

# Scarecrow

**Applicable Age Group** 5-6 year-old toddlers

**Activity Objectives**

- ☑ Explore and understand the vertical transmission of bevel gears.
- ☑ Propose solutions to help the scarecrow cover a larger area through discussion and research.

**Activity Description** Learn with children that scarecrows help farmers drive away birds and insects that damage crops. Guide them to design a rotating scarecrow model, which uses the vertical transmission of bevel gears. During this process, observe the change in transmission direction. Finally, discuss solutions to maximize the scarecrow's function.

## STEAM Literacy Development Indicators

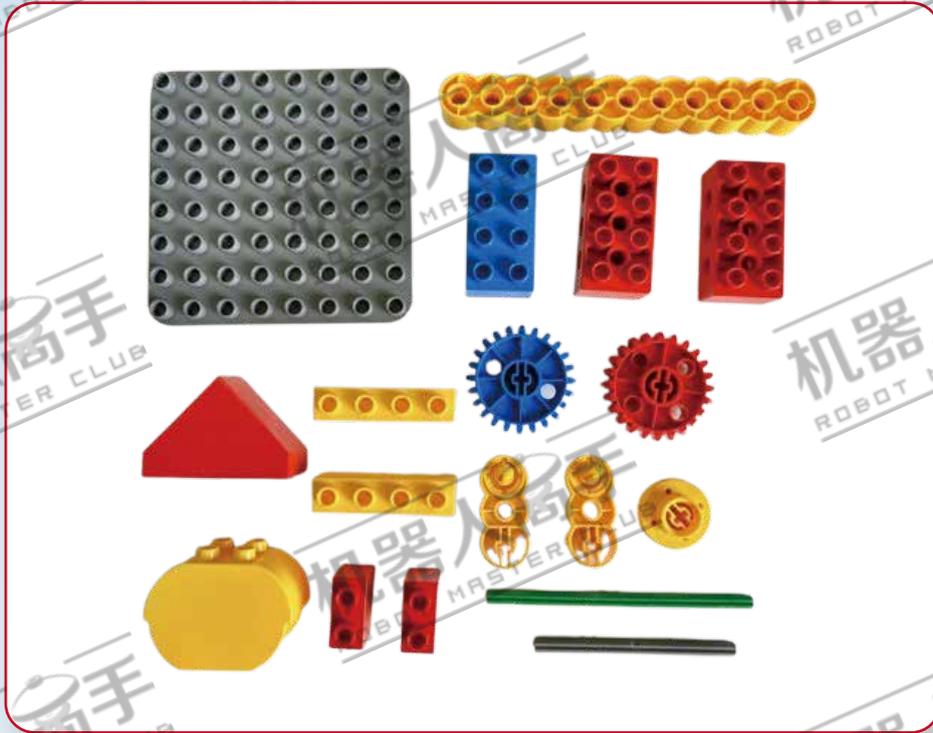
Method Indicator	Story-based introduction: Understand the function of a scarecrow	Build a scarecrow using bevel gears	Test the operation of the bevel gears	Knowledge expansion: Strengthen functions
Curiosity and Imagination	●			
Flexibility and Adaptability		●		
Verbal and Written Communication Skills				
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 scarecrow is a figure made of straw that farmers place in fields to protect crops from birds and insects that damage grain. First, help children understand the function of scarecrows.
- Regarding bevel gears, regardless of whether children have prior knowledge, you can give a simple demonstration before building—showing the shape of the gear teeth and the vertical angle.
- Encourage children to use their imagination to creatively build the scarecrow; it does not have to be a traditional scarecrow. The meshing of bevel gears requires careful consideration and research to find the precise meshing and transmission angle.

**Find These Blocks**



**Build a Rotating Scarecrow Using Bevel Gears**

