game mode will look similar to what you have seen in Free Mode

- In game mode you will be able to use commands specific to the game

- The simulation will also look different!

- Want to take a peek?
  - You don't need to create any code

- Click on Simulate

- On the Simulation Settings Window:
  - Load Settings:
    - Select "Create new"
    - Enter a name for the settings
  - Leave everything else as is
  - Click "Run"
  - Select "View Simulation"
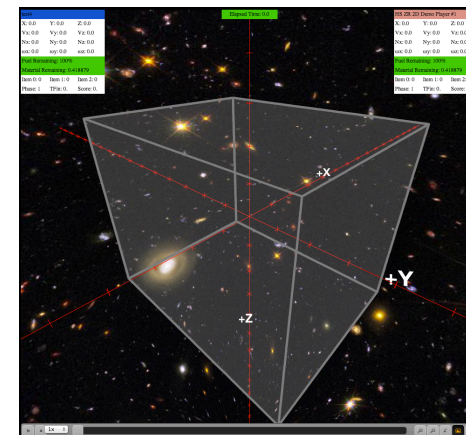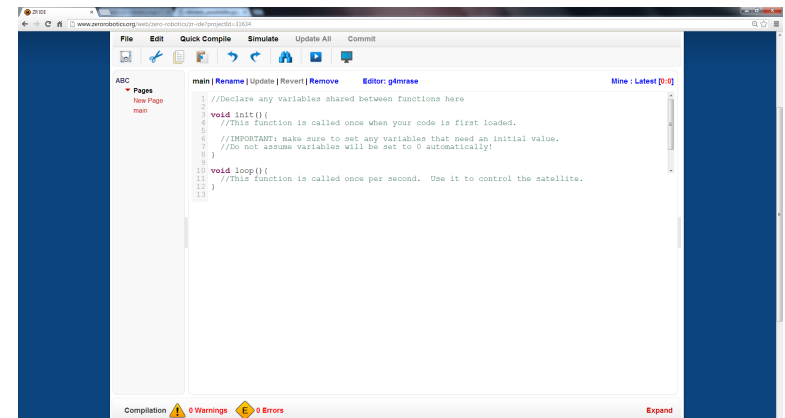
- When you click the arrow to start the simulation you will see the initial positions for the two satellites.

- 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 knowledge of the game, can you see why the information is there?

- Close the simulation window

Note: These images are game specific and will vary from year to year

- Another feature of game mode is that you can test your code against "standard players" (preprogrammed opponents)
- Even though you don't have any code to test yet, you can try it right now
- From the Text Editor window click on "Simulate"
  - Load Settings:
    - Select the setting you just created
  - Leave everything else as is except opponent
  - Click "Select Opponent"
    - In the pop-up window under OPPONENT CATEGORY click on "Standard Players"
    - Click on one of the players that show up under PROJECT NAME
    - Click Select

- Run and View Simulation!

- You will see:
  - The opponent moves though the game course
  - Elements of the game appear
  - Your SPHERE remains 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: Image below is game specific and will vary from year to year

Blue sphere: 5   vs   Red Sphere: 7

- 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!