



## Your Challenge

To design a pair of intergalactic shoes which can be worn while you spend summer vacation on a newly discovered planet.

## Storyline

The year is 2055 and you are going to visit your cousin for summer vacation on the first colony on *PLANET EDP*! While there, you will explore the forests and deserts, play sports, and attend a special dinner with the president of the colony. There is limited space on the space shuttle. Each passenger can only take one small suitcase, which can fit just one pair of shoes. Your team will design a pair of shoes that allows you to have fun and participate in all the activities in the colony. The pair of shoes your team designs must meet the design requirements, look good, and fit into your suitcase!

## Requirements to include in your design

### Mobility

- Consider ideas that will let you both explore the planet and play sports!

### Wearable Electronics

- Consider how to use LED lights to add visibility to your shoes when you are exploring the planet.

### Insulation

- Design using fabrics and material features that will keep your feet warm, but also let sweat escape.

### Impact Protection

- Design the shoes to protect your feet from the rough rocks.

### Be Creative and Make it Look Good!

- Remember you have a nice dinner to go to with the president of the new colony. How can you make your shoes look nice and match your dress?

### What is the Environment and Atmosphere Like on the Planet?

- Temperature: 32°F (0°C) – Think of a cold evening football game
- Terrain: Rough, rocky, hilly, and covered with unfamiliar plants
- Gravity: The same as earth
- Visibility: It is dusty, cloudy, and dark there – so visibility is important