

## **TRIZ Challenger: how to use it?**

It will be assumed you already have:

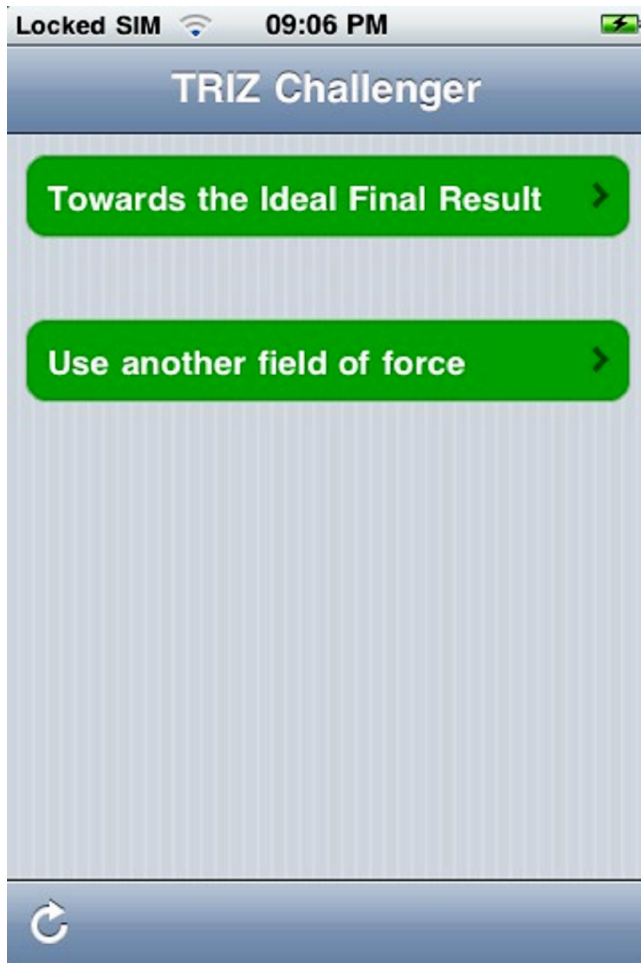
- a basic knowledge of TRIZ
- a well formulated problem

In this short guide, you will find some explanations for your help:

1. Starting page
2. Towards the Ideal Final Result
3. Use another field of force
4. Parameter to be improved
5. Worsening parameter
6. Selected inventive principles
7. List of solutions

## 1. Starting page

The first page of the application looks as follows:



You may start with one or the other path. However, it is strongly recommended to start with the first one: "Towards the ideal final result".

*Note: the arrow at the bottom of this page can be used to reinitialise the list of the selected heuristics at the end of the algorithm.*

## 2. Towards the Ideal Final Result

In a first step, TRIZ Challenger helps to identify simple and elegant solutions before looking for other technologies.

You will review all related inventive principles and sub-categories. Each time one of them seems relevant to you, select it.

You may also easily unselect an item.

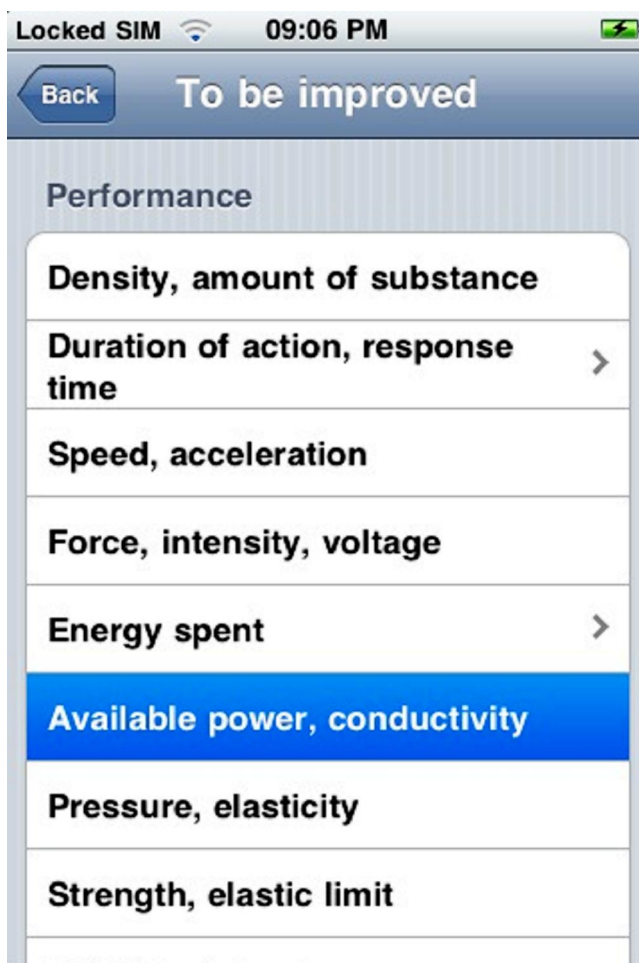
### 3. Use another field of force

This tool allows then to easily describing a technical contradiction. This is a basic TRIZ concept. It means you will first have to select the parameter ó the useful function - you would like to improve or, in reverse, the undesirable effect you would like to eliminate. You will then have to select a worsening parameter ó the undesirable effect produced as you like to improve the other parameter - or the lower performing useful function as you want to eliminate an undesirable effect.

Once the right parameters have been selected, lists of technical solutions challenge your creative thinking.

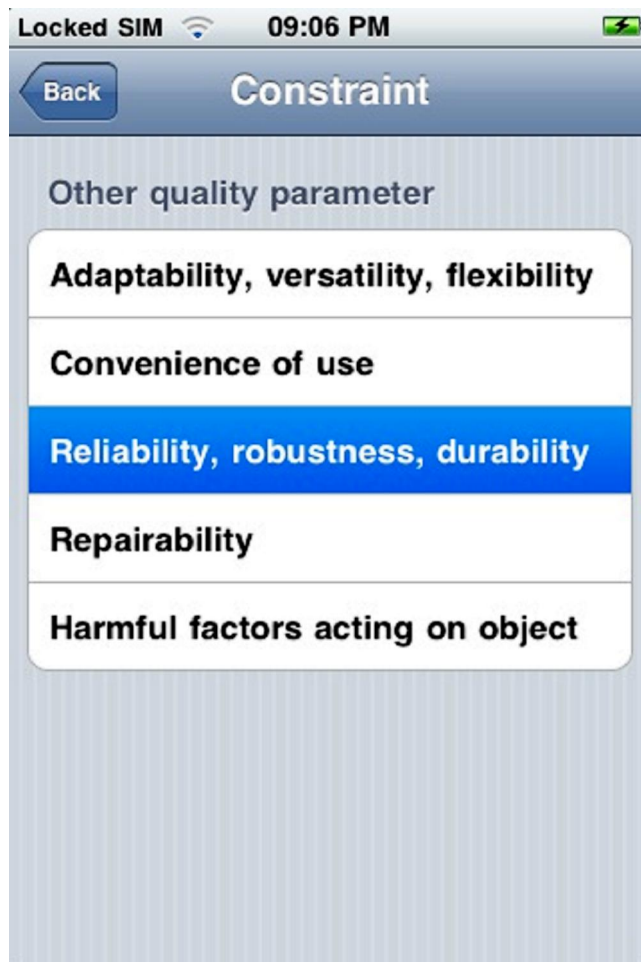
### 4. Parameter to be improved

The parameters, which help to describe a technical system, are listed in four categories: physical dimension, performance, quality and production. The picture below shows the list of the performance parameters. It is assumed here that we want to improve the available powerí



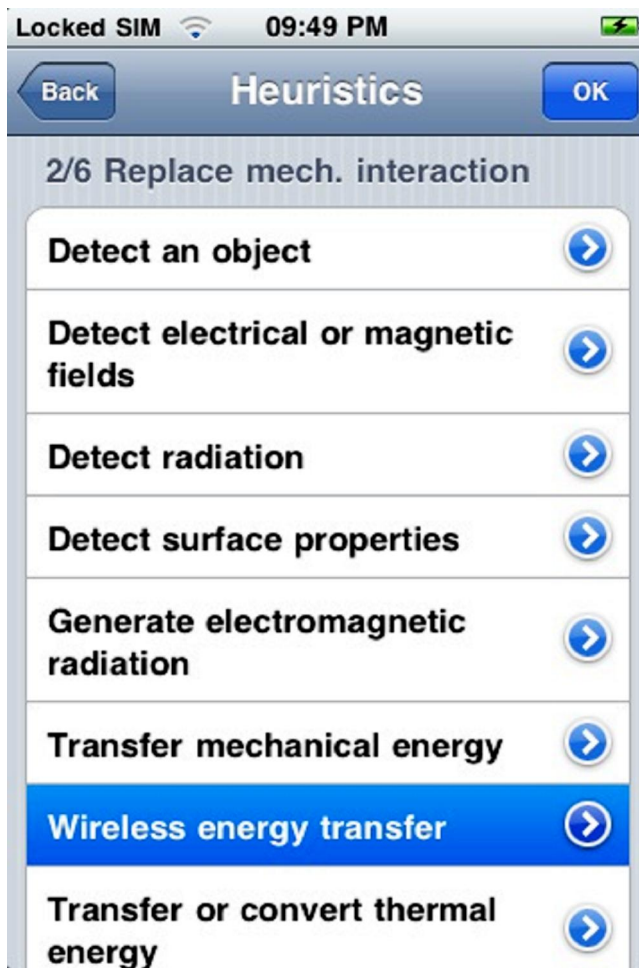
## 5. Worsening parameter (or constraint)

The same list of parameters will be checked to select the worsening one (reduced useful function or increased undesirable effect).



## 6. Selected inventive principles

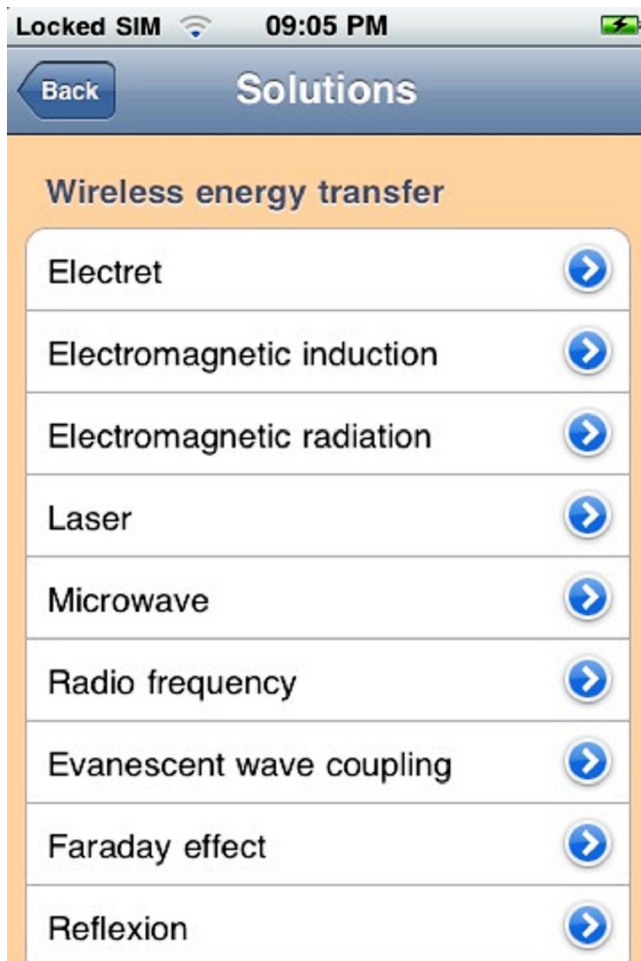
For each conflicting pair of parameters, there is a specific list of generic solutions named inventive principles (or heuristics). You can see below the designation of the second one of Replace mechanical interaction - in a list of six. And because the inventive principles are sometimes not very easy to understand, subcategories were added to facilitate the idea generation phase. Once again, you will have to review all items and select the most appropriate one.



## 7. List of solutions

Linked to a subcategory of each inventive principle ó in this case ÷wireless energy transfer÷ ó you will find a list of technical solutions. There is no selection to be done here, but you may be interested to know more about the proposed solution. If yes, you can access to pages of an online encyclopaedia (select the blue knob).

*Note: when you check the online encyclopaedia, your provider may charge the connexion!  
Use preferably a wifi access point!*



Once checked, you can go back to the selected inventive principle (with the ÷back÷ button). You will then go to another subcategory or continue with the next inventive principle.

After checking all the inventive principles, you will automatically come back to the starting page, all selected generic solutions listed in addition.

You may be interested now to come back to the ÷wireless mouse problem÷. If yes, follow the screenshots in this guide step by step.

If you need further guidance or had a question, fell free to contact me via my contact page.