

ZERO ROBOTICS

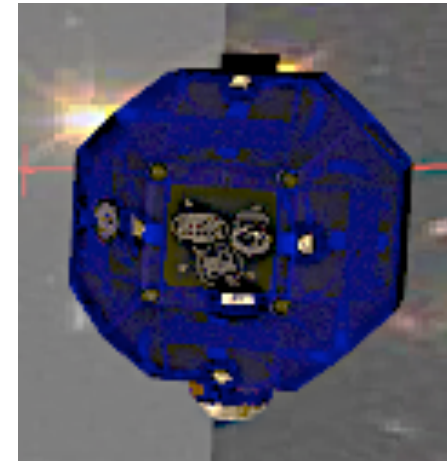
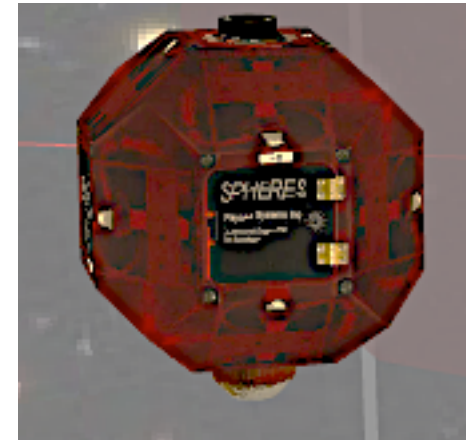
ISS PROGRAMING CHALLENGE

Intramural Game Mode Tutorial





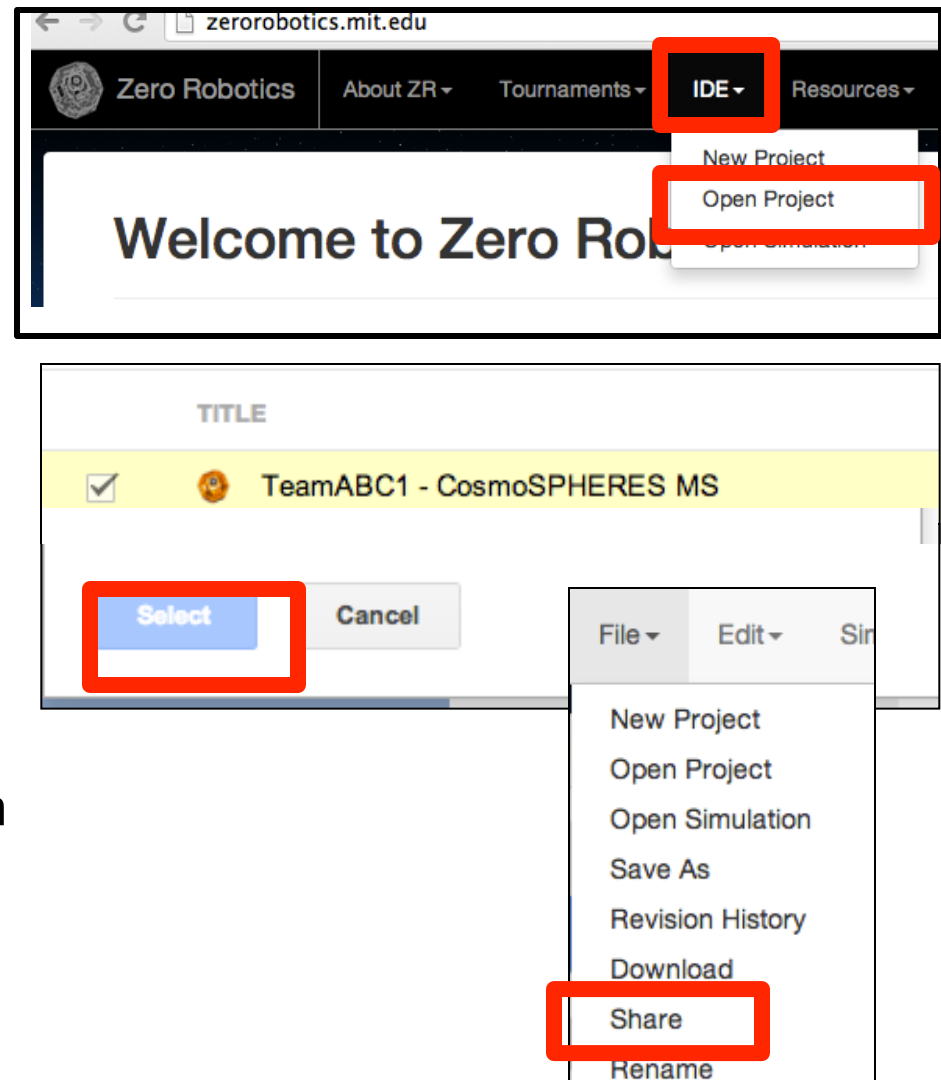
- In this tutorial you will learn:
 - How to share your program on the Zero Robotics website with your team
 - You need to complete this step before you can compete against a teammate
 - How to compete against a teammate



Sharing projects



- Sharing projects with your team allows:
 - Teammates to view and edit your projects
 - Teammates to save your project with a new name and develop it further
 - Teams to hold Intramural Competitions
- Click on the IDE menu on the top ribbon and Select “Open Project”
- Find the project you would like to share click the check box and then click “Select”
- Go to the File menu on the top ribbon and select “Share”



Sharing projects, continued



- Share by entering name or email address in the “Invite people” field
- Make sure that the sharing option is toggled to “Can edit”
- If desired click “Add message” link to add a message and then Select “Send”
- The “Invited people” will be added to the “Who has access” list in this window and will receive an email message with a link to the project

Invite people:

Enter names or email addresses...

Can edit ▼

- ✓ Can edit
- Can comment
- Can view

☒ Notify people via email - [Add message](#)

☐ Send a copy to myself

Sharing settings

Link to share (only accessible by collaborators)

<https://drive.google.com/file/d/0B38IGau1pqgFa05WcXoza2lKYjQ/edit?usp=sharing>

Share link via:



Who has access



Private - Only you can access

[Change...](#)



Is owner

Invite people:

Enter names or email addresses...

Can edit ▼

☒ Notify people via email - [Add message](#)

☐ Send a copy to myself

Editors will be allowed to add people and change the permissions. [\[Change\]](#)

Sharing projects, continued



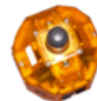
- The Invited people should:
 - Check their email
 - Click on the link in their email
- This will open the ZR IDE
- Click on “Open with app” when prompted
- The shared project will open in the IDE and will be added to their list of projects

Subject: TeamABC1 - CosmoSPHERES MS

Date:

I've shared an item with you.

 **TeamABC1 - CosmoSPHERES MS**



You have Zero Robotics IDE installed

This item was created with Zero Robotics IDE, a Google Drive app.

Open with app

Sharing projects, continued



- Have each person competing in the intramural competition share their project with the group or their teacher.
- Create a plan for the order for the competition
 - Each team should play each other team at least once.
 - See example (shown) for a competition between 3 teams

Round 1	
A	2 team 2
	3 team 3
Round 2	
B	3 team 3
	1 team 1
Round 3	
C	1 team 1
	2 team 2

Competing against a team member



- Open a project in the IDE
- Select Simulate
- 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 the shared project that you would like to compete against
 - Click the check box
 - Click on Select
- The Opponents name will appear on the Simulate settings window
 - Your code defaults to Blue satellite
 - Opponents code defaults to Red satellite
- Simulate and View Results

Initial Position		X	Y	Z
Satellite 1		0	-0.65	0.2
Satellite 2		0	-0.65	-0.2

Competing against a team member, continued



- Check the statistics in the scoring box for each SPHERES
 - The name of each team will show up at the top of their own scoring box
 - Review the game manual for scoring details
 - Record Score
- Run additional competitions to determine the winner!

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

HS ZR 2D Demo Player #6		
X: -0.03	Y: -0.80	Z: 0.00
Vx: -0.000	Vy: 0.007	Vz: -0.000
Nx: 0.63	Ny: 0.77	Nz: -0.00
ωx : 0.45	ωy : -0.52	ωz : -0.34
Fuel Remaining: 6%		
Charge: 0		
Item 0: 1	Item 1: 1	Item 2: 0
Phase: 3	TFin: 138	Score: 5

Elapsed Time: 174.0

HS ZR 2D Demo Player #2		
X: 0.26	Y: -0.67	Z: 0.00
Vx: 0.006	Vy: -0.018	Vz: 0.000
Nx: -1.00	Ny: 0.07	Nz: 0.01
ωx : 0.38	ωy : -1.07	ωz : 11.49
Fuel Remaining: 32%		
Charge: 1		
Item 0: 1	Item 1: 0	Item 2: 0
Phase: 3	TFin: 172	Score: 7

Blue sphere: 5 vs Red Sphere: 7



- Congratulations!
 - You have learned how to:
 - Share your programs with your team
 - Compete your code against a other teammates code
- Have fun in the Intramural Competition!

