# 3. Case 01: Running Control

## 3.1. Purpose

• Learn to control the movement of TPBot via programming.

## 3.2. Materials

• 1xTPBot

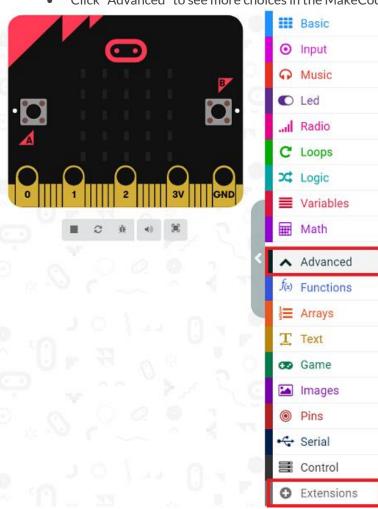


## 3.3. Software

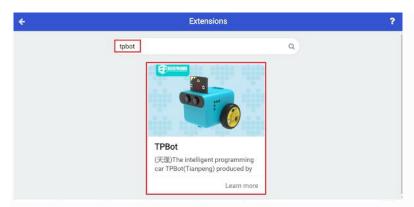
## <u>MicroSoftmakecode</u>

# 3.4. 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 A

• Drag the brick of setting the speed in both 100 for both wheels of TPBot into the "On Start".

```
on start

Set left wheel speed at 100 % right wheel speed at 100 %
```

### Link

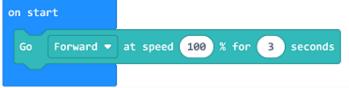
- Link: <a href="https://makecode.microbit.org/">https://makecode.microbit.org/</a> 0r5C5L029L9m
- You may also download it directly below:

### 3.5. Conclusion

TPBot keeps moving forward.

### ##Sample B

Drag and set the brick of moving forward at the speed of 100 and lasting for 3 seconds into the "On Start".



## Link

- Link: <a href="https://makecode.microbit.org/">https://makecode.microbit.org/</a> XXH3yP66oRRp
- You may also download it directly below:

### 3.6. Conclusion

• TPBot moves forward at full speed for 3 seconds and then stops.

### ##Sample C

 Drag and set the brick of moving forward at the speed of 100 into the brick of "while button A being pressed", then set to pause for 2000ms, and drag the stops immediately brick as the pic says.

```
on button A ▼ pressed

Go Forward ▼ at speed 100 %

pause (ms) 2000 ▼

Stop the car immediately
```

### Link

- Link: <a href="https://makecode.microbit.org/6i4awR07MA7E">https://makecode.microbit.org/6i4awR07MA7E</a>
- You may also download it directly below:

## 3.7. Conclusion

• While button A being pressed, TPBot moves forward at the full speed for two seconds and then stops.