

Excavator (Belt Drive)

Applicable Age Group 6+

Activity Objectives

- ☑ Understand the body structure of excavators and distinguish between the buckets of bulldozers and excavators
- ☑ Learn about common engineering vehicles (such as earth-turning trucks, bulldozers, cranes, etc.)
- ☑ Master the application of worm gear boxes and belt transmission

Activity Description

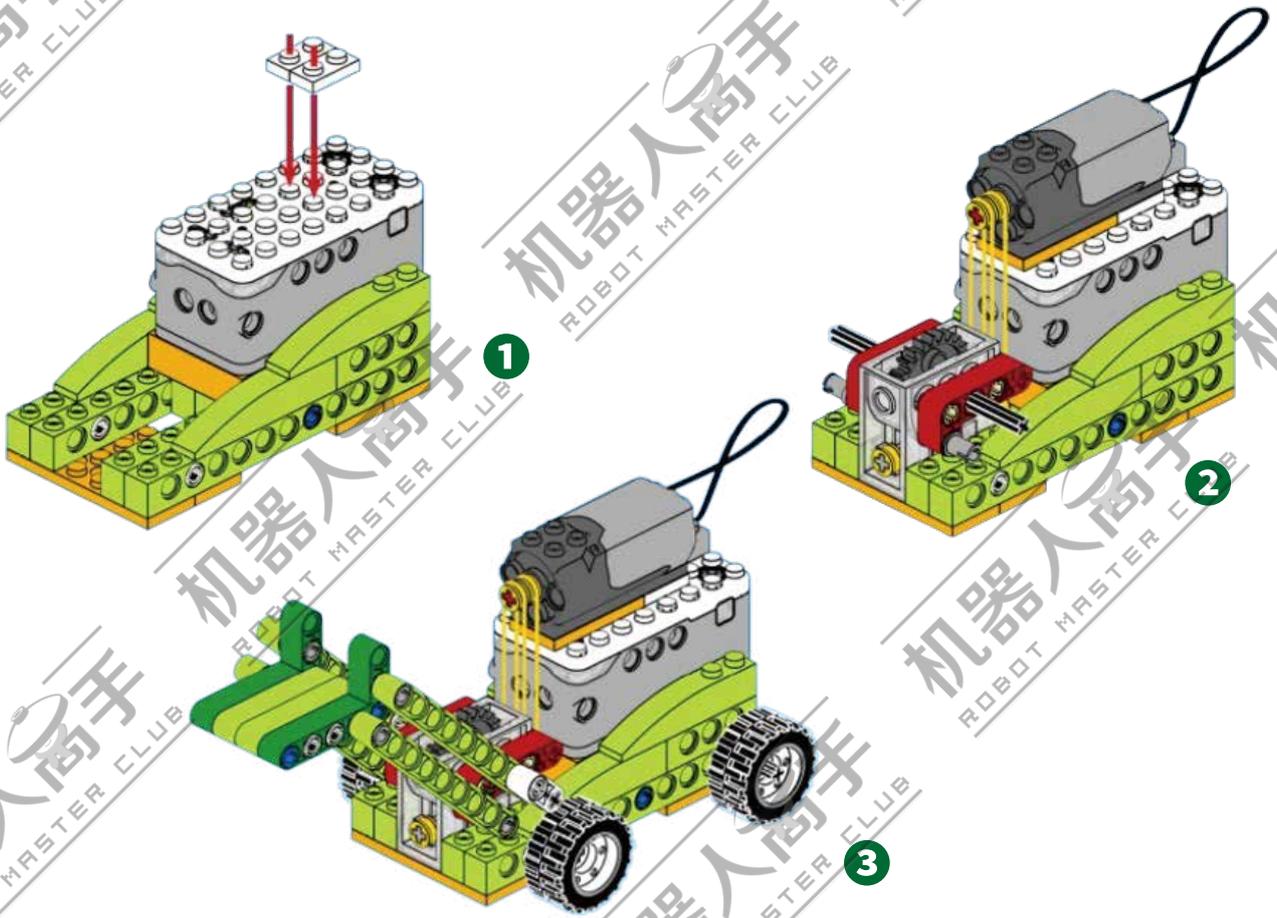
In this course, children will design an excavator based on belt transmission and worm gear boxes.

STEAM Literacy Development Indicators

Method Indicator	Situation Introduction & Problem Analysis	Using Belt Transmission to Construct	Testing Structural Stability and Smoothness	Understanding the Application of Transmission Structures
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				

Building Block List

	X 2		X 1		X 2		X 4
	X 1		X 1		X 2		X 1
	X 4		X 10		X 2		X 4
	X 2		X 6		X 2		X 4
	X 1		X 2		X 4		X 1
	X 1		X 4		X 2		X 1
	X 1		X 4		X 2		X 1
	X 1		X 6		X 4		X 2



Construction Steps

Makerzoid(App)-Robot Master(Kit)-Soccer Competition(Set)-5 Electric Engineering-33 Excavator (Belt Drive)