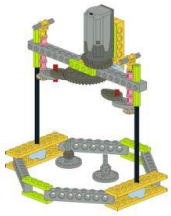
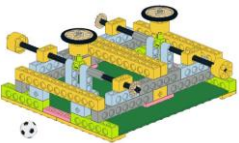


## Cranium Contraptions



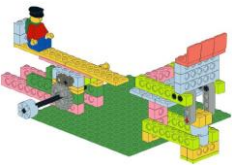
### Battle Tops

It's time for battle...with tops, that is! Spinning tops are some of the oldest known toys. They take on a whole new level of excitement when dropped into battle! After building the battle tops contraption, children will love to watch them spin and release them into the arena. Which top will be the last one spinning?! Vocabulary: *inertia, momentum, centrifugal force, precession, elapsed time*



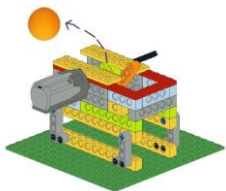
### Fooseball

Fooseball is a tabletop soccer game in which players control figurines on poles to kick a ball into the opponent's goal. This model is a miniature version of the game in which each player has one figure to control, in charge of both offense and defense. The small playing field provides a thrilling fast-paced game. Play for fun or for points! Vocabulary: *manufacturer, strategize, component, area*



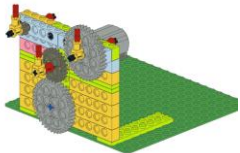
### Mini Fig Mover

There are many ways for people to get from Point A to Point B. Why not shoot through the air?! Children will learn how different types of people mover transit systems help people get around. This hands-on model allows children to practice applying different forces to get the mini figure onto the platform. How many tries will it take you? Vocabulary: *transit, collide, disassemble, energy, gravity, force*



### Ping Pong Popper

Ping Pong is the nickname that was given to the sport of table tennis. Players need to have good hand-eye coordination to excel at this game. Children will test their skills at grabbing the ball after the Ping Pong Popper model pops it up. Can you grab it before gravity pulls it down? Vocabulary: *agility, synchronized, potential energy, kinetic energy, gravity*



### Crazy Gears

Get those gears turning! Children will learn how gears work and see some familiar objects that utilize gears. The Crazy Gears model allows children to observe different rotation speeds made by different size gears. Vocabulary: *mesh, force, kinetic energy, gear ratio*

### Drawing Machine

Do you like to draw? The Drawing Machine does! This contraption holds a marker and draws a design based on the movement of the "arm." Children can predict what they think the design will look like, and use their imaginations to describe what the machine has drawn. Move the baseplate of the model to manipulate the marker and modify the drawing. Don't forget to name your finished work of art! Vocabulary: *complex, utensil, leisure, emotions*

