9b. talk2me (for UNO and Arduino Every)

Lets make a **serial communication** from our Arduino to our computer to monitor our changing numbers.

In the code below we will map the 0-1023 values to a custom range 10-500, send the 2 variables over the serial port and the Arduino Serial Monitor to view them. Click the serial monitor button in the toolbar and select the same baud rate used in the call to begin().

The circuit remains the same.

Code

```
int sensorPin = A0;    // select the input pin for the potentiometer
int ledPin = 2;        // select the pin for the LED
int sensorValue = 0;   // variable to store the value coming from the sensor
int outputValue = 0;   // variable to store a scaled value of the sensorvalue

void setup() {
  // declare the ledPin as an OUTPUT
  pinMode(ledPin, OUTPUT);
  // initialize serial communications at 9600 bps
  Serial.begin(9600);
}

void loop() {
  // read the value from the sensor:
  sensorValue = analogRead(sensorPin);

  // map or scale it to a custom range:
  outputValue = map(sensorValue, 0, 1023, 10, 500);

  // print the results to the Serial Monitor:
  Serial.print("sensor = ");
  Serial.print(sensorValue);
  Serial.print("\t output = ");
  Serial.println(outputValue);

  // turn the ledPin on
  digitalWrite(ledPin, HIGH);
  // stop the program for <sensorValue> milliseconds:
  delay(sensorValue);
  // turn the ledPin off:
  digitalWrite(ledPin, LOW);
  // stop the program for for <sensorValue> milliseconds:
  delay(sensorValue);
}
```