

Noise pollution monitoring

-Internet of things

main.py

```
'''
```

```
from machine import Pin, ADC
```

```
from time import sleep
```

```
pot = ADC(Pin(2))
```

```
pot.atten(ADC.ATTN_11DB)    #Full range: 3.3v
```

```
#ADC.ATTN_0DB: Maximum voltage of 1.2V
```

```
#ADC.ATTN_2_5DB: Maximum voltage of 1.5V
```

```
#ADC.ATTN_6DB: Maximum voltage of 2.0V
```

```
#ADC.ATTN_11DB: Maximum voltage of 3.3V
```

```
while True:
```

```
    pot_value = pot.read()
```

```
    print(pot_value)
```

```
    sleep(0.1)
```

```
'''
```

```
import machine, time
```

```
a = machine.ADC(machine.Pin(32))
```

```
while True:
```

```
    sample = a.read() # we want 16 bits, a.read() returns 10 bits
```

```
    print(sample)
```

```
    time.sleep(1/44100)
```

diagram.json:

```
{
  "version": 1,
  "author": "Gokul Raja",
  "editor": "wokwi",
  "parts": [
    {
      "type": "wokwi-esp32-devkit-v1",
      "id": "esp",
      "top": -52.9,
      "left": 62.2,
      "attrs": {"env": "micropython-20231005-v1.21.0"}
    },
    {"type": "wokwi-microphone", "id": "mic", "top": -16.98, "left": 263.79, "attrs": {}}
  ],
  "connections": [
    ["esp:TX0", "$serialMonitor:RX", "", []],
    ["esp:RX0", "$serialMonitor:TX", "", []],
    ["mic:1", "esp:D2", "green", ["v0"]],
    ["mic:2", "esp:GND.1", "green", ["v0"]]
  ],
  "serialMonitor": {"display": "plotter"},
  "dependencies": {}
}
```

Wokwi platform address:

<https://wokwi.com/projects/378838945740627969>