## 17. Case15: Speed Adjustable TPBot

### 17.1. Purpose

- Adjust the speed of the TPBot with the potentiometer.

### 17.2. Material

- 1 x TPBot

### 17.3. Hardware connection

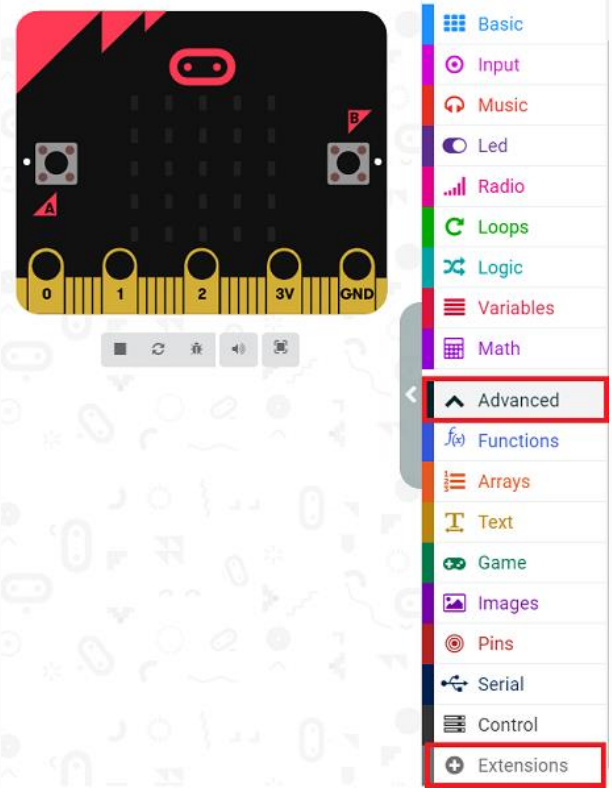
Connect potentiometer to port 1 on TPBot.

### 17.4. Software

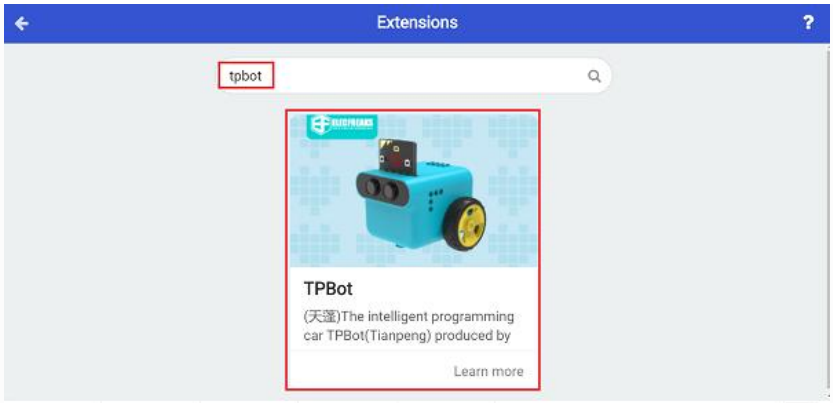
MicroSoftmakecode

### 17.5. Programming

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



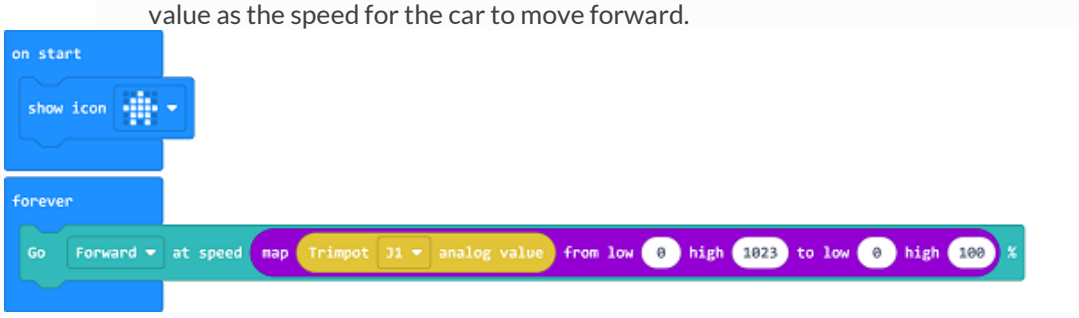

- We need to add a package for programming. Click “Extensions” in the bottom of the drawer and search with “tpbot” in the dialogue box to download it.




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


##Sample

- Drag the show icon brick into on start.
- In forever brick, map the returned value of the potentiometer from 0~1023 to 0~100, and set the mapping value as the speed for the car to move forward.





**Link**

- Link：https://makecode.microbit.org/_ArRM71PD6de0
- You may also download it directly below:

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**17.6. Conclusion**

- After powering on, the speed of the TPBot could be adjusted by the potentioneter.

**17.8. FAQ**

Q: While operating this case, why the car might not work properly?

A: It might be the low power of the batteries, please try adding the value of TPBot’s speed and test again.