SENSING ACTION WITH FUNCTIONS I

yaw

This function calculates and returns the current yaw angle of the robot in degrees. The yaw angle is the amount of rotation around the Y axis. Positive angles indicate a rotation to the right, while negative angles indicate a rotation to the left.

xPos

This function measures and returns the X coordinate of the closest mosquito to the robot. Remember that the coordinates are in relation to a fixed X, Y, Z axis positioned at the base of the robot. Use the coordinate system in the top right corner of the simulation to help orient yourself.

zPos

This function measures and returns the Z coordinate of the closest mosquito to the robot. Remember that the coordinates are in relation to a fixed X, Y, Z axis positioned at the base of the robot. Use the coordinate system in the top right corner of the simulation to help orient yourself.

shoot()

This function instructs the robot to briefly activate and then deactivate its laser, firing a short beam in the direction that it is currently facing.

yawSpeed(speed)

The yawSpeed() **function tells the robot to start rotating its aim around the Y axis at a specified speed. A positive input rotates the robot clockwise, while a negative input rotates the robot anticlockwise (when looking down the axis). An input of zero stops the rotation.**

Math.PI

This function returns the value of pi. You can assign this value to a variable:
angle = Math.PI;
or use it directly in a calculation:
new_angle = angle * Math.PI / 180;

Math.atan(angle)

This function will return the arctangent (in radians) of the specified angle.

console.log(ouput)

This function will allow you to write text to the console. This function might be useful while debugging. For example, checking the values of any variables you declare by displaying their values in the console, or checking when an IF statement is being executed. If you want to write custom strings to the console, make sure that you enclose them in quotes, like so:
console.log("hello world")

Delay(seconds)

This function will cause your code to pause execution for a specified amount of seconds. This function may be useful if you want your code to wait until the value of a sensor has updated or to avoid spamming output to the console.