Module 3

Precision Forward Movement

When your robot moves forward, you might find sometimes if can slowly move to the left or right when you don’t want it to. Sometimes a wheel might slip or the robot hits a bump and now it is going the wrong way. In this module we’re going to right a self-correcting move program.

# Activity

## Step 1 – Move Forward

Add a forward moving block in a loop so it goes on forever.

*Hint: It is best to use the Move Steering block.*

## Step 2 – Read the Gyro Value

In the loop read the value of the Gyro sensor and wire into the steering value of the move block.

Run your program. You will notice the robot just spins around. Use a math block to adjust the value of the Gyro sensor so that it turns the right way.

*Hint: you need to multiply the value by a number before it goes into the steering block.*

## Step 3 – Test

Run your program, while the robot is moving forward pick it up and turn it to see if it returns back to the correct direction.

Make your robot correct itself as fast as possible while still being accurate.

## Step 4 – Distance

Your robot needs to stop at a certain distance. Change the condition on your loop to end the loop on a certain number of rotations.

*Hint: It doesn’t matter which motor you pick.*

## Complete

If your robot can accurately return to the correct direction quickly and at a speed of 50, you are done.