MyMakers

The Kp value for line-following should be set according to the track: start with 0.35 or adjust as appropriate for a straight line, set it to 0 if there is no line, and increase it as needed for a curved line until the robot can follow the curve without going off track.

There are three variables:

'f' means the robot will move slowly until the front sensor detects a black surface.

'c' means the robot will move slowly until the sensor between the wheels detects a black surface.

'n' means the robot will not move at all, i.e., it will not use any conditions.

There are four variables:

's' means the robot will stop.

'p' means the robot will cross over to the other side of the line.

'l' means the robot will turn left.

'r' means the robot will turn right.

This is a delay value for the robot's response when selecting variables for turning or stopping. For example, if the robot is set to turn and the sensor touches the line but the robot turns past the line instead of aligning with the middle, increase this value. If it does not turn enough, decrease it. The same applies to stopping.

The left and right motor speeds range

fline(50, 50, 0.45, "a0", 'f', 'p', 50, "a6", 10);

These are the target control values for line-following, which include two types of variables:

1. Using sensors to determine the target:

0: The robot will move until the front sensor detects a cross line that is perpendicular to the current line. Upon detecting the line, the target is achieved.

"a0": The robot will move until the front sensor labeled a0 detects a cross line, which may or may not be perpendicular to the current line. Upon detecting the line, the target is achieved.

"a7": The robot will move until the front sensor labeled a7 detects a cross line, which may or may not be perpendicular to the current line. Upon detecting the line, the target is achieved.

2. Using distance to determine the target:

Enter any number starting from 1. The number represents the distance in approximate centimeters.

This variable represents the turning speed and only has an effect when using the 'l' variable (robot turns left) or the 'r' variable (robot turns right).

This variable is used to set the black line detection for stopping when the robot is turning, applicable when using the 'l' or 'r' variables.

For turning left ('l'), select from "a0", "a1", "a2", "a3".

For turning right ('r'), select from "a7", "a6", "a5", "a4".

The exact choice depends on the turning speed.