

5. Case 03: Line Tracking

5.1. Purpose

- Programme to set the TPBot driving along with the black line.

5.2. Material

- 1 x [TPBot](#)

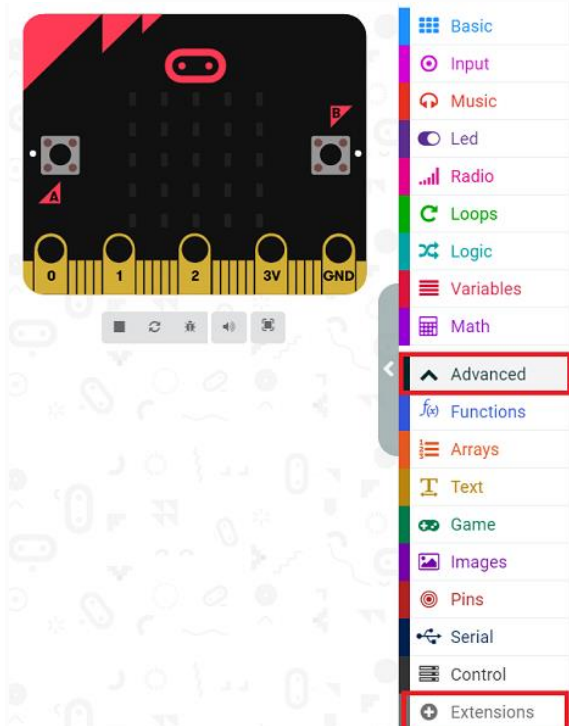


5.3. Software

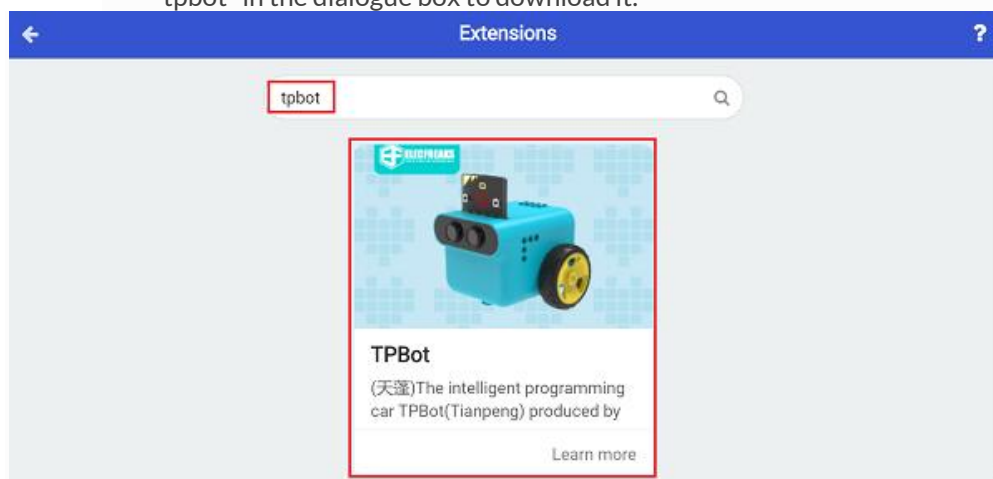
[MicroSoftmakecode](#)

5.4. Programming

- Click “Advanced” to see more choices in the MakeCode drawer.



- We need to add a package for programming. Click “Extensions” in the bottom of the drawer and search with “tpbot” in the dialogue box to download it.



##Sample

- Judge the status of the line-tracking sensors: if the black was detected on the left, set the speed of the left wheel in 0 and the right in 40; if the black was detected on the right, set the speed of the left wheel in 40 and the right in 0.

```
on start
  show icon [ikon megjelenítése]

forever
  if Line sensor state is [••] then
    Set left wheel speed at 20 % right wheel speed at 20 %
  +
  if Line sensor state is [•◊] then
    Set left wheel speed at 10 % right wheel speed at 40 %
  +
  if Line sensor state is [◊•] then
    Set left wheel speed at 40 % right wheel speed at 10 %

indításkor
  ikon megjelenítése

állandóan
  ha Line sensor state is [••] akkor
    Set left wheel speed at 20 % right wheel speed at 20 %
  +
  ha Line sensor state is [•◊] akkor
    Set left wheel speed at 10 % right wheel speed at 40 %
  +
  ha Line sensor state is [◊•] akkor
    Set left wheel speed at 40 % right wheel speed at 10 %
```

Link

- Link: <https://makecode.microbit.org/4WML7wLL5DDJ>
- You may also download it directly below:

5.5. Conclusion

- TPBot drives along with the black line.

5.6. Exploration

5.7. FAQ

Q: The car does not work with the code in the wiki.

A: It should be the batteries that are lack of power, please try to fix it by adding the value of the speed in the code.