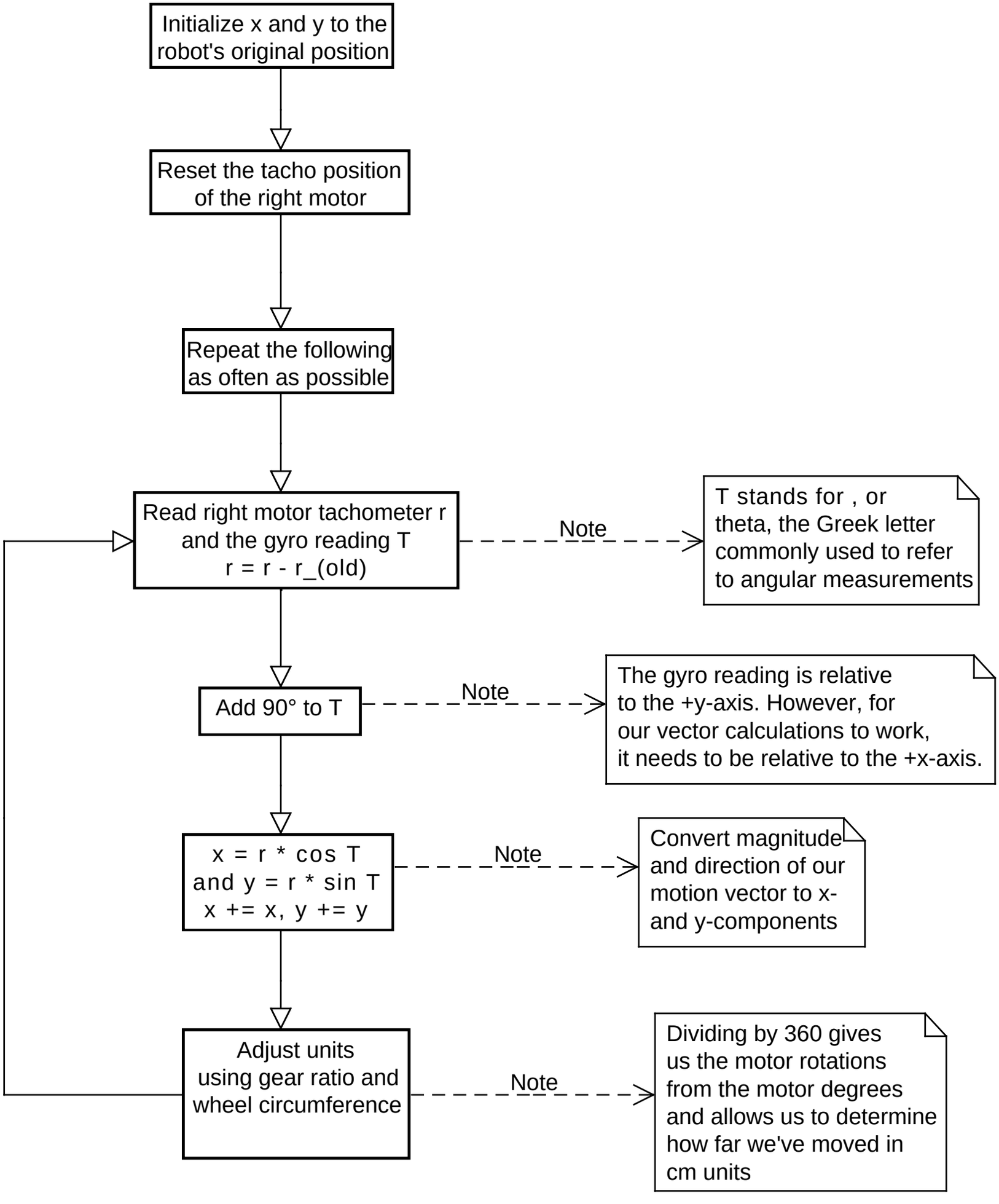
Initialize x and y to the robot's original position
Reset the tacho position of the right motor
Repeat the following as often as possible
Read right motor tachometer r and the gyro reading T
r = r - r_(old)
Note
T stands for , or theta, the Greek letter commonly used to refer to angular measurements
Add 90° to T
Note
The gyro reading is relative to the +y-axis. However, for our vector calculations to work, it needs to be relative to the +x-axis.
x = r * cos T
and y = r * sin T
x += x, y += y
Note
Convert magnitude and direction of our motion vector to x- and y-components
Adjust units using gear ratio and wheel circumference
Note
Dividing by 360 gives us the motor rotations from the motor degrees and allows us to determine how far we've moved in cm units