



Challenges:

Challenge 1: Write a program that makes the left wheel spin slowly clockwise for 5 seconds.

Now modify your program to make the wheel spin faster and then in the opposite direction.

Try to make the wheel turn for a longer time. Try the other wheel.

Note: Use the `rv.motor_left(speed,time)` and `rv.motor_right(speed,time)` functions available from the `Fns>Modul>ti_rover>I/O>Outputs` menu.

Speed values can be 0 (off) to 255 (full power)

Note: Be sure to flip Rover on its back before running your program.

Challenge 2: Write a program to make the Rover drive a straight path down the lane that is setup in your classroom.

Do you think you could backup down the lane?

Note: Use the `rv.motors("Left direction",Left Speed,"Right Direction",Right Speed,time)` function available from the `Fns>Modul>ti_rover>I/O>Outputs` menu.

Directions are clockwise ("**cw**") or counterclockwise ("**ccw**").

Speed values can be 0 (off) to 255 (full power)

Challenge 3 Part 1: Write a program to drive your Rover straight down the challenge lane and make it stop as close to the final target as possible without making contact.

You will use the `rv.forward(distance,"unit")` to explore the time that it takes Rover to drive different distances.

Part 2: Predict how long it will take your Rover to reach the mark.

Use `rv.forward(time)` to drive your Rover.

Can your Rover be the closest?

Note: `rv.forward(distance,"unit")` and `rv.forward(time)` are found toward the bottom of the `Fns>Modul>ti_rover>Drive` menu.



On-Ramp to Robotics Unit 1 Motion Control
TI-84 PLUS CE PYTHON AND THE TI-INNOVATOR™ ROVER

Skill Builder 1 Moving Forward
STUDENT CHALLENGES