

## Start here

Contribute by adding  
private notes, comments,  
URLs or any content in  
the areas below.

Add comments not  
related to those areas.

Learn more.

**What?**  
The Universal Registry of Things will be a trusted source of information about how to repair, customize and re-purpose virtually any kind of good or material. Is this a relevant idea?



### Comment on:

- What
- Why
- Who
- How

**Why?**  
The main motivation to create a Universal Registry of Things is to offer an easy way for interested parties to assess the feasibility of repairing, customizing or re-purposing objects. It answers to the fact that material resources are often wasted due to the lack of information about how they can be repaired, customized or reused by individuals and organizations. What do you think about that?



### Who?

Potential users of the Universal Registry of Things may be:  
• individuals who have materials at their household or neighborhood;  
• communities of repair, upcycling and redesigners;  
• repair professionals;  
• repair workshops and online marketplaces;  
• manufacturers;  
• waste management department at local authorities / municipalities;  
• regional / national zero waste initiatives.  
Are we missing anyone?



### How?

In order to build the Universal Registry of Things, some technical and organizational challenges must be addressed:  
• How to integrate existing but sparse databases?  
• What kinds of conflicts of interest may arise? How to handle them?  
• What is the best timeline for data?  
• What are the possible governance models for the URT?  
• What are the technical specifications, tools, languages and standards required for the implementation?  
Please add ideas or references to help face such challenges.



Use this space for other comments not related to  
any area above.



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## Start here

E-I is technology (hardware + software) to increase the ability to reuse products and materials.

It allows different types of users to access information in the Universal Registry of Things.

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### See ongoing

A GitHub user profile card for the organization "reuse-city/lab". It shows 1 star and 0 forks. The URL "github.com/reuse-city/lab" is also present.

Expected behaviour:

- Put an object in the inbox. The proximity sensor turns the screen on when the screen is shown. Buttons to start & stop.
  - Button is clicker camera is turned on and shows an image of the screen. Overlay message "scanning for object" (or "object" or "camera")
  - Once an object is recognized (for purposing purposes, via NFC), show message on screen (optionally, sound a notification).

**A. Can I know:** object found; Overlay message: "Object found on database"; Buttons on screen

**B. Can I know:** object found on database with description of object (titles, images, text, other info)

**C. Can I know:** object found on database with information about repair, upcycling, re-circulation, second hand market value

**D. Can I know:** object found on database not yet on database? Button says "Add this to the registry nregistry thing"; Click -> page with form to add object to database. Ability to take photo or video with E-f's camera.

Any other steps missing? Comments about any of them?



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### E-ii on different scales

- Smartphone app: point to object, identify, access information
  - Workbench machine (being prototyped) for repair shops, makerspaces ([transformation labs](#)) and community repair initiatives
  - Kiosk / city scale

*What are the advantages and constraints of each scale? How do they compare to other tools and equipment (real and fictional)?*



related to

User profile

- Citizen / Household with excess materials or objects in need of repair
  - Citizen / Household willing to acquire goods and materials
  - Community initiative (repair / upcycling)
  - Artist / crafts person looking for materials
  - Organisations in need of affordable goods (nonprofit schools, community centres, businesses)
  - Second hand shop / marketplace
  - Professional repairpeople
  - Local Authority / Municipality  
Who assesses minimise?

*What do you know about each of these user profiles?*



④

1

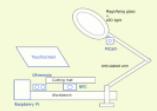
- Articulated arms
  - NFC sensor + antenna
  - Microphone
  - Recognition by saving a local website
  - NFC tags are added to pre-selected products.

**IV. Application**

  - Articulated arm
  - Handheld by a camera and screen
  - Computer vision software to recognize multiple objects (different colors, shapes)
  - Can be used for user participation!

**V. Conclusion**

  - Articulated arm
  - Handheld by camera, screen, microphone and speaker
  - Recognition of products via the camera and voice commands / feedback



## Start here

Public infrastructure (facilities) allowing citizens to repair, upgrade and re-purpose goods and materials. Design for reuse education and research, experimentation. Work in tandem with the reuse-city-lab.

Contribute by adding  
pin-up notes, comments,  
links or drawings in  
the areas below:

Add comments not  
related to these areas:

See ongoing  
documentation:



### Identity

- What is a transformation lab?
- How does it relate to other kinds of organizations in cities and regions?



### Generators

- Policy for acceptance of materials
- Associate / open to public?
- Funding: local authority / nonprofit / social enterprise / individual / private sector (or extended producer responsibility?)



Use this space for other comments not related to  
any area above.

### Equipment

What are we missing?



#### Basic

- Workbench
- Tools
- Battery powered Drill / Screwdriver
- Circular saw
- Rotary tool
- Planer
- Power supply
- Magnifier
- Adjustable desk lamp
- Multimeter
- Precision screwdriver set
- Storage / Organizers / Drawers
- Cutting mat
- Box cutter

- Sensors (DIN, VGA, composite video)
- Splicing tools
- Cable tester

#### Advanced

- 3-D
- 3-D printer
- 3-D scanner
- Laser cutter

### Space

- Sorting
- Storage
- Cleaning
- Collective space
- Individual workspace

