

# Follow the Line

Open one hint at a time. Try it before you open the next.

## - Hint 1 — Think about it

The sensor reads a **brightness** number: white floor is high, black tape is low. The *edge* of the line is in between — the average. If the reading is above that, you are drifting onto white: steer one way. Below it: steer the other way. The further away, the harder you steer. The turret stays centred.

## - Hint 2 — Which blocks to use

|                                          |                                             |
|------------------------------------------|---------------------------------------------|
| color sensor F reflected light %         | The brightness number: your steering input. |
| repeat until < color sensor sees green > | Keeps following until the finish.           |
| motor ( D ) go to position ( number )    | Steering = (reading – target) × K.          |
| start moving forward (slow speed)        | Slow is more accurate. Start at 25 %.       |

## - Hint 3 — Plan in plain words

1. Measure the white floor and the black tape reflection; target = the average.
2. Start moving slowly.
3. Loop until green: steering = (reading – target) × K.
4. Stop and celebrate.

**Watch out:** If the car steers *away* from the line, flip the sign of K. If it wobbles, make K smaller or the speed lower. The edge of the tape can flicker as “green” — ask for green twice in a row. Rear-steering cars need **gentle** curves.

Playbook: Follow the line · Green means go

**Keep going:** Challenge → [mission-6-challenge.pdf](#) | Solution → [mission-6-solution.pdf](#)

The same content is in the matching .html files.