

# RePLAY GETTING STARTED: Innovation Project

## Tips for hosting a Virtual Team Meeting:

- There are many tools such as Zoom and Google Hangouts. Some older teams also use Slack or Discord.
- Make sure your students learn how to logon and how to share their screen
- A webcam may help them feel more connected to the team
- Headphones for each student will help them reduce external noise
- Be sure to go through online safety tips for kids
- Using Google Drive or similar to keep all your team's materials together will be helpful.



Evaluate the challenge using the released videos, text and images

### Theme Analysis

Look at the three teaser videos  
Read all the text with them  
What do you think the topic is this year?

### **Teaser 1:**

[https://youtu.be/2llxVVR7\\_No](https://youtu.be/2llxVVR7_No)

### **Teaser 2:**

<https://youtu.be/3MmcU6a2zAo>

### **Teaser 3:**

<https://youtu.be/Azlg4bWumxI>

### Websites

What websites or online resources can you find related to the theme?

Refer to the Innovation Project Lessons here:

<http://flltutorials.com/Project.html>

Worksheets:

<http://flltutorials.com/Worksheets.html>

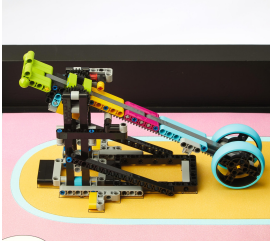
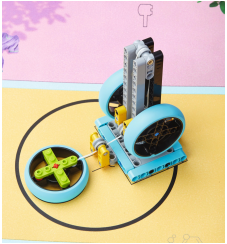
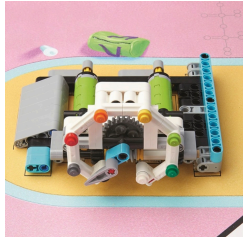
### Virtual Fieldtrip and Expert Interview

Where can you visit?  
Are there experts you can reach out to who may have time right now?

### Design a Survey

If applicable, design a survey to gather information

# RePLAY GETTING STARTED: Robot Game



## **Robot Prototyping**

What design of robot would be useful? Wide or narrow?

What sensors would help with navigation? Where should the sensors go?

Look at the mat and mission models. Guess what you might need to do with them. Can you design some mechanisms to Push? Pull? Lift? Deliver a hoop?

Evaluate the challenge using the released videos/images

## **Programming Skills (EV3 or SPIKE Prime)**

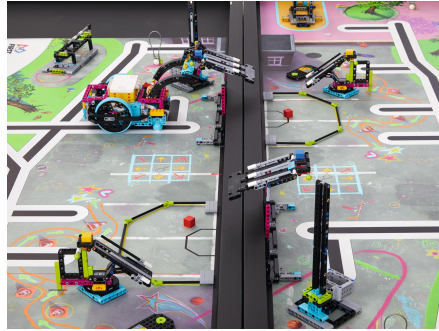
Which sensors should you learn to use?

What techniques/algorithms do you want learn? Line following? Aligning? Gyro move straight? Proportional control?

- If you don't have access to your robot, design one using Studio. You can construct both EV3 and SPIKE Prime robots with this tool.  
(<https://www.bricklink.com/v3/studio/download.page>)
- Send home a sanitized set of LEGO brick with each team member Build some of the FLLMiniBuilds (<http://flltutorials.com/RobotGame.html>) or look up books by Yoshihito Isogawa
- Build just the mechanisms with the LEGO.

- If you don't have access to your robot, you can still download the software and learn to program
- If one team member/coach has a robot, email them your code files to test and watch them run the robot.
- You can also collaborate to code. For example, you can all be on a Zoom call together and give instructions to the one person with the robot
- EV3: EV3Lessons.com
- SPIKE Prime: PrimeLessons.org

# RePLAY GETTING STARTED: Core Values



Learn to work as a team

## Guess the Missions

Use the images to guess the missions for this year.

## Develop a Team Identity

Pick a team name  
Design a team logo  
Design a team shirt  
Make a tram introduction video

## Learn the Core Values

What are the Core Values?  
How can we use them?

## Learn to Work Together

Make sure everyone has the same set of LEGO/materials.  
Have one team member build something and give instructions while the others follow.

All of these can be done virtually

Core Values lessons and activities are available:

<http://flltutorials.com/CoreValues.html>

Core Values Worksheet:

<http://flltutorials.com/translations/en-us/Worksheets/LearnCoreValuesWorksheet.pdf>

Tips for being a team virtually:

- Spend time on get-to-know-you activities (ask every student to share their likes/dislikes/favorite activities. Help them see what they have in common.
- Make meetings fun. Have them come to virtual meetings dressed up (choose a theme, funny hat day, etc.)
- Give the team time to relax. Save meeting time for fun and socialization – to chat about school, to share a favorite song, etc.
- Set up game/movie night – students might enjoy watching a movie together or playing Minecraft together.

We express the *FIRST* philosophies of *Gracious Professionalism* and *Coopertition* through our Core Values:  
**Discovery:** We explore new skills and ideas.  
**Innovation:** We use creativity and persistence to solve problems.  
**Impact:** We apply what we learn to improve our world.  
**Inclusion:** We respect each other and embrace our differences.  
**Teamwork:** We are stronger when we work together.  
**Fun:** We enjoy and celebrate what we do!



# RePLAY GETTING STARTED: Guess the Missions

Work together as a team to guess what all the missions may be. Images are available on the Teaser video (<https://youtu.be/AzIq4bWumxI>), LEGO Education Facebook (@LEGOeducationofficial) and Instagram (@LEGOeducation). These are just a few examples of what was shared.

