## Introduction

Having the proper setup is like having the right guide who shows you the right direction. It helps you get to your right target easier and quicker. The critical setup categories are:

1. Having the right mentality
2. Having the right resource
3. Having the right technique

People with the right mindset will eventually find their way to the solution.

After that, they learn the proper problem-solving technique that will let the person find the solution even faster.

## Mental Setup: Build your positivity

**Firstly,** You need to truly believe the problem itself is worth solving and that all your effort to solve the problem are also meaningful on their own. Even if sometimes you achieve no actual result, the attempt is still worth it.

**Secondly,**you need to deeply believe that the most optimum solution exists. You are trying to find it and engineer something close to the most optimum solution. Obviously, if you don't truly believe in a realistic solution, there will be no motivation to seek it.

**Let's take Elon Musk's example:** Elon believes interplanetary expansion is an essential problem for humankind because the resource on earth will be depleted at some point. In addition, he thinks that the problem is that current space travel is too expensive. To solve this problem, he profoundly believes that reusable spaceships could lower the cost of space travel by a large margin. Hence he builds SpaceX to potentially solve a crucial mankind problem. Elon also said that SpaceX had only a [10% chance](https://www.cnbc.com/2021/11/30/elon-musk-warning-not-first-time-spacex-has-risked-bankruptcy.html) of survival, which means he thinks the attempt with a low success chance is still worth it. All in all, Elon has a very positive attitude towards the attempt. Even after the spaceship fails, he just [jokes about it](https://www.entrepreneur.com/living/if-elon-musk-can-have-a-sense-of-humor-about-failure-so/300362) and plans the next attempts.

Problems are complex by definition. It will only get solved by people who sincerely believe in a solution in the first place. Having the right vision will unconsciously lead you to achieve more.

If these two conditions are not met, then you need to ask yourself why are you even trying to solve a problem in the first place? Is it because your boss wants you to do it? Do you think it is a good problem out of all problems you are facing right now? Is it worth your time and energy? Will your reward be worth it?

## Mental setup: Open your mind

Lose all your biases and disregard your previous experience. Be open to perceiving new perspectives. Open yourself to not miss any chance of a potential solution, even if the solution might sound silly, bizarre, or impossible. Counter your old intuition and free up your mind.

**Here's another Elon Musk example:** He is an authentic promoter of the [first principle](https://president.ac.id/p/175-feature/detail/1210-this-is-elon-musk-framework-first-principle-thinki#:~:text=He%20says%20that%20he%20practices,ancient%20philosophy%20that%20he%20applies.). Instead of relying on past experience, he always asks about the causation of a problem first. By doing so, he created many innovations that nobody would think of. Tesla is a company that has [almost no marketing](https://electrek.co/2022/03/24/tesla-spends-most-rd-least-advertising-car-sold/#:~:text=Additionally%2C%20Tesla's%20entire%20R%26D%20spent,organic%20growth%20and%20some%20marketing.) cost because marketing Tesla is so ahead of the technology game that everybody knows Tesla. As a result, marketing becomes obsolete. Do something because you have to do it, not because everybody else is doing it.

Here are some techniques to free up your mind:

* Consider the problem from different angles (user, investor, programmer etc.)
* Use brainstorming to write down all possible thoughts (mind map, mind tree)
* Ask open-ended questions to gain more insight about the problem (Why questions)
* Talk to people who hold an opposite view of your idea. (360-degree view)
* Take a step back and view it from the bird's perspective. (simplicity view)
* Find the most significant variable of the problem. (significant impact vs. small impact)

## Resource Setup: Leverage your resource

Use all resources that you can find to overcome a complex challenge.

* Know your problem and everything around it. Do enough research to understand all previous attempts at the problem and related problems.
* Know the solutions people have provided. Why did they fail? What was the key?
* Have a team of specialists: Hard problems usually need to be solved by a group. Do you know enough specialists in this area?
* Have the money. Does your current resource allow you to solve a big problem? Or will your cash be burned out before you arrive at the destination?

## Summary

Solving a challenging problem is like preparing for a battle. You need to have the right mentality, bring the right gun, and use the right tactic to win. Most people focus on the gun and tactic but forget to bring the right mindset. Positivity always helps, especially in solving complex problems.