



ULTRA ORDINAIRE

PROJECT PRESENTATION

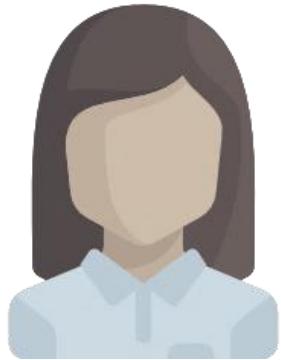
Team members:

Guangjie Zhang
Jonathan Malique
Sophie Rougeaux
Agathe Limouzy
Elie Taillardat

Tutor: Jérémie Grisolia



TEAM MEMBERS



Nathalie BRUYÈRE



Elie TAILLARDAT



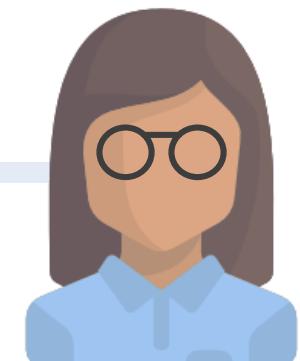
Sophie ROUGEAUD



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

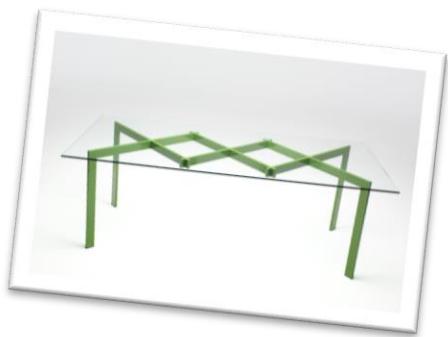
Goal : to contribute to a society
of sharing of knowledge

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?



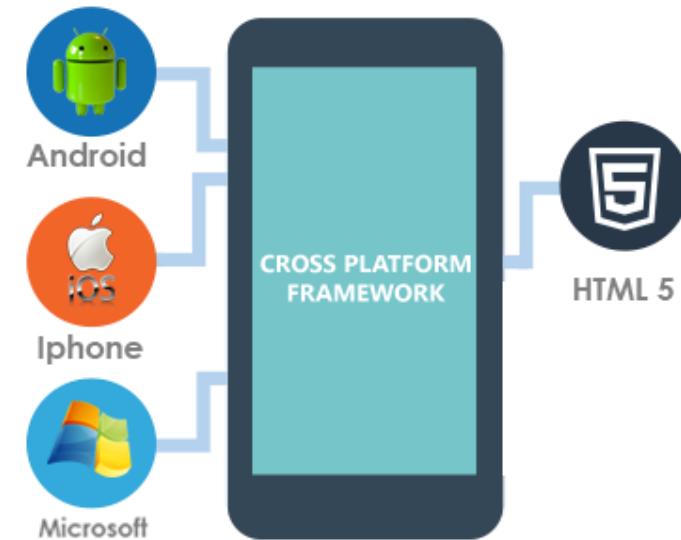


III – METHODS

1

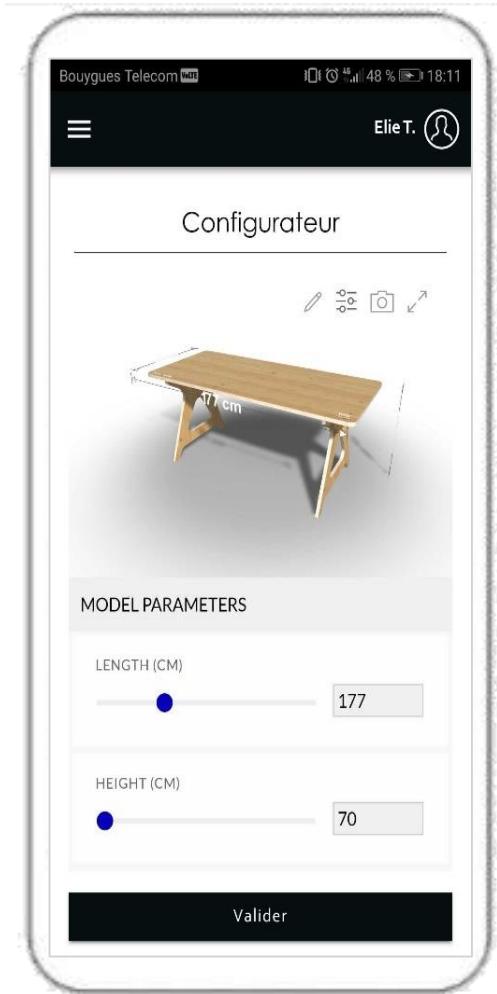
DESK PERSONALIZATION

- 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

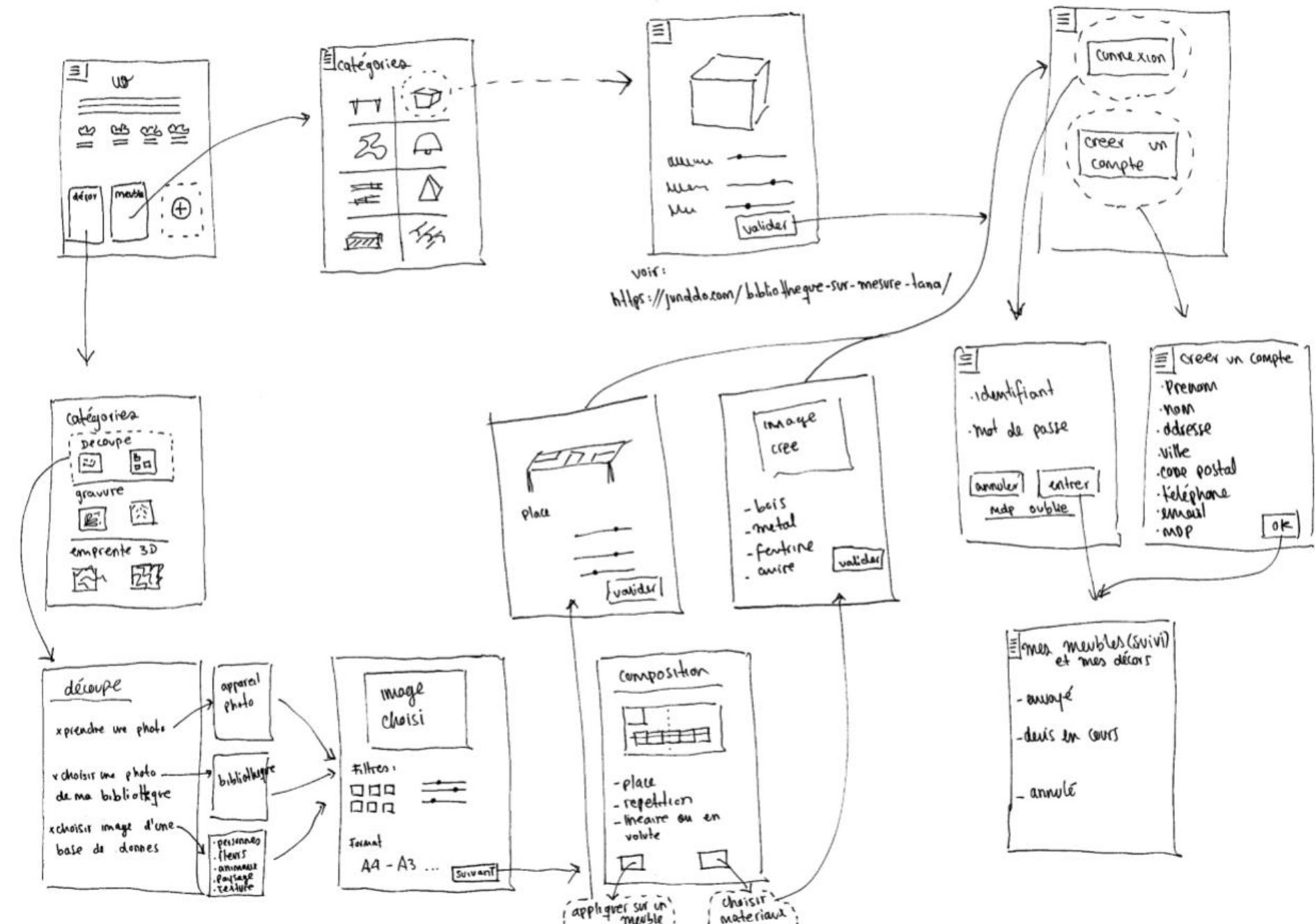


android



Website







 Appliquer sur un meuble

 Appliquer sur un matériau



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

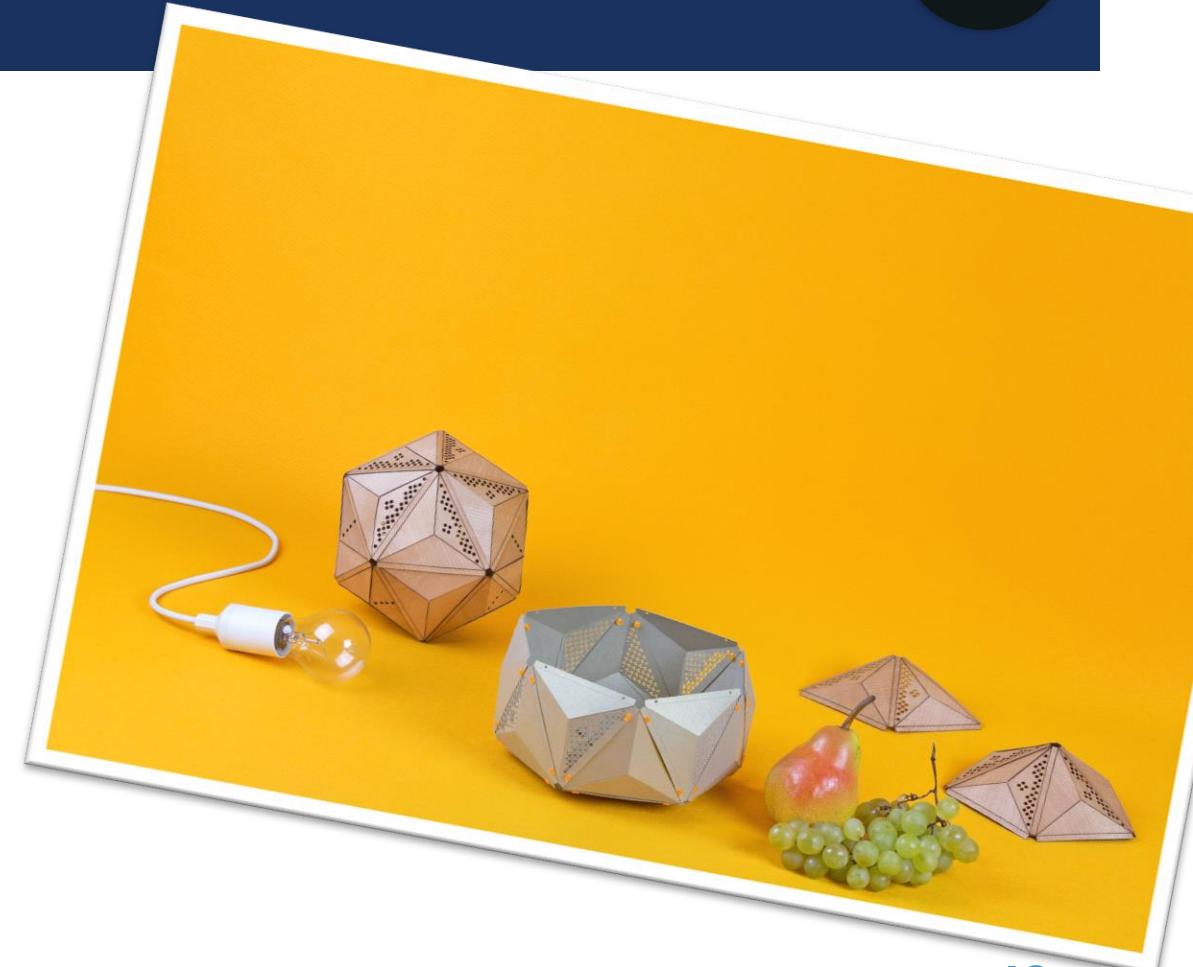


III – METHODS

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

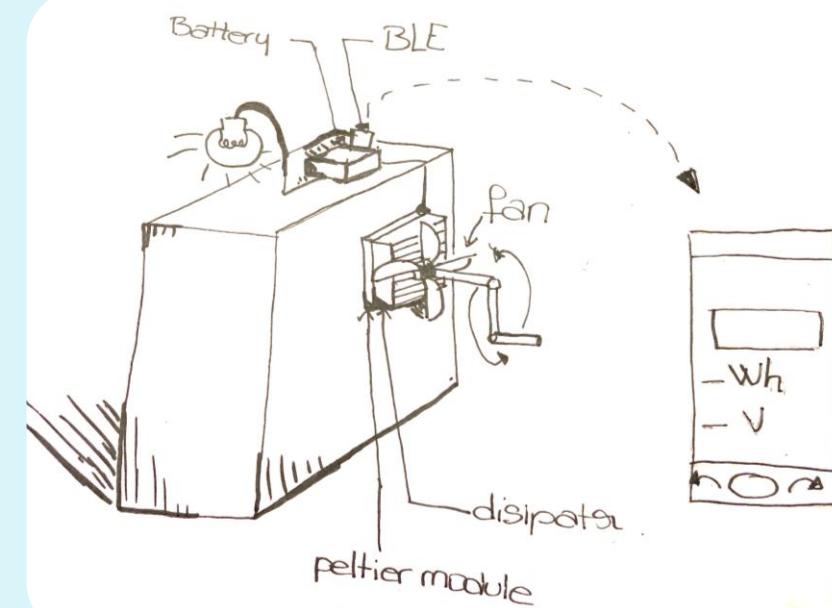
System config

State-of-the-art energy sources:

- Magnetic perpetual motion
- Thermoelectric
- Solar panels
- Chemical

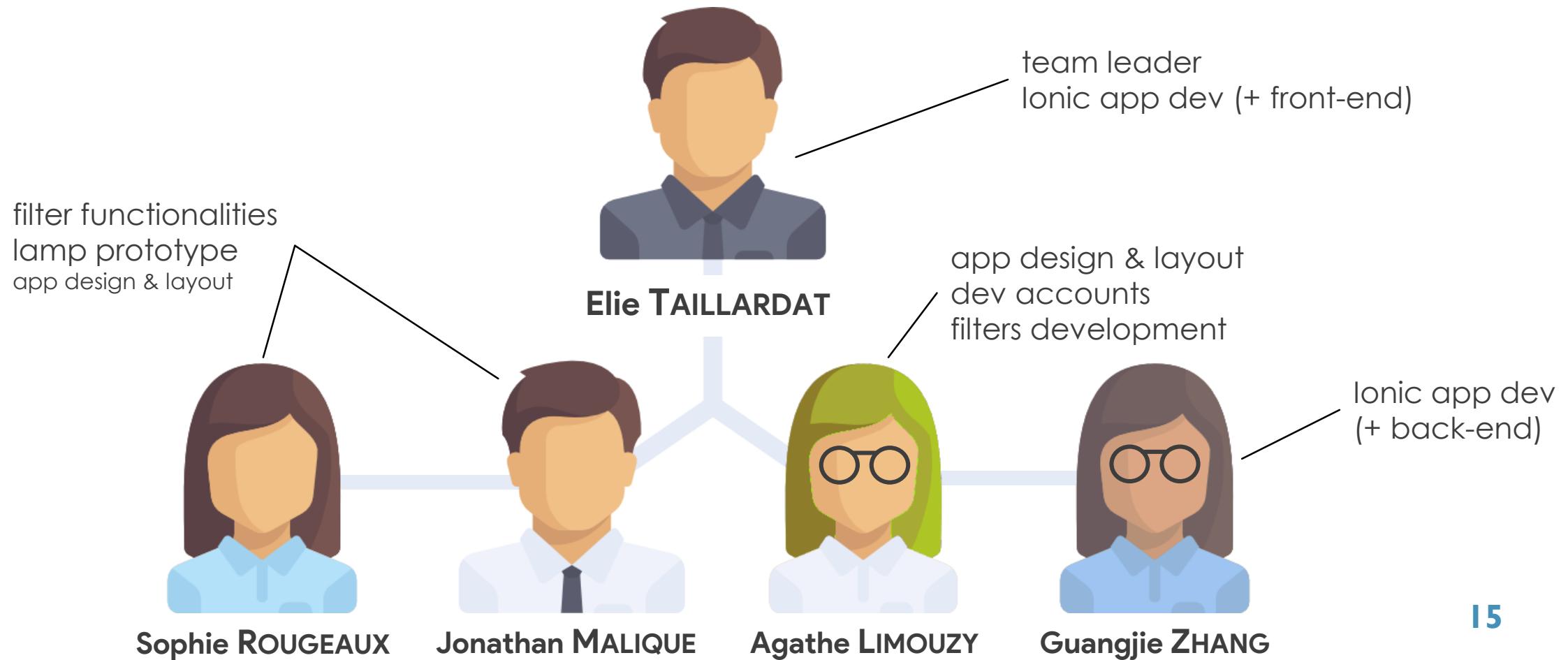
Final Idea:

Peltier Module for heat harvesting
BLE for low-power IoT





TASKS REPARTITION



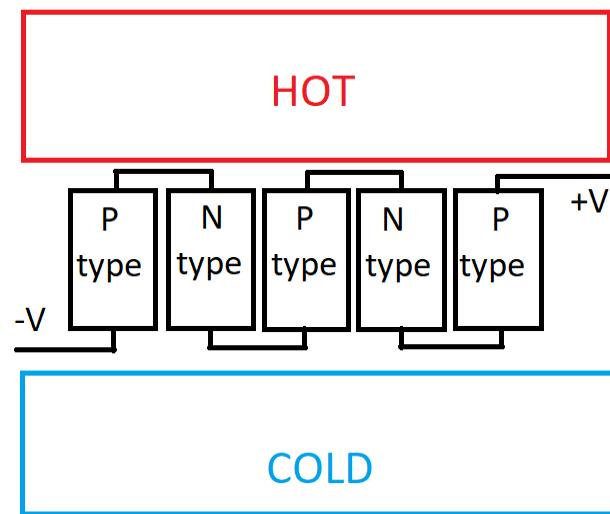


IV – RESULTS

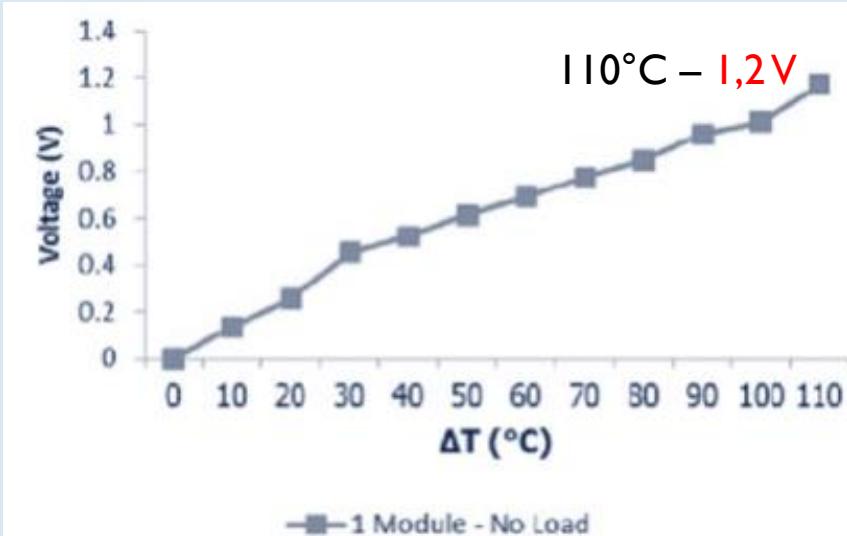
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SELF-POWERED LAMP

Peltier Module Principle



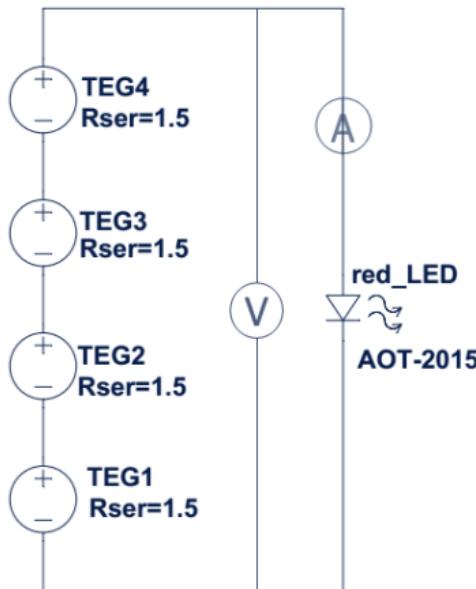
One Peltier Module
not enough



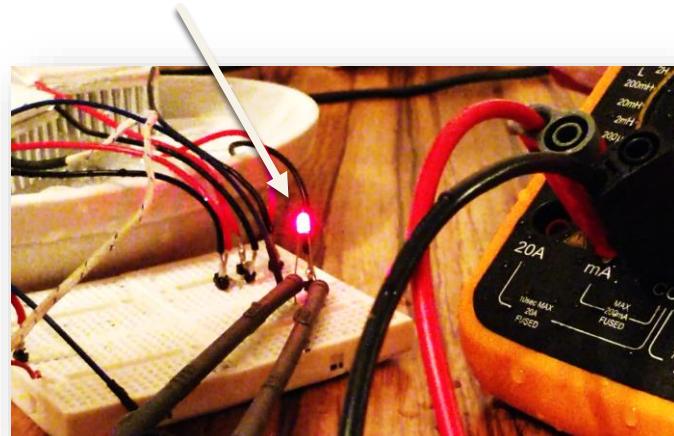
IV – RESULTS

2

SELF-POWERED LAMP



Four Peltier Modules
with a red LED load: OK



ΔT	30°C	40°C
Voltage	1,6 V	1,8 V
Current	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

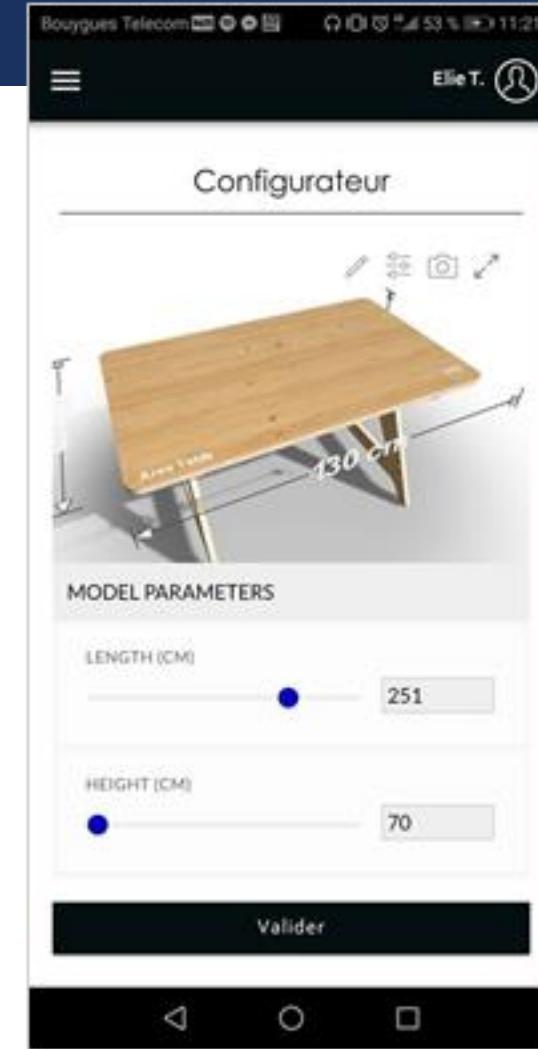


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APPLICATION



- 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



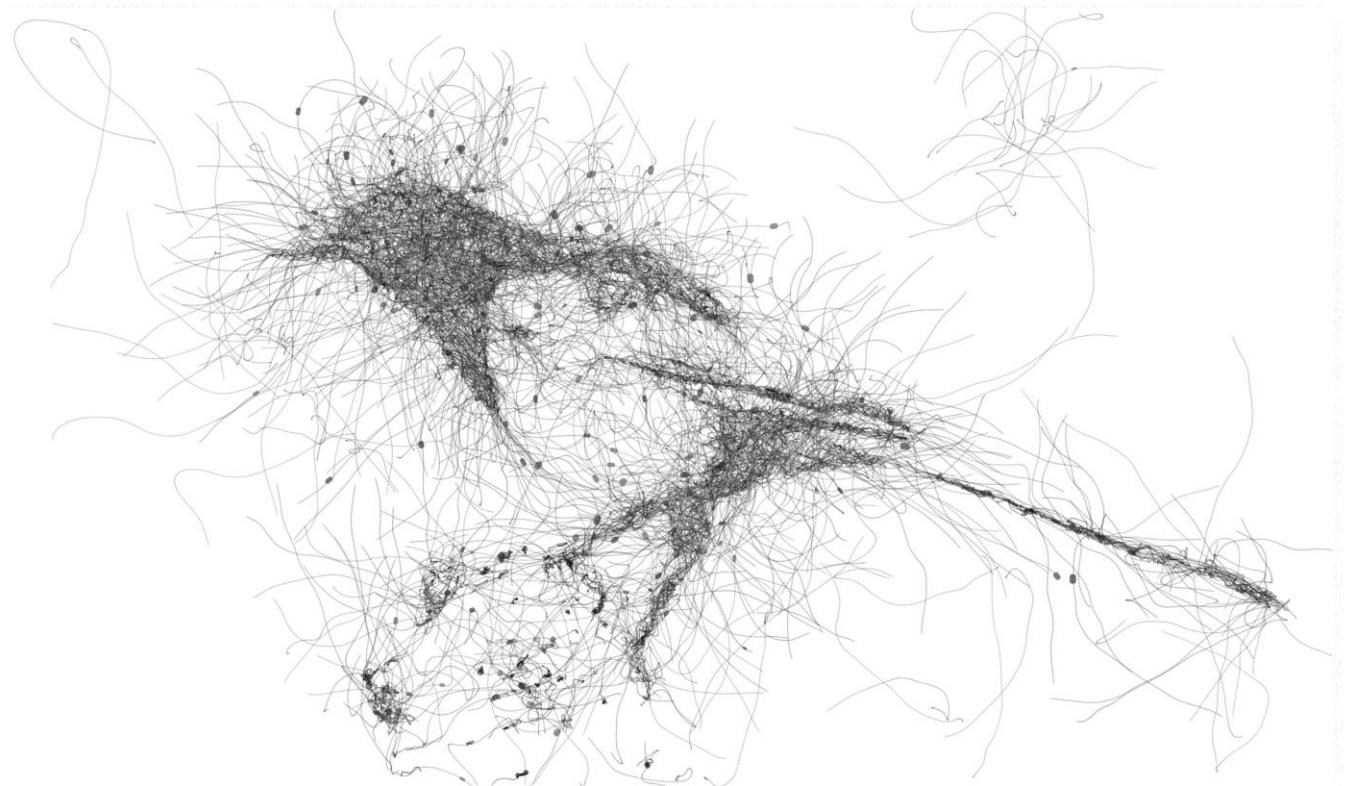
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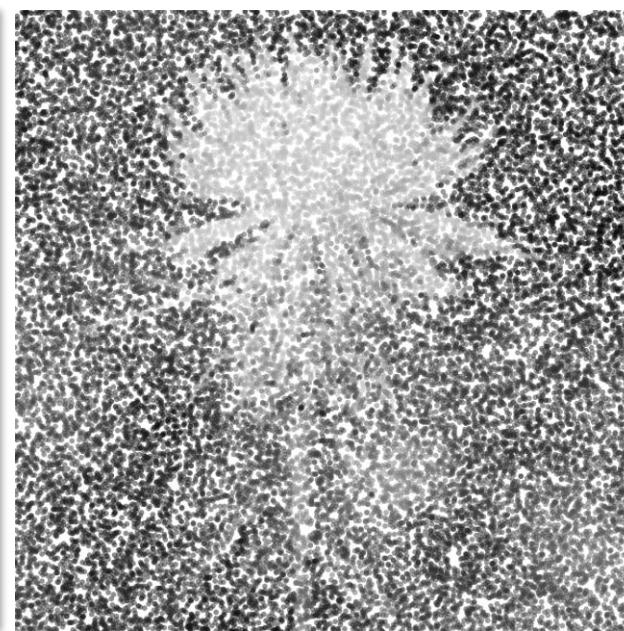
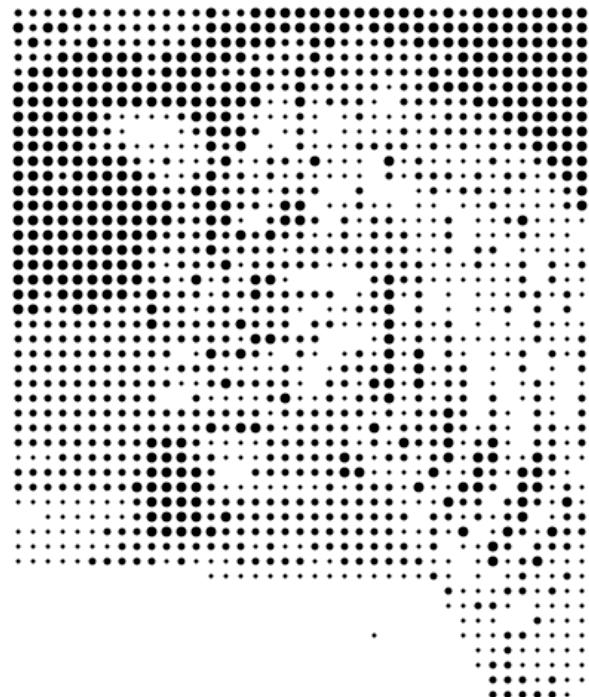
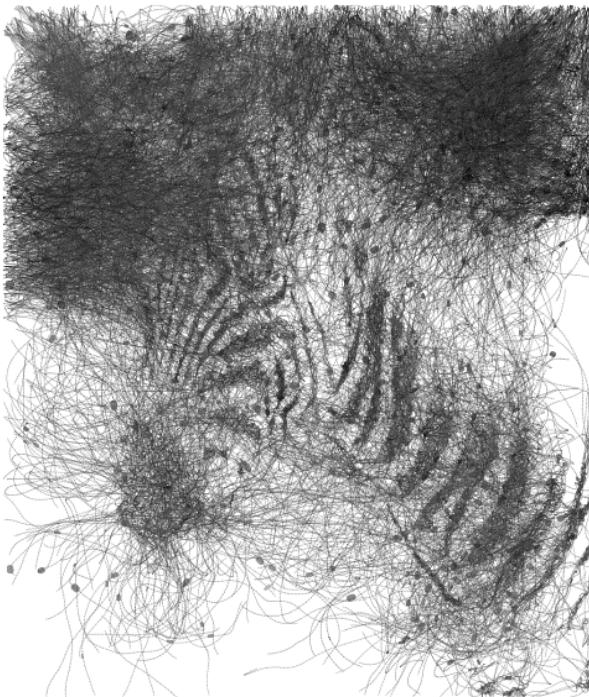
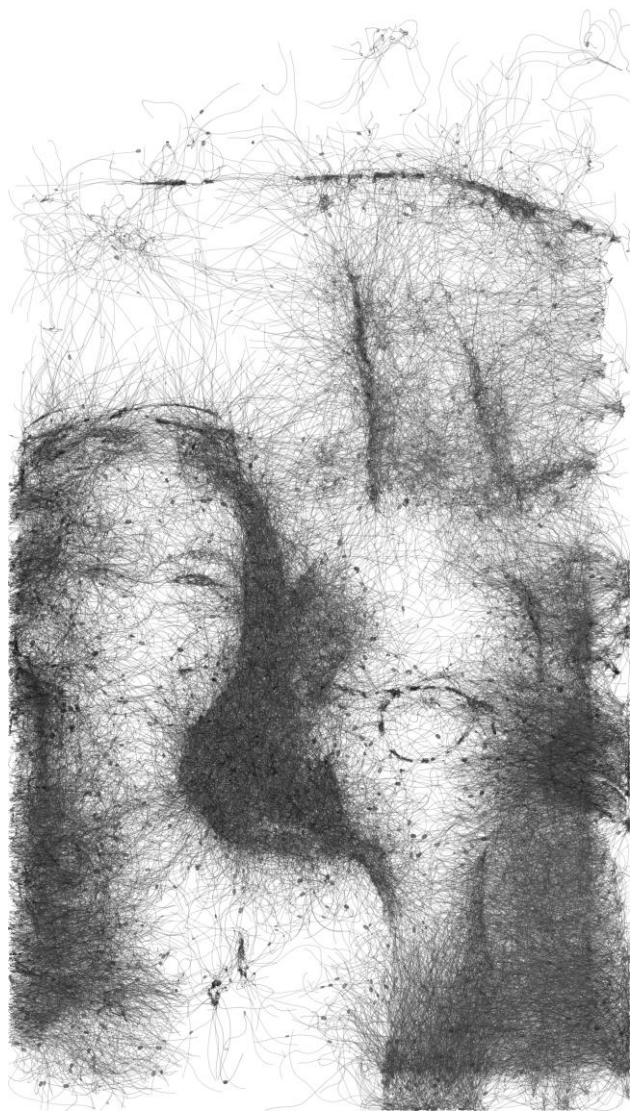


APPLICATION Image filters

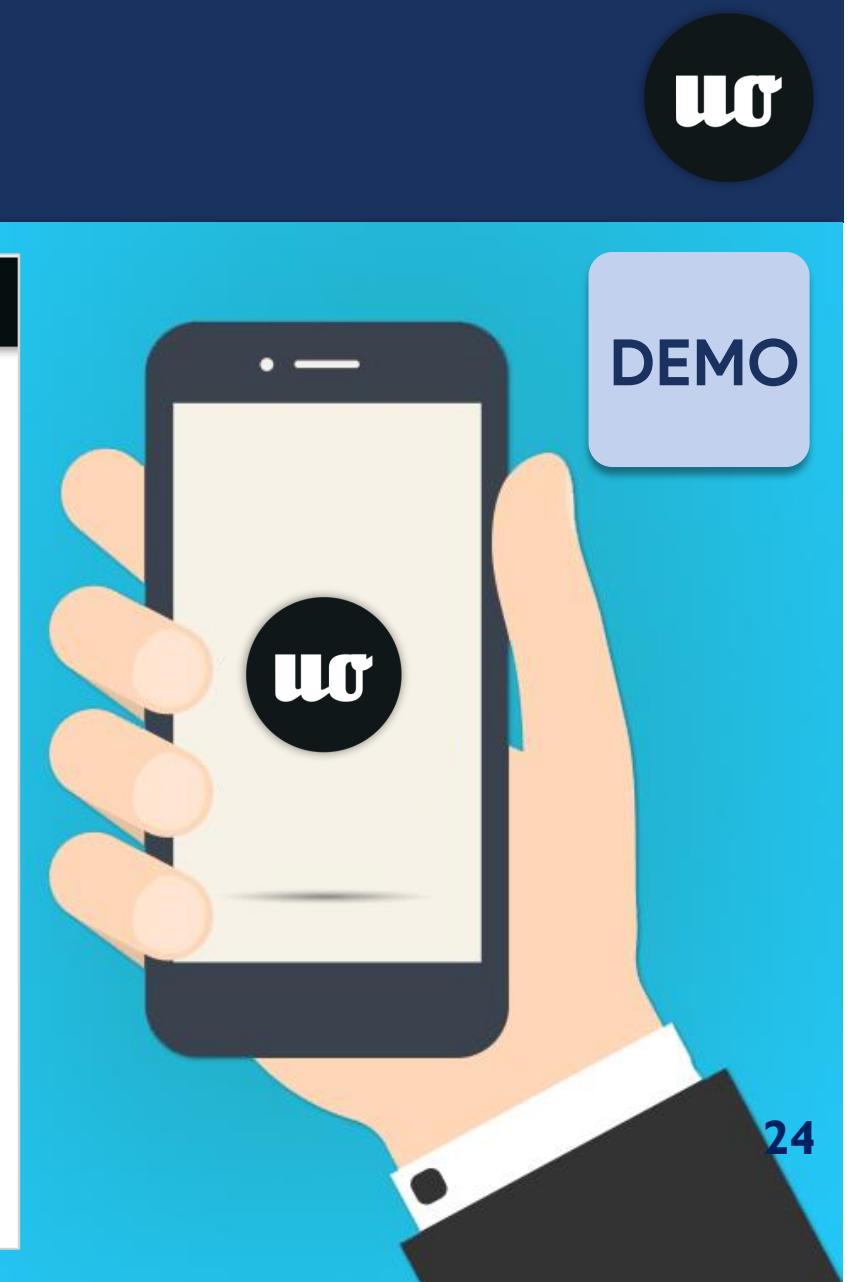
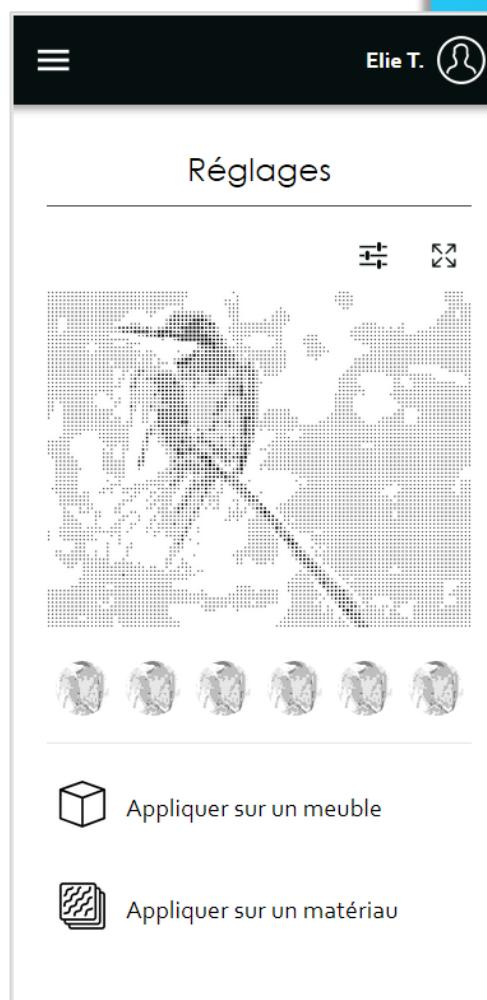
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IV – RESULTS





ULTRA ORDINAIRE

PROJECT PRESENTATION

contact@ultra-ordinaire.com

THE END

