## 2.1. Add Python File

Download to unzip it: EF Produce MicroPython-master Go to Python editor



We need to add TPBot.py for programming. Click "Load/Save" and then click "Show Files (1)" to see more choices, click "Add file" to add TPBot.py from the unzipped package of EF\_Produce\_MicroPython-master.

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### 2.2. Samples

2.3. Sample 1: Drive the car at a full speed. from microbit import \* from TPBot import \*

```
tp = TPBOT()
tp.set_motors_speed(100,100)
```

# 2.4. Result

The speed of the left and right wheels is at 100, the car moves forward at the full speed. 2.5. Sample 2: Turn the headlights on in random colors from microbit import \* from TPBot import \* import random

tp = TPBOT()

#### while True:

```
R = random.randint(0,255);
G = random.randint(0,255);
B = random.randint(0,255);
tp.set_car_light(R,G,B)
sleep(500)
```

2.6. Result

The headlights light up in different colours at random. 2.7. Sample 3: Obstacles avoidance

```
from microbit import *
from TPBot import *
tp = TPBOT()
while True:
    i = tp.get_distance(0)
    if i>3 and i<30:
        tp.set_motors_speed(-50, 50)
        sleep(500)
    else:
        tp.set_motors_speed(50, 50)
2.8. Result</pre>
```

The TPBot turns its direction once it detects any obstacle ahead of it. 2.9. Sample 4: Link-tracking from microbit import \* from TPBot import \*

```
tp = TPBOT()
while True:
    i = tp.get_tracking()
    if i == 10:
        tp.set_motors_speed(10, 50)
    if i == 1:
        tp.set_motors_speed(50, 10)
    if i == 11:
        tp.set_motors_speed(25, 25)
```

## 2.10. Result

The TPBot drives along with the black line. 2.11. Sample 5: Control the servo from microbit import \* from TPBot import \*

```
tp = TPBOT()
while True:
    tp.set_servo(1,180)
    sleep(1000)
    tp.set_servo(1,0)
    sleep(1000)
```