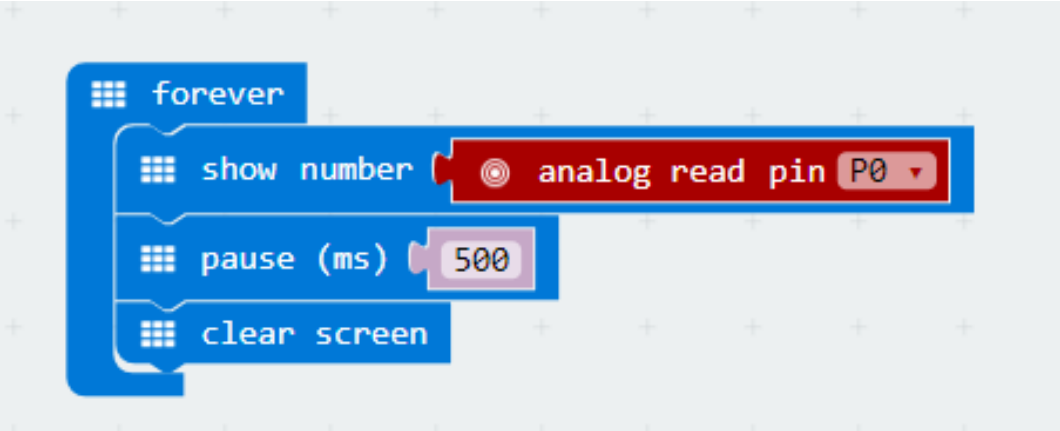
Analogue to Digital Converter (ADC) Program



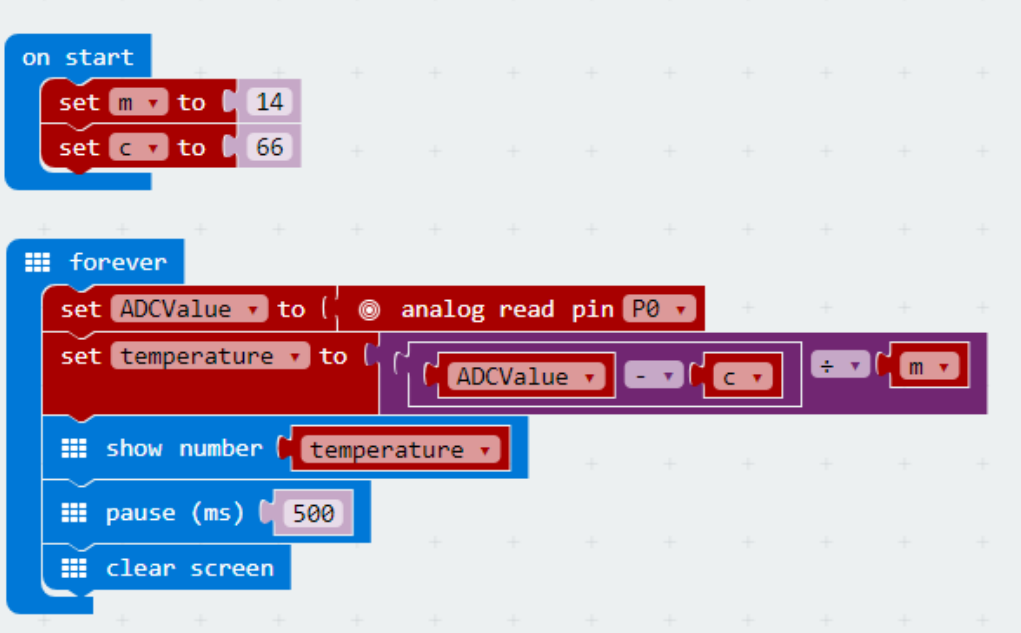
- Go to www.microbit.org/code and open the **JavaScript Blocks Editor.**
- Drag the file **microbit-ADCreading-jsb.hex** onto the work area.
- Use this program to read out the **ADCValue** for a given temperature, by doing your two point calibration.
- Use your **Calibrating Thermistor handout** to help with this.

Analogue to Digital Converter (ADC) Program

```
1  from microbit import *
2
3  while True:
4      reading = pin0.read_analog()
5      display.scroll(str(reading))
6      sleep(500)
7      display.clear()
```

- Go to www.microbit.org/code and open the **Python Editor.**
- Drag the file **ADCReading.py** onto the work area.
- Use this program to read out the **ADCValue** for a given temperature, by doing your two point calibration.
- Use your **Calibrating Thermistor handout** to help with this.

Example Thermometer Program – JavaScript Blocks Editor



- Go to www.microbit.org/code and open the **JavaScript Blocks Editor.**
- Drag the file **microbit-temperature-jsb.hex** onto the work area.
- With the correct ‘m’ and ‘c’ values added this program will act as **thermometer** and display the temperature.
- Test it, download it and **experiment** with how it works!

Example Thermometer Program – Python Editor

```
1  from microbit import *
2
3  m = 14
4  c = 66
5
6  while True:
7      reading = pin0.read_analog()
8      temperature = int((reading - c) / m)
9      if temperature < 10:
10         display.show(str(temperature))
11     else:
12         display.scroll(str(temperature))
13     sleep(500)
14     display.clear()
15
```

- Go to www.microbit.org/code and open the **Python Editor.**
- Drag the file **temperature.py** onto the work area.
- With the correct ‘m’ and ‘c’ values added this program will act as **thermometer** and display the temperature.
- Test it, download it and **experiment** with how it works!