Aapo: **Something could attach to car to travel and measure at a time**

Temperature? Outside-inside? Where we should attach, backpack? Car? Do we really need to measure temperature inside car?

Humidifier?

Battery charging problem

Could be attach to anywhere

Counting red light stop and calculate the time moving in a fix route

Or

**Robot vacuum cleaner to measure amount of dust**

Thanh: **create smart cloth which can measure blood pressure, moving data, etc…**

Water prof? how big?

Question to ask Juma: (prototype question) do it need a base station or send data directly to sever

Send data continuously or final data?

How long does it need to stand when carry outside the power source or base station

Where the data could display? On screen or web server?

Project: Smart Clothing

Our project is to make attachable device for any clothing that will read information about our body and send it to our linked phone and from there to main server. Device will have functions like step counter, distance tracker, temperature/humidify tracker (and pulse meter).

**Everything regarding project will be in Redmine**!

# Members roles (changes possible):

* Thanh: Project Manager
* Quynh (Leena): Coder
* Huy: Devops
* Aapo: HW design architect
* Quynh2: Final documentation
* Thanh2: Coder
* Viet: Quality/Testing

# Specification

* Measure:
  + Count steps (pedometer)
  + Calories burned (pedometer)
  + Distance, trip distance (pedometer)
  + Speed (pedometer)
  + Temperature
  + Humidity
* User input via USB:
  + Height
  + Weight
  + Age
* Goal advice
  + “Will tell the user to walk more if necessary”
  + Wired display to LCD (if time, make it wireless and sent to server)
* (Code: step counter (if time, code calorie burning and distance))

# Proto 2 DO THIS AGAIN:

* Pedometer and Temp/Humi module in PCB
* Wireless display to phone (or other screen, maybe BT)
* Battery powered
* Secure communication
* UDOO Neo board
* Web server for data collection

# Presentations:

* Video of working prototype for backup

How to make Full-Featured Pedometer Design Realized with 3-Axis Digital Accelerometer:

<https://www.analog.com/en/analog-dialogue/articles/pedometer-design-3-axis-digital-acceler.html#>

<https://publications.waset.org/16256/pdf>

Datasheet of sensor UDOO Noe uses:

<https://www.nxp.com/docs/en/data-sheet/FXOS8700CQ.pdf>

STP101M Datasheet:

<https://www.nicerf.com/Upload/ueditor/files/2016-08-29/STP101M%203D%20Pedometer%20Module-8650b5ad-95f4-4f99-9048-34ec630d6990.pdf>

LMT86 Datasheet:

<http://www.ti.com/lit/ds/symlink/lmt86.pdf>