

Data Coaster

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PREPARED FOR

Interface Design 4 - Prof. Dr. Jens Geelhaar

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Interface Design - Media Art and Design (M.F.A.)



Customer Feedback

1. How honest is the feedback?
2. How many customers don't speak out?
3. How to retrieve product-specific feedback?

DataCoaster

Measures the consumption rate during a time interval

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How does it work?

Simulation:
components



Arduino



Force sensor

Simulation:

code

```
#include <EEPROM.h>

int addr = 0;

void setup() {

    Serial.begin(9600);

    pinMode(0, INPUT);

}

void loop() {

    int sensorval = analogRead(0);

    sensorval = map(sensorval, 0, 1023, 0, 100); //convert the values

    Serial.println(sensorval, DEC); //retrieve the values

    delay(60000); //add a delay of 1 minute

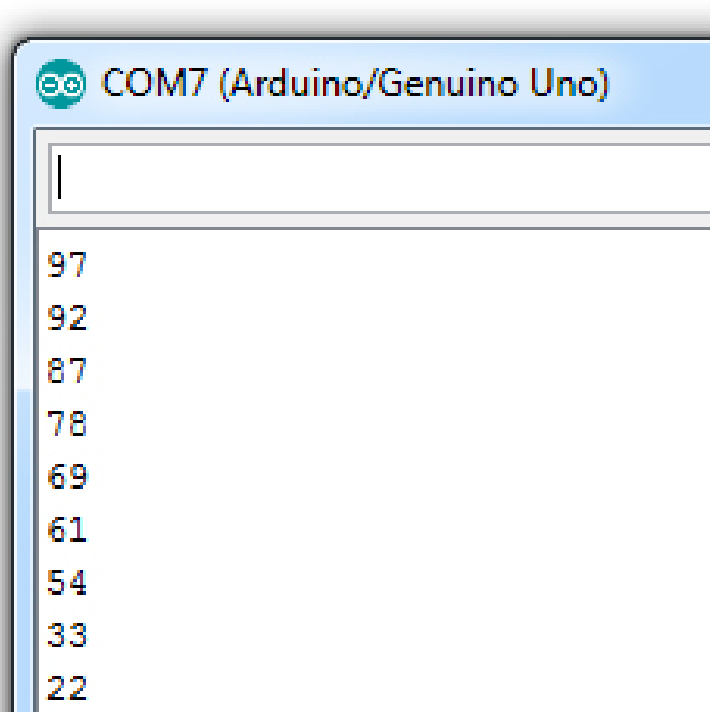
    EEPROM.write(addr, sensorval); //store the value on the equivalent byte

    addr = addr + 1; //move to the next byte

}
```

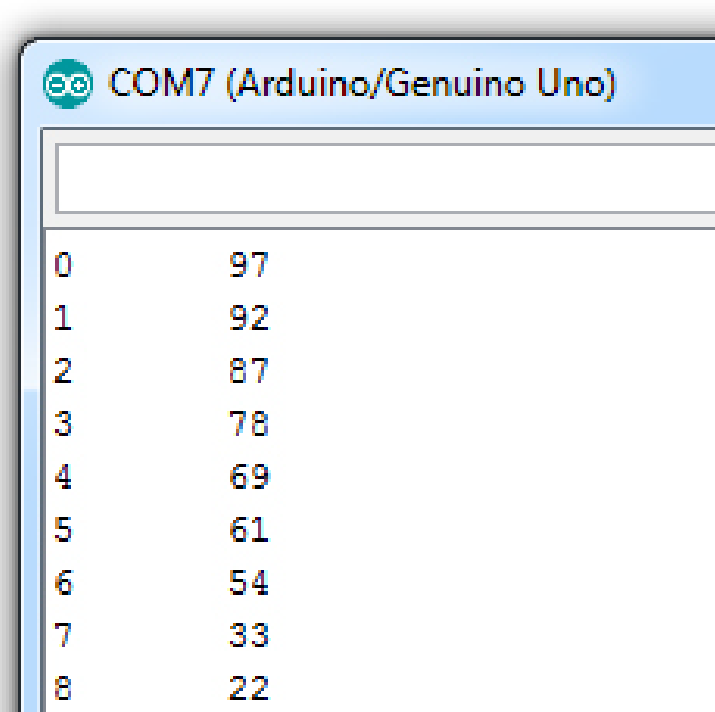
Simulation:

values stored and retrieved



```
COM7 (Arduino/Genuino Uno)
|
97
92
87
78
69
61
54
33
22
```

Sensor values



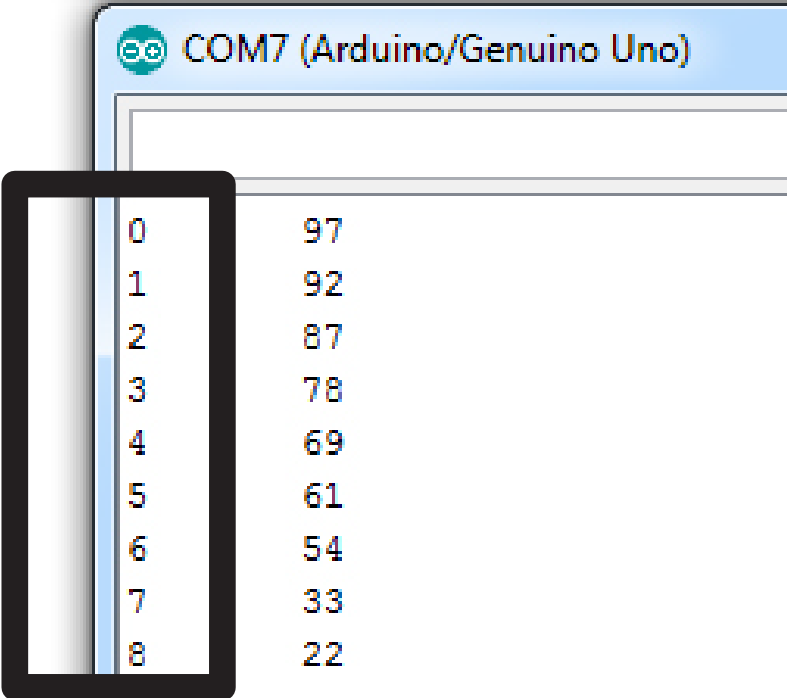
```
COM7 (Arduino/Genuino Uno)
|
0      97
1      92
2      87
3      78
4      69
5      61
6      54
7      33
8      22
```

Data retrieved

Simulation:

values stored and retrieved

EEPROM address (byte)
equivalent to minutes



EEPROM address (byte)	Value
0	97
1	92
2	87
3	78
4	69
5	61
6	54
7	33
8	22

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Future components?

Thank you!