19. Case17 : Gesture-controlled TPBot

19.1. Purpose

• Control the movement (forward, back, turn left/right) by your hands gesture.

- 19.2. Material
- 1 x <u>TPBot</u>



19.3. Hardware connection

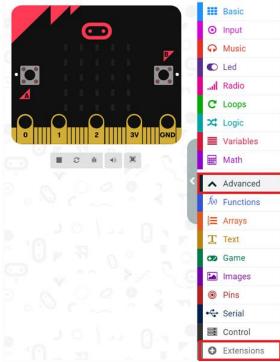
Connect gesture sensor to IIC port on TPBot.



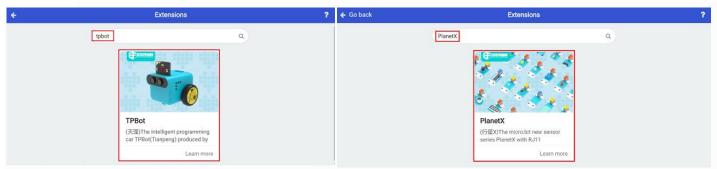
19.4. Software

MicroSoftmakecode 19.5. 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 search with "PlanetX" in the dialogue box to download it.



19.6. Sample

- Drag the show icon brick into on start.
- Detect the hands gesture through the gesture sensor, set the car to move forward at the speed of 40% for 1s while detecting your hand waving upward.
- Code with a similar way for the gesture of waving downward, left and right.

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on start show icon	ikon megjelenítése
	Gesture sensor IIC port is Up ▼
Gesture sensor IIC port is Up Go Forward at speed 40 % for 1 seconds	Go Forward v at speed 40 % for 1 seconds
	Gesture sensor IIC port is Down -
Gesture sensor IIC port is Down - Go Backward - at speed 40 % for 1 seconds	Go Backward ▼ at speed 40 % for 1 seconds
Gesture sensor IIC port is Left Go Left at speed 40 % for 1 seconds	Gesture sensor IIC port is Left Go Left at speed 40 % for 1 seconds
Gesture sensor IIC port is Right ♥ Go Right ♥ at speed 40 % for 1 seconds	Gesture sensor IIC port is Right - Go Right - at speed 40 % for 1 seconds

Link

- Link : <u>https://makecode.microbit.org/ PqAPVDY7hDRR</u>
- You may also download it directly below:

19.7. Conclusion

• Face your hands onto the gesture sensor, control TPBot's movement with your hands gesture. 19.9. 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.