



## Navigate “Math-hattan” Challenge

TI-NSPIRE CXII PYTHON AND THE TI-INNOVATOR™ ROVER

MATH IN MOTION *PLUS*

STUDENT CHALLENGES

### Challenges:

**Challenge 1:** Use the `rv.forward(distance, “unit”)` function to determine the rate that Rover drives forward, in meters per second.

**Challenge 2:** Use the `rv.left()` or `rv.right()` function to determine the rate that Rover turns, in degrees per second.

**Challenge 3:** Have Rover drive 1 meter forward in less than 5 seconds. Make use of the `rv.forward(distance, “unit”, speed, “unit”)` form of the function.

**Challenge 4:** Have Rover drive a rectangle using `rv.forward()` with distance and speed options, `rv.left()` and `rv.right()` functions that can be driven in exactly 10 seconds, ignoring the time it takes to turn.



## Navigate “Math-hattan” Challenge

TI-NSPIRE CXII PYTHON AND THE TI-INNOVATOR™ ROVER

MATH IN MOTION *PLUS*

STUDENT CHALLENGES

**Challenge 5:** Have Rover drive a square using `rv.forward_time()` with time and speed options, `rv.left` and `rv.right()` functions. At least two sides of the square should be driven at a different rate than the others.

**Challenge 6:** Navigate “Math-hattan”!

Have Rover navigate between the two locations that your team has been assigned. Be sure to follow the posted speed limits. Choose the path that will allow for the shortest time.