

Name: _____

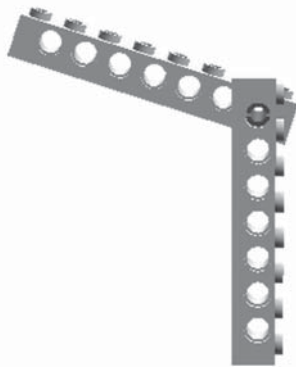
Day 4: Movable Joints

Learning about movable joints will help you understand how to make your robotic animal walk. So pay attention, this stuff is important!

HINGE JOINTS - There are many different types of joints, but this is the one we will be focusing on. A hinge joint only moves in one plane like your elbows or knees. You can only bend or straighten them, but you can not rotate them in different directions.

Here are example of how we make basic hinge joints.

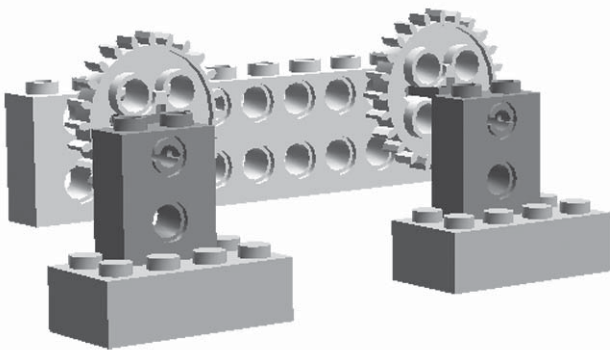
This is just 2 technic bricks held on by a pin. The pin allows the bricks to move making it a hinge joint.



This is a joint made with a gear and a technic piece. This allows the technic piece to rotate around as the gear moves and causes the brick to have a "stepping" action.



Can you figure out how to add joints to your gearbox and make it walk? Experiment with different ways to use the joints and see which one works the best in making a 4 legged animal.



Here is an example of the easiest way to use a hinge joint and turn them into legs. We will learn how to make more complex joints later. This is only half of the animal's legs. See if you can make this work!

Helpful Tip : Have you ever watched an animal walk? If you have, you will notice how 2 of their legs are forward and 2 are backward, just like the elephant below. Make sure to design your robotic animal the same way so it can walk.

