



# ULTRA ORDINAIRE

PROJECT PRESENTATION

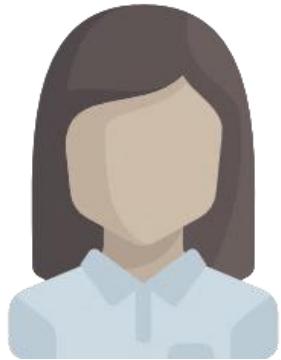
**Team members:**

Guangjie Zhang  
Jonathan Malique  
Sophie Rougeaux  
Agathe Limouzy  
Elie Taillardat

**Tutor:** Jérémie Grisolia



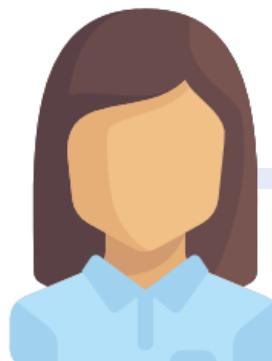
# TEAM MEMBERS



Nathalie BRUYÈRE



Elie TAILLARDAT



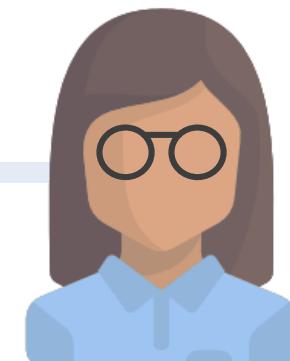
Sophie ROUGEAUD



Jonathan MALIQUE



Agathe LIMOUZY



Guangjie ZHANG



## SUMMARY



### I. ULTRA ORDINAIRE

### II. PROBLEMS TO SOLVE

### III. METHODS

### IV. RESULTS



# I. ULTRA ORDINAIRE



Duffau  
&Associés

Pierre Duffau & Nathalie Bruyère

**2010**

Practices in building architecture  
and design

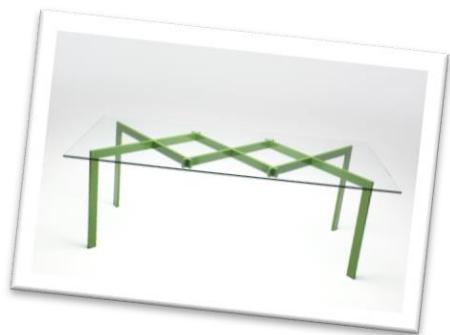
New approach of the architecture  
→ living space based on the  
individual's place



Association & group of research  
created by Duffau & Associés

**Goal :** to contribute to a society  
of sharing of knowledge

## II – PROBLEMS TO SOLVE



- **Custom desk:** We are in a society which prefers the uniformity of thinking and way of life.  
→ How can we develop **people creativity** with new technologies?
  
- **Self-Powered Lamp :** Society wants to change how it consumes its energy resources.  
→ How can we create light power without consuming useful energy, and in a mysterious way?



## III – METHODS

1

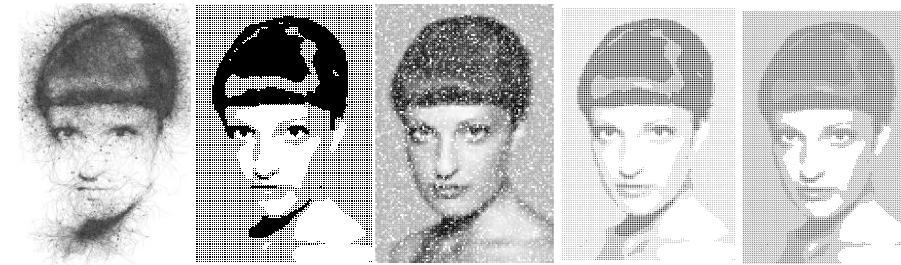
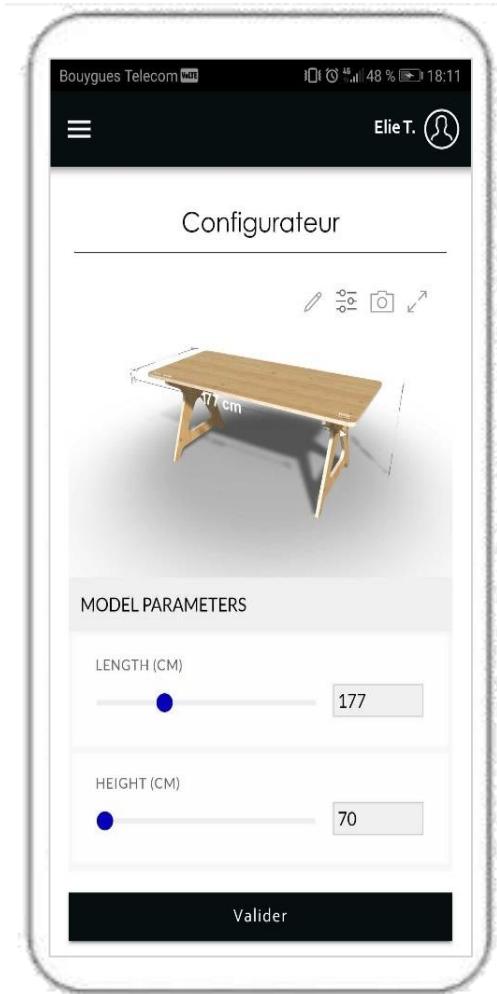
### DESK PERSONALIZATION

- Web, iOS and Android app
- Size of the desk
- Image engravement
- Request for quote\*





## III – METHODS



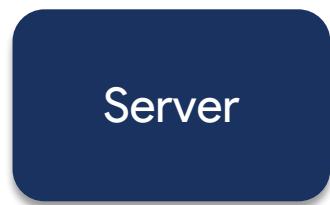


## III – METHODS



### DESK PERSONALIZATION

System config



Cross-platform  
development



iOS



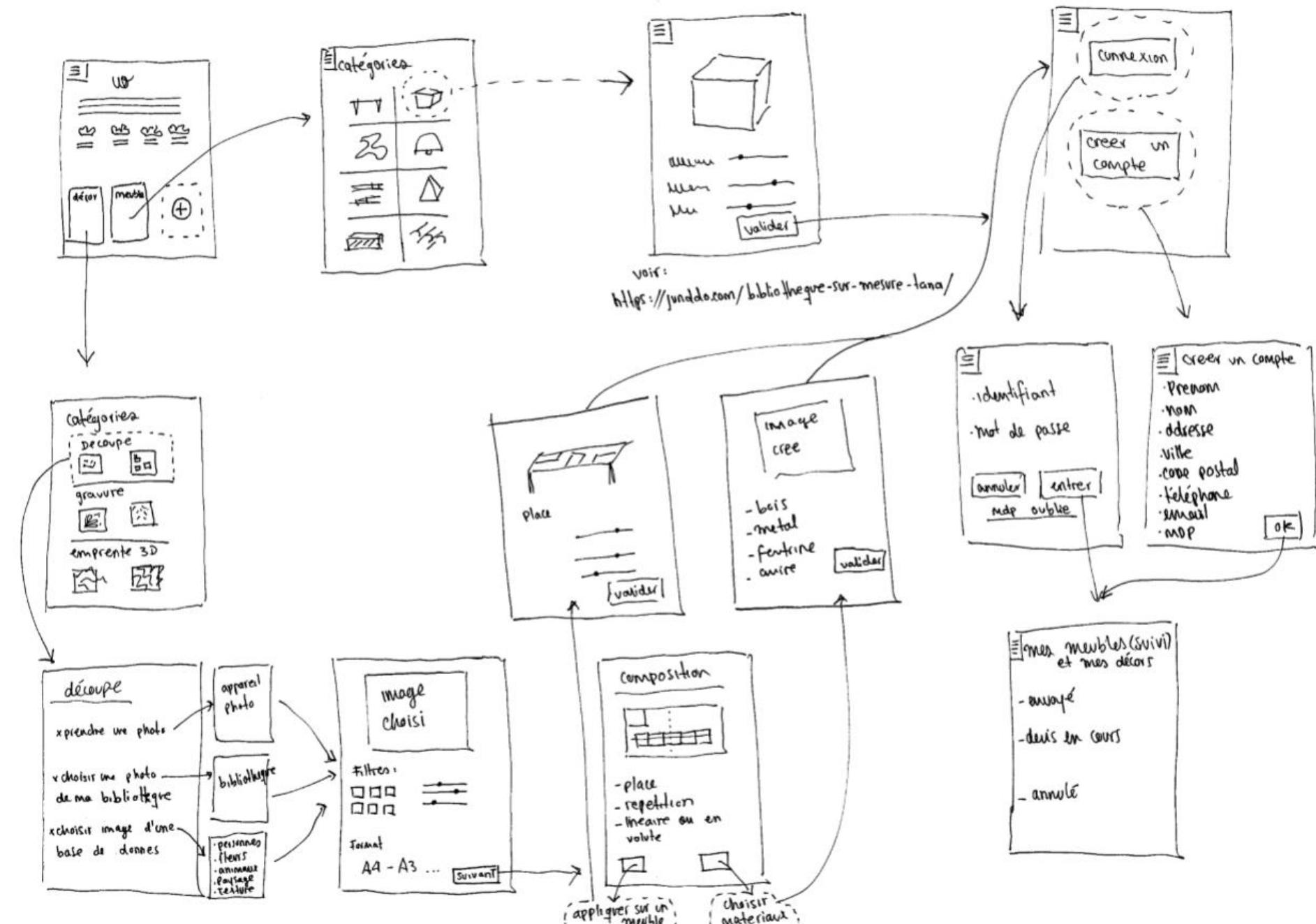
android



Website











## III – METHODS



### DESK PERSONALIZATION

3D models with Shape Diver



ShapeDiver

#### PLATFORM

- Manage 3D models
- Imbedded in application
- Web API for developers



### Image Filters

#### NEEDS

- Engraving + Imprinting + Embroidery
- Ready-to-use file (SVG)
- Different specifications (format)



#### METHOD



- Processing language (Javascript)
- Sublime Text
- Easy to integrate to the app

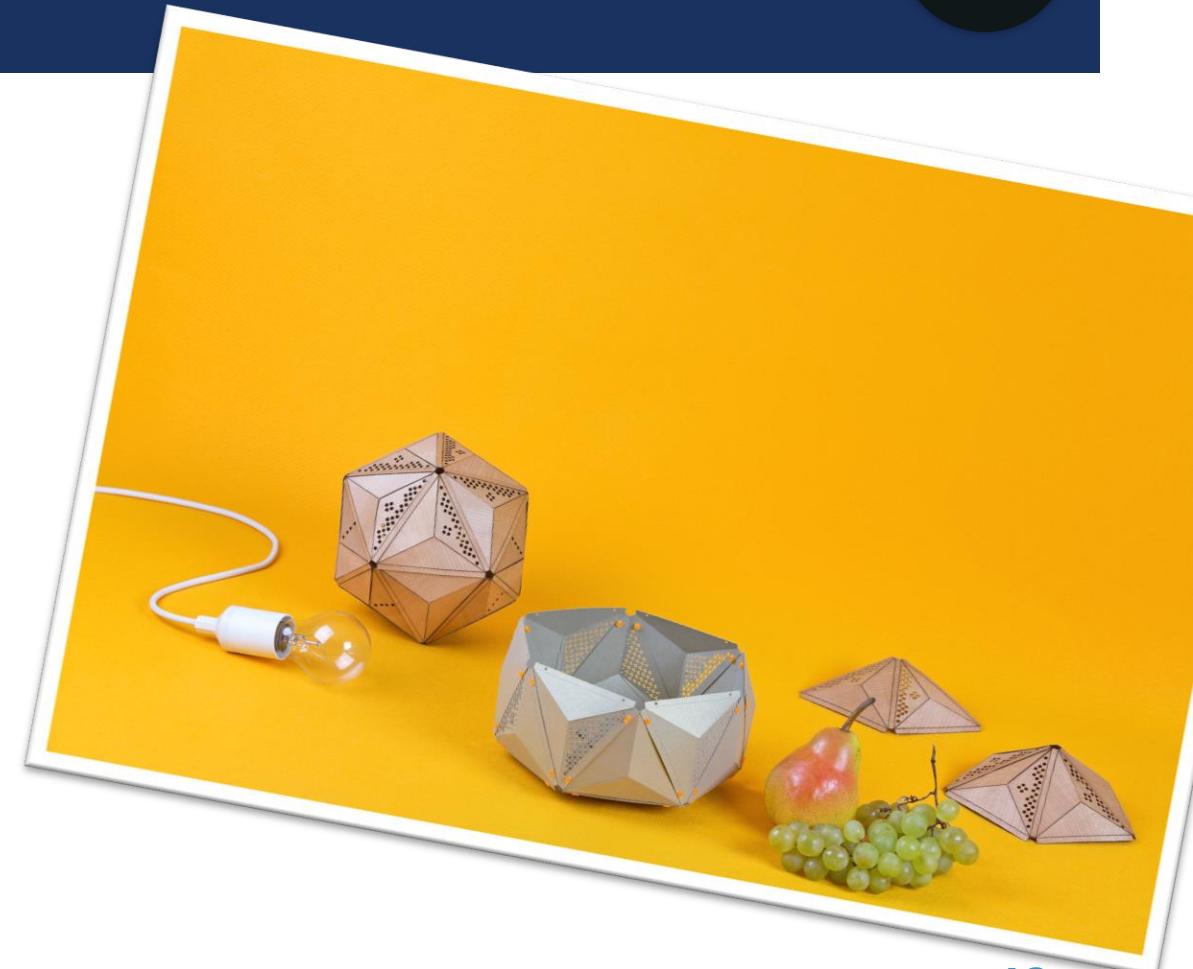


## III – METHODS

2

### SELF-POWERED LAMP

- State-of-the-art energy sources
  - Experimenting & prototyping
  - IoT connection and Android + iOS app
- Merge of design and technology





## III – METHODS

### SELF-POWERED LAMP

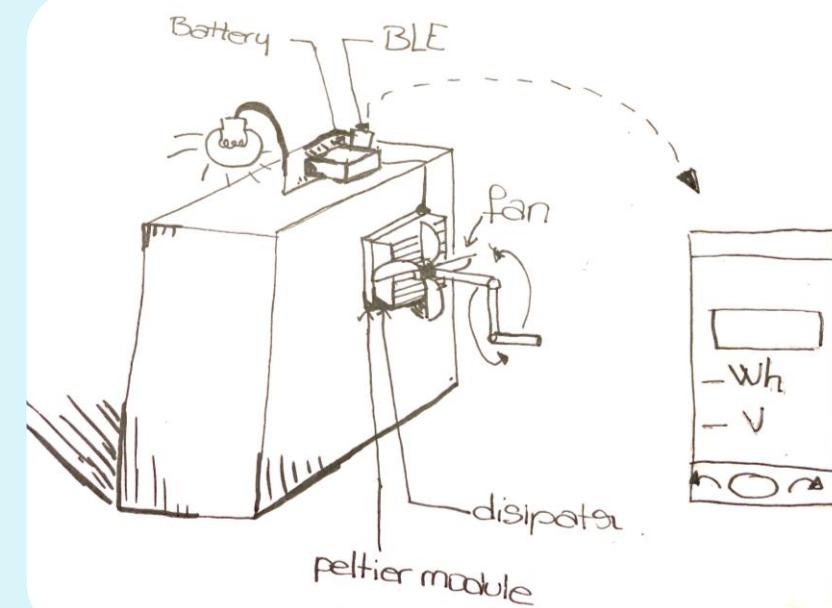
System config

#### State-of-the-art energy sources:

- Magnetic perpetual motion
- Thermoelectric
- Solar panels
- Chemical

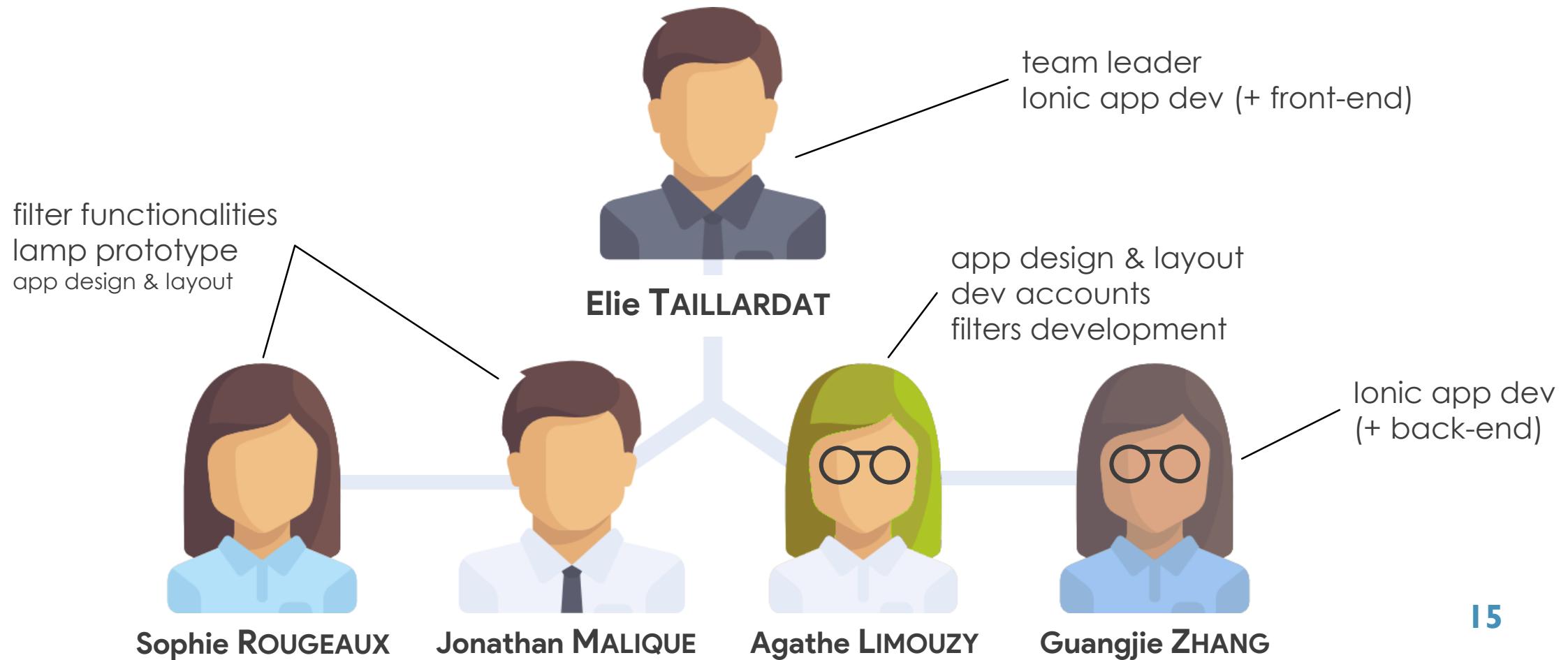
#### Final Idea:

Peltier Module for heat harvesting  
BLE for low-power IoT





# TASKS REPARTITION



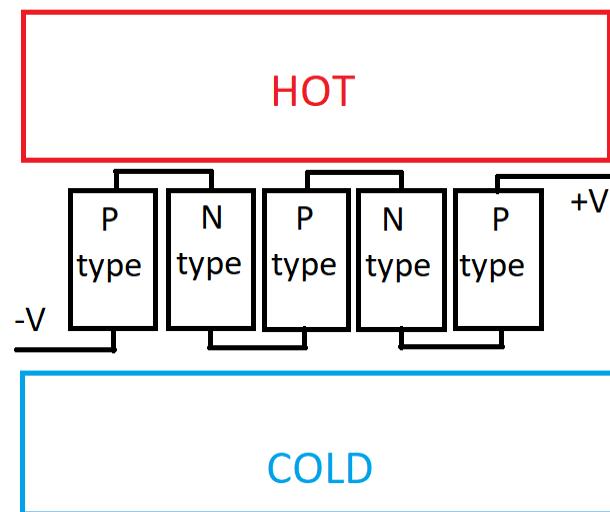


## IV – RESULTS

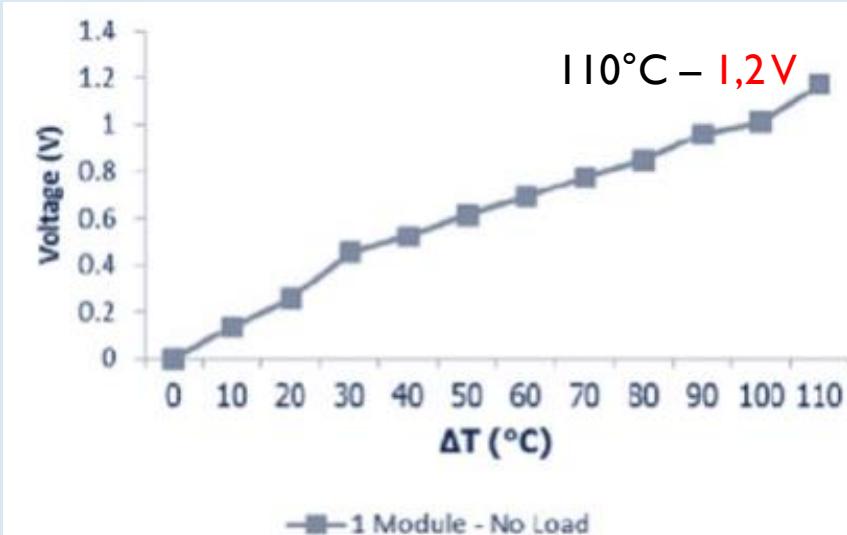
2

### SELF-POWERED LAMP

#### Peltier Module Principle



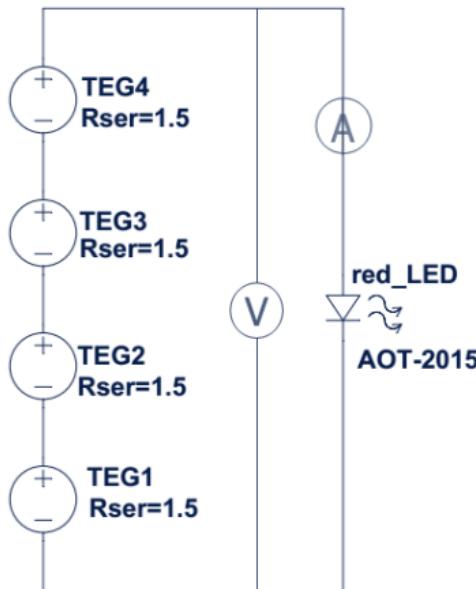
One Peltier Module  
not enough



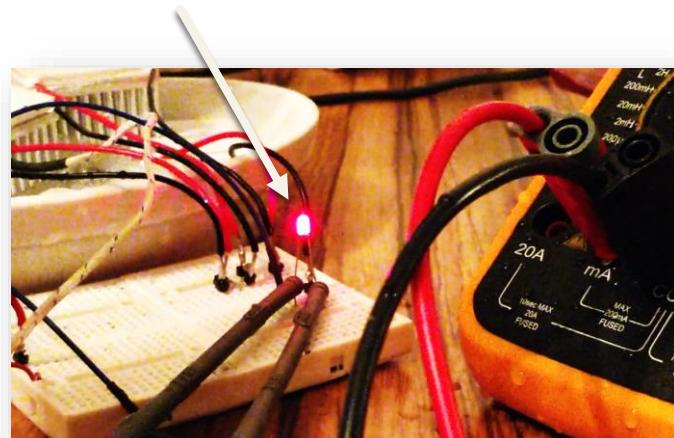
## IV – RESULTS

2

### SELF-POWERED LAMP



**Four Peltier Modules**  
with a red LED load: OK



$\Delta T$	30°C	40°C
<b>Voltage</b>	1,6 V	1,8 V
<b>Current</b>	5 mA	18 mA



## IV – RESULTS

2

# SELF-POWERED LAMP

## Achievements

- Quantifying possibilities and limits
- Basic prototype

## Improvements

- Energy harvesting chips
- Cooling fan
- IoT tech on battery



## IV – RESULTS

1

# APPLICATION

## System config & Design

ultraordinaire-9808b

```

UEjD3bgcWZd1rNcenxSGNTaRiwq1
  orders
    order_15-01-2019-10:50:02
  saved_models
    model_15-01-2019-10:50:02
    model_17-01-2019-15:20:17
  user_infos
    city: "Toulouse"
    firstname: "Elie"
    gender: "m"
    lastname: "Taillarda"
    more: "3ème étage"
    newsletter: true
    phone: "+33 6 95 42 75"
    postcode: "31400"
    street: "12 rue Marc Laffan
  
```

**Créer mon compte**

**Nom\***  
Nom

**Prénom\***  
Prénom

**Genre\***  
Choisir...

**Adresse\***  
Rue\*  
Complément  
Code postal\*

**Ville\***

**Téléphone\***  
Téléphone

**Email\***  
Email

**Mot de passe\***  
Mot de passe  
Le mot de passe doit contenir au moins 6 caractères avec majuscule, minuscule, chiffre et caractère spécial

**Confirmez mot de passe\***  
Confirmez mot de passe

**S'inscrire à notre newsletter**

**J'atteste avoir lu, compris et accepté toutes les conditions requises à l'utilisation de cette application.\***

**Créer mon compte**

Global design  
& Database

User-friendly

## IV – RESULTS

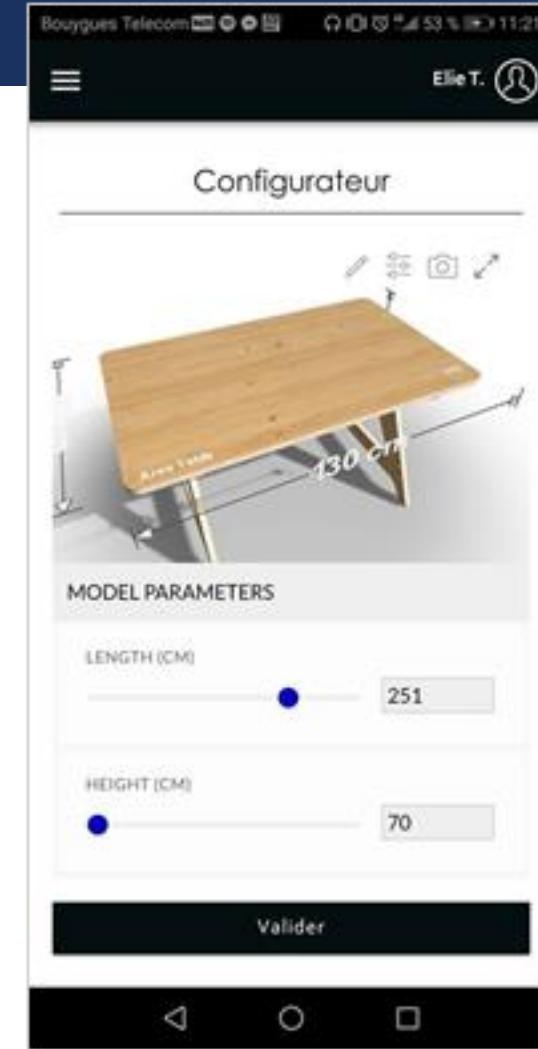


1

### APPLICATION



- Visualize the furniture in the app
- Permit users to choose the suitable parameters themselves
- See the changes in real time
- Model will be saved in database





## IV – RESULTS

1

### APPLICATION

Image filters

- Choice of several filters
- Canvas format
- Different formats & resolutions
- A5,A4,A3 & A2
- Saving to SVG





## IV – RESULTS



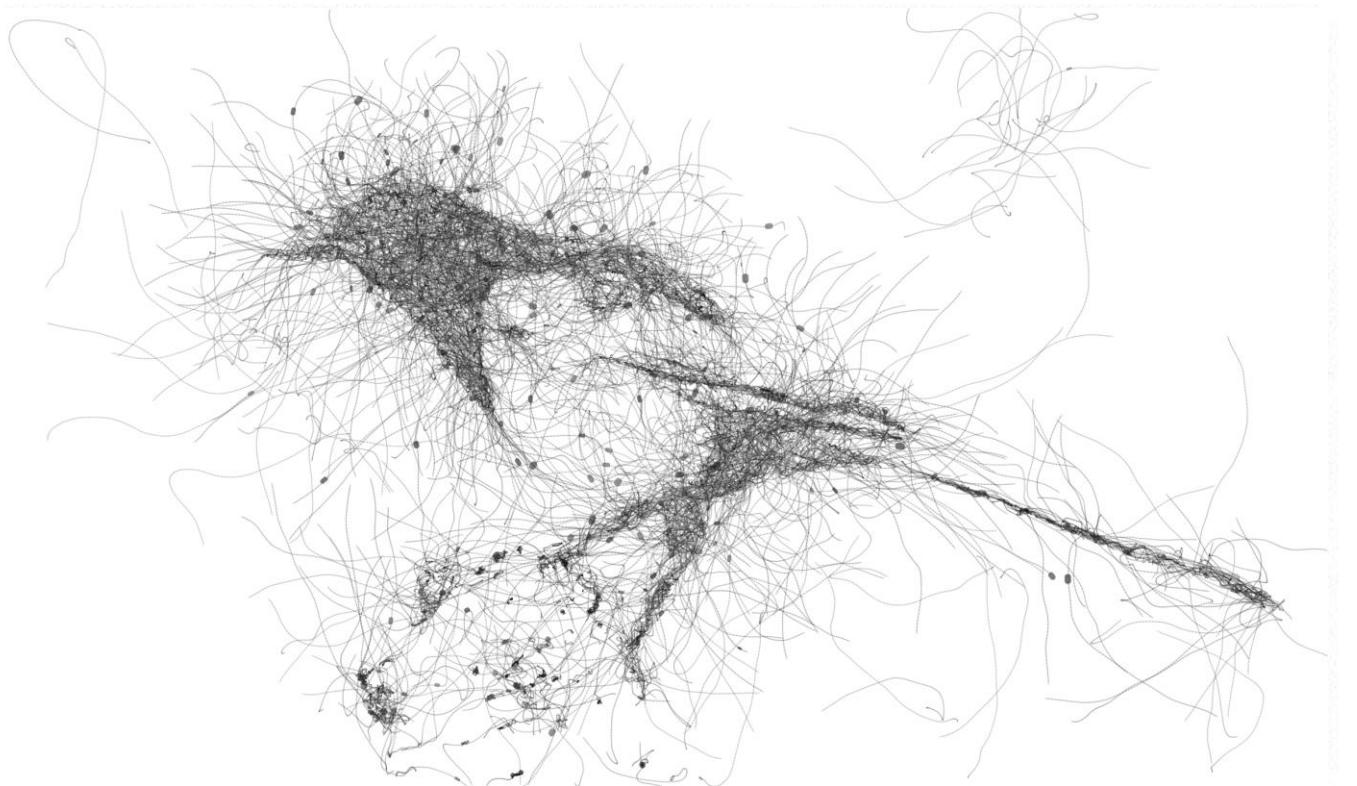
- Choice of several filters
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- Saving to SVG

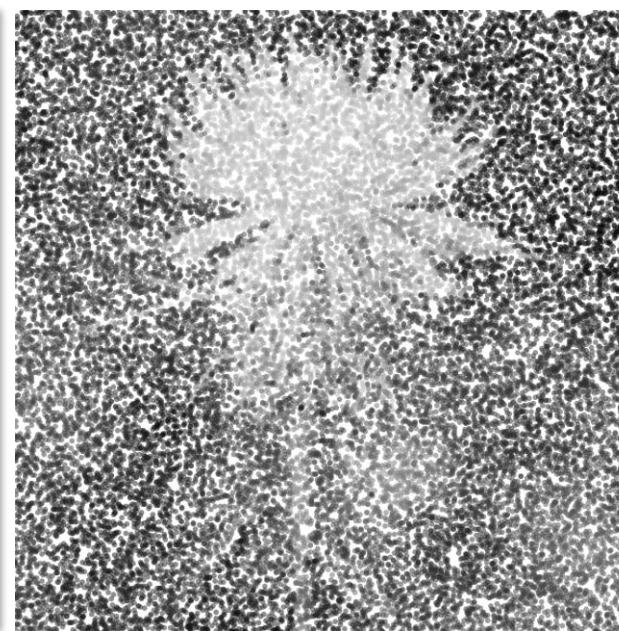
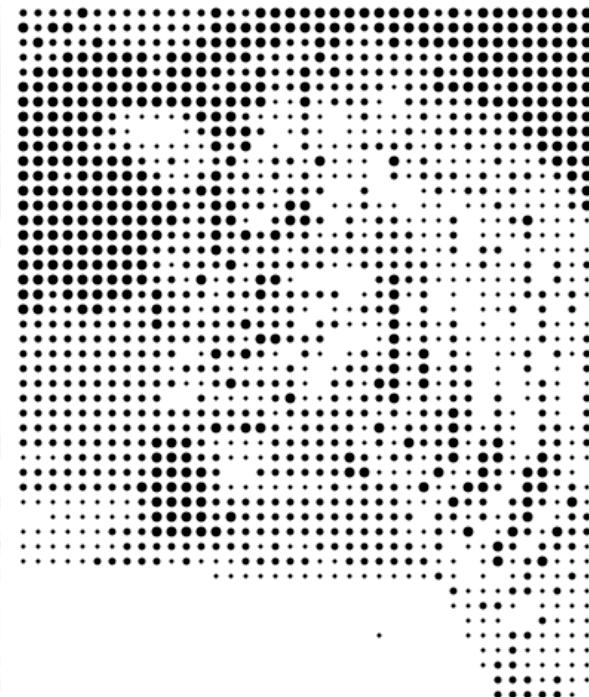
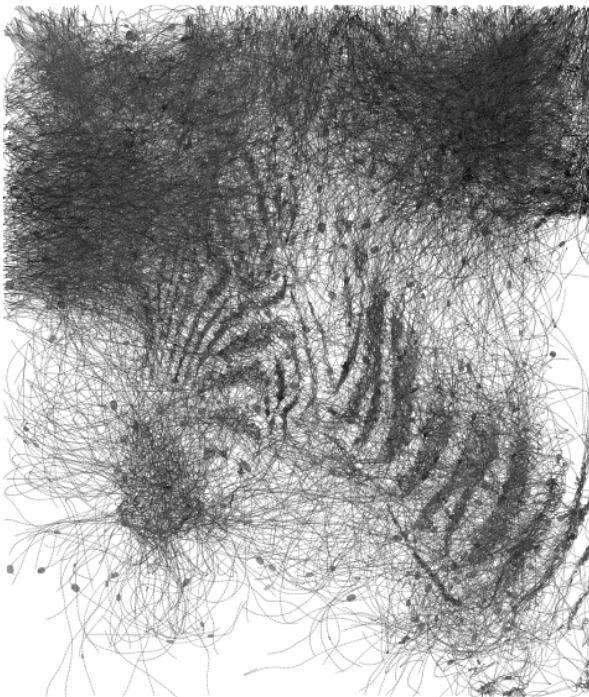
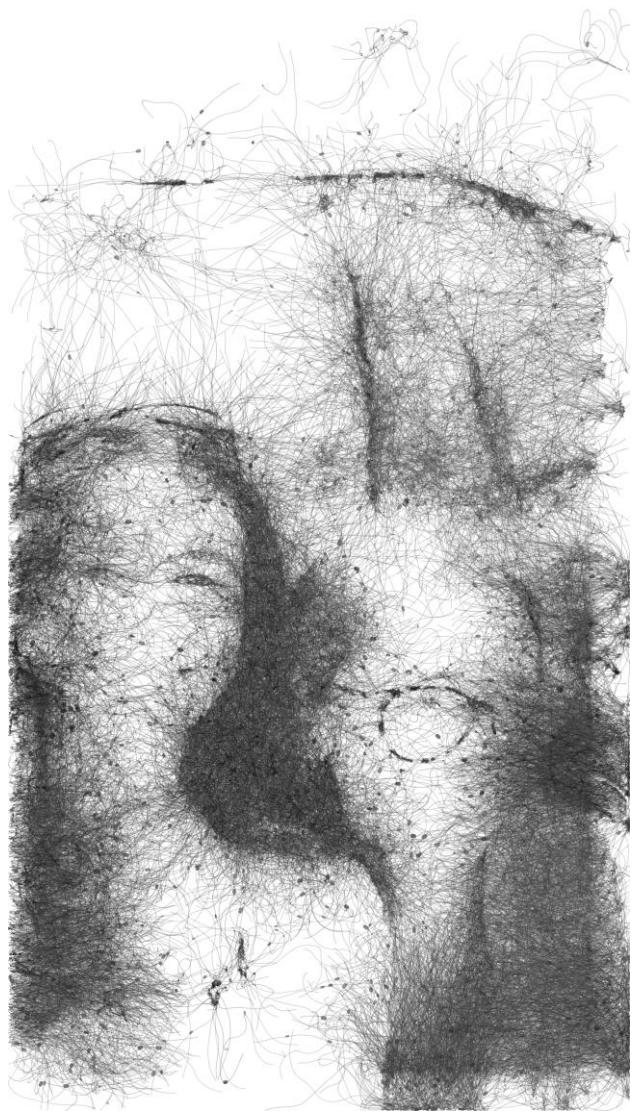


## APPLICATION Image filters

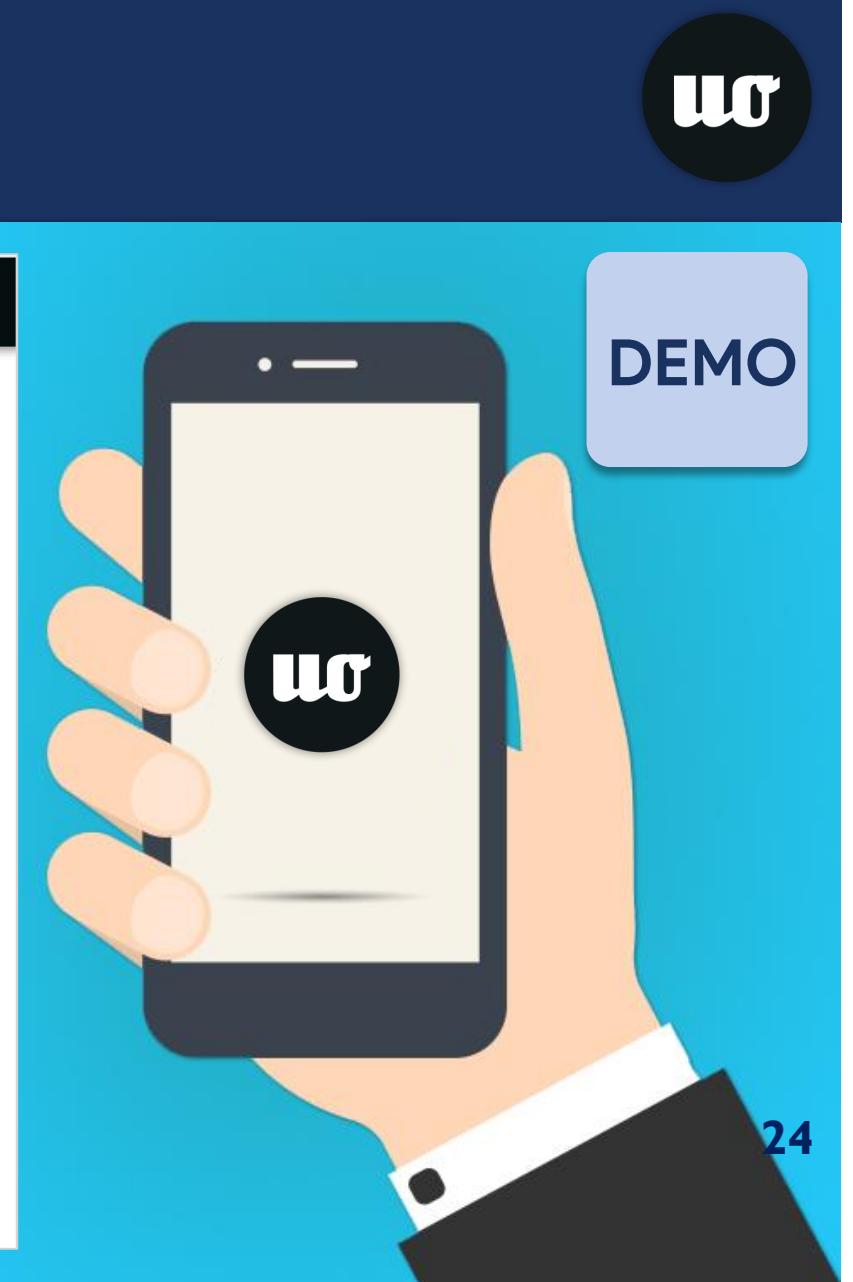
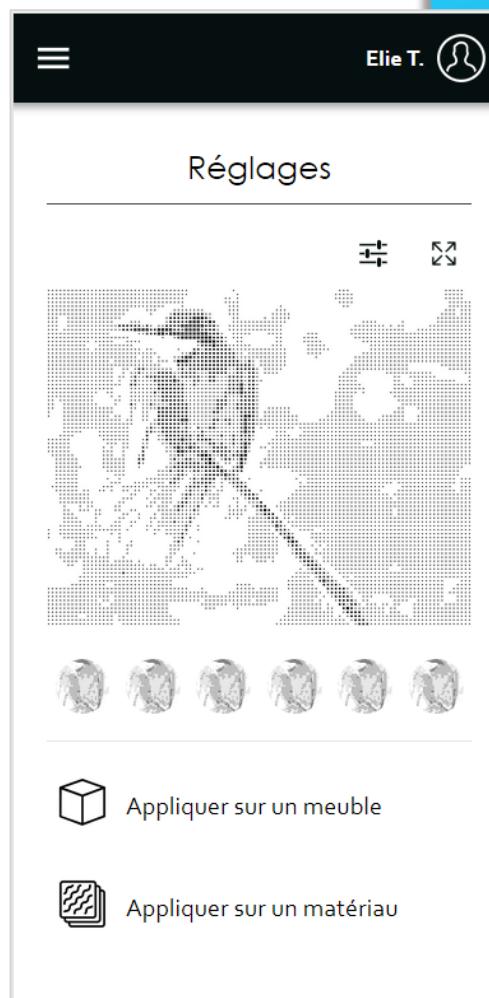
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## IV – RESULTS





# ULTRA ORDINAIRE

PROJECT PRESENTATION

[contact@ultra-ordinaire.com](mailto:contact@ultra-ordinaire.com)

THE END

