

# Cool Racing Car

**Applicable Age Group** 4-5 year-old toddlers

- Activity Objectives**
- ☑ Explore the friction force of surfaces with different roughness.
  - ☑ Understand the impact of friction on the movement of objects.

**Activity Description** During races, racing cars often need to run on off-road tracks, which include both smooth roads and rough roads. In this activity, by comparing two surfaces with different roughness, children will observe that the racing car moves at different speeds on them, thereby exploring the impact of different friction forces on the racing car.

## STEAM Literacy Development Indicators

Method Indicator	Game-based introduction: Observe phenomena	Design the structure of a vehicle for the experiment	Test the influence of different surfaces on the vehicle	Knowledge expansion: Further explore friction
Curiosity and Imagination	●			
Flexibility and Adaptability		●		
Verbal and Written Communication Skills				
Cross-boundary Cooperation and Exemplary Leadership				
Critical Thinking and Problem-solving Skills				●
Proactive and Pioneering Spirit				
Ability to Evaluate and Analyze Information			●	



### Interactive Tips

- A racing car is designed because when it slides down from the top of a slope, the experiment and recording will be more accurate. After completing the experiment, you can analyze the differences between a small ball and the car with the children.
- The main requirement for the car body structure of the racing car is symmetry, which ensures its balance.
- The installation of wheels is both a key point and a difficult point. After installation, check the smoothness of the wheels' rotation.

