

Pushing and Pulling Things Around

Forces are interactions between objects that cause a push or a pull between them. We can use pushes and pulls to move objects. For example, to walk outside I have to push on the ground with my feet. Similarly, if I want to catch a baseball in my glove, I have to exert a force to stop it. Otherwise, it flies right past me.



In last couple of centuries, humans have gotten much better at using forces to push things around. For example, we've learned how to make engines (motors) that provide push by converting the energy from gasoline into mechanical energy that pushes on the wheels. These kind of engines are called combustion engines and both cars and motorcycles use combustion engines to provide their push.



We've also learned how to make motors that provide push by converting the electrical energy in a battery into mechanical energy that pushes. These battery operated motors aren't usually as powerful but they can still do lots of useful things. They can even change electrical energy into other forms of energy like light and sound.

In this STEM Challenge, your task is to use the push produced by a motor to move your Scooter Bot and allow it to draw a picture. Since the starting motion of the motor may be too smooth to move the robot, you must engineer a method that provides more push for your scooter bot. Good luck.