Solve
for Tomorrow

Click on the ⬇ next to 🖶 to download the PDF before you go any further - this will allow you to save your work.

Want to submit an entry, but not sure how to get started?

Welcome to the Solve for Tomorrow Design Thinking Toolkit

This new interactive tool will walk you through the Design Thinking process step-by-step. By the end, you'll have everything you need to submit an entry to the competition.

Let's go →

Use the arrrows to navigate through the Toolkit

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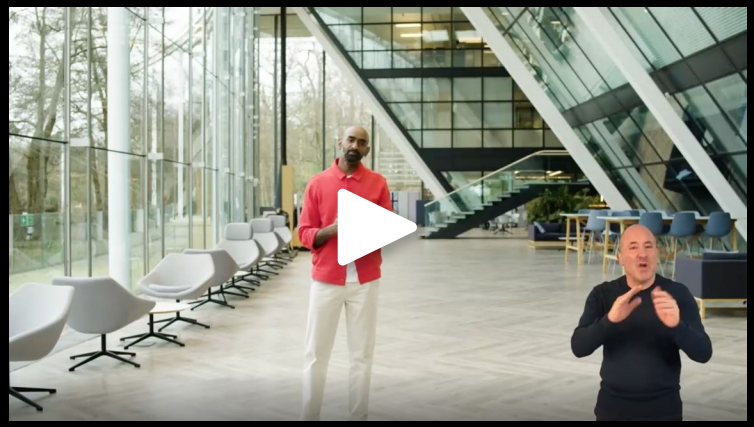
What's Solve for Tomorrow?

...a competition like no other. It's a chance for you to design the future, exploring how tech can be used to solve a problem you care about.

More info here



Got an idea? We want to hear it - big, small, or somewhere in between. It doesn't matter who you are or where you're from, use your story to lead the way.

Why take part?

You dream it, we'll help you build it.

We're giving you the tools to solve a problem that matters to you. Start by coming up with an idea - we'll help you do the rest.

Prizes

All shortlisted

- Samsung tablet

Runners-up (x2)

- £1,000 cash prize
- 3 months expert mentoring
- Personalised action plan
- Industry & investor intros
- Samsung phone
- Media profiling package

Winners (x2)

- £10,000 cash prize
- 3 months expert mentoring
- Personalised action plan
- Industry & investor intros
- Samsung laptop, phone and monitor
- Media profiling package

Don't just take our word for it. Click on our past winners to hear their thoughts.

Ramneek Kaur Ahluwalia

Anjali Devadasan

Samuel Mo

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So, how should you use this resource?

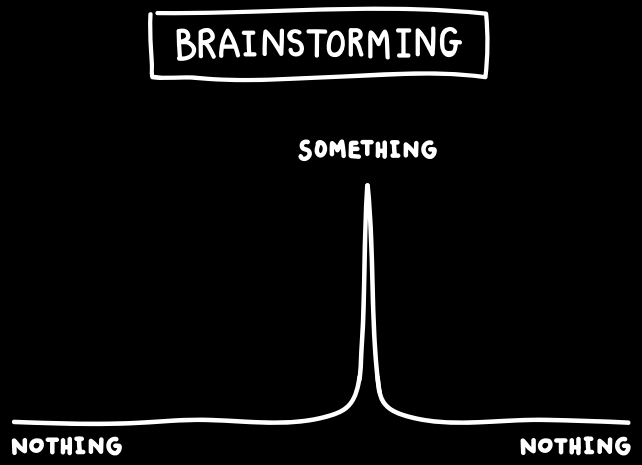
The Design Thinking Toolkit is for you if you're...

- Looking to make a difference
- Keen to come up with an idea of your own
- Not sure how to get started

Don't know where to start? No problem.

Follow the steps and you'll start to build a picture of your very own tech idea, ready to submit here.

You can complete this in as little as 45 minutes and save and return at any time. Just click 'file' at the top left of the screen, and then 'save'.



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What is Design Thinking?

And how can it help you to come up with a tech idea?

Design Thinking is a process used by designers to solve problems. Samsung created the 'Samsung Design Thinking' process to help them create products that help people in their daily lives. It's a way of making products and experiences better for customers.

Design thinking is a human-centred approach to problem solving.

Here's the steps followed in the Design Thinking process:

1. Empathise
2. Define
3. Ideate
4. Prototype
5. Test

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Meet Dami

She was runner-up in the Solve for Tomorrow Competition in 2024.

Her tech-for-good idea, **GLIMPSE**, is a pair of smart glasses powered by AI to help people with visual impairments.

We'll be showcasing her design throughout this Toolbox to:

1. Inspire you
2. Show you how to fill out each section

So, keep an eye out for Dami's work as you go - it's your blueprint for success!

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Step 1: Empathise

Who needs your help, and why?

Watch this video first:

Click on each topic for more info

1. What's something you'd change if you could? Take inspiration from your own experiences.

Education	Sustainability	Housing	Healthcare
Inequality	Loneliness	Nutrition	Accessibility

2. Who's affected by this problem? Make a list of different groups:

Now choose one group from your list. Click on the titles for examples

Goals	Pains
What the group wants to achieve.	What their frustrations or challenges are.
Behaviours	Needs
How the pains force the group to act.	What the group needs from a solution.

3. **Focus question:** Narrow it down. Describe exactly who you are solving for.

Tip: Statistics help build a picture of your user. For example, 39% of visually impaired people in the UK experience anxiety, often due to feeling unsafe in public spaces.

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Click for an example

Step 2: Define

Out of every problem, there's an opportunity... let's find it!

Insight → Opportunity

Click on these to show how problems can become opportunities

1.

Needs	Aspiration	Barriers	Frustration	Opportunity

2.

Focus question: So, what opportunity is there for tech to solve the problem?

Tips:

- Define your user's point of view
- Say what they are trying to do
- Have 'tension' (what's stopping them?)
- Be new / a little surprising

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Looking for a tip?

Step 3: Ideate

Let's do some creative thinking to start solving the problem.

Watch this video first:

Watch me

1. Here are some ideation techniques to get you started. Remember, this is your chance to dream up something that truly makes a difference. The sky's the limit! What will YOU create?

2. How many ideas can you come up with in 5 minutes? Grab a piece of paper and write as many as you can. Here's some tech possibilities to inspire you:

Apps · AI · Gaming · Social media · Smart devices · Robotics · Wearable tech · Voice recognition

3. Take a small break, then come back with fresh eyes. Review your ideas and pick the one that best solves your user's problem.
Head here for an example, as well as tips on how to choose just one idea.

Focus question: The big moment! What is your game-changing idea?

Psst! Here's some advice.

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Watch me

Click here
for a tip!

Step 4: Prototype

Bring your idea to life. Build it, test it, and see how it stacks up.

What's a prototype?

Click on the icons to see the many ways to prototype.

1. Sketch, build or describe, it's up to you. Create a prototype and take a photo of it. If designed digitally, make sure you've saved it online so you can share the link! Need inspiration? Head here for an example.

2. **Focus questions:**

1. Is your prototype working as planned?
2. Are there any tweaks or improvements you could make?
3. And, most importantly, is it solving the problem you set out to tackle?

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Step 5: Test Optional but recommended

Test, collect feedback and upgrade your prototype. On repeat.

Testing is important. It's where you find out what works... and what doesn't.

Don't stress if it isn't perfect yet. Shortlisted entries will get the chance to refine their ideas, and we'll even help you build your own prototype.

Take a look at the Samsung testing process.

1. Write three questions you'd like to use to get feedback:

-
-
-

Click here to see some advice from Samsung's innovation team to see why testing is important

2. **Feedback you gathered:**

Improvements based on feedback:

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Step 6: Submit

Congratulations!

You've made it to this page because you've created a tech solution for something that matters - well done!

By completing the Design Thinking Toolkit, you can:

- ☐ Apply Design Thinking to a problem
- ☐ Feel inspired to become an innovator for the future
- ☐ Claim your Solve for Tomorrow certificate
- ☐ Enter the Solve for Tomorrow competition by completing the entry form on the next slide

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Step 6: Submit

Here's the questions you'll need to answer in the Entry Form

Type your answers here, and copy them to the form when you're ready.

Grab our attention in one line! Briefly, what is the tech idea and what is the problem it is trying to solve? (Check out 'Step 2: Define' for your answer to this!) **(30 words max.)**

Tell us more about what type of person your tech idea is created for... What problems do they face in their daily life? (Check out 'Step 1: Empathise' for your answer to this!) **(180 words max.)**

What is your tech idea (e.g. app, product, service) and how does it overcome a problem for your user? (Check out 'Step 3: Ideate' for your answer to this!) **(250 words max.)**

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Step 6: Submit

Go ahead and share your idea. We're all ears.

01 Open the Solve for Tomorrow Competition's Entry Form between 30 October 2024 and 12 January 2025.

02 Let us know who you are and how we can contact you.

03 Use what you've drafted in this Toolkit to complete the Entry Form's fields.

04 Add any links or documents (Google Drive, SharePoint, etc) where required in the Entry Form.

05 Click 'Submit Entry' and you're done! We'll let you know by 14 February 2025 if you've been successful.

All entrants should receive their certificate when the shortlist is announced by 14 February 2025

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"Winning Solve for Tomorrow was a life-changing experience for me. I never could have dreamed that one little idea could open so many doors. I even represented Solve for Tomorrow UK at the Paris Olympics."

Ramneek Kaur Ahluwalia, Solve for Tomorrow 2021/22 Winner

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"[We would] definitely, definitely recommend more young people enter the competition. It's not just winning the competition, but the process of participating in the programme. You can actually learn how and why they should solve for tomorrow and actually make a difference to the society we're all living in."

Anjali Devadasan, Solve for Tomorrow 2023/24 Winner (18-25)

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"The competition has been a fantastic opportunity to meet industry experts and other young innovators working on projects that can solve real social problems!"

Samuel Mo, Solve for Tomorrow 2023/24 Winner (16-18)

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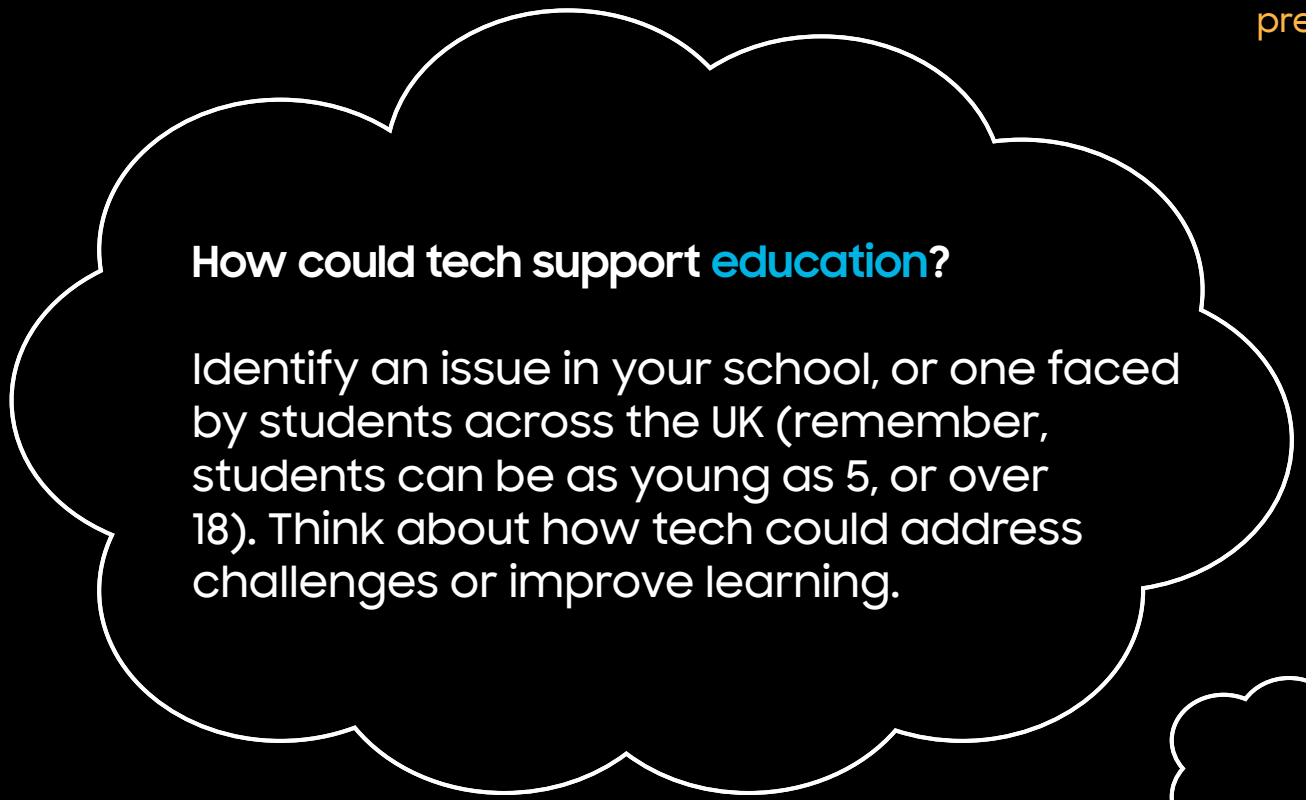

How could tech support education?

Identify an issue in your school, or one faced by students across the UK (remember, students can be as young as 5, or over 18). Think about how tech could address challenges or improve learning.

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How can tech promote sustainability?

Consider the environmental issues your community faces, such as waste, pollution, or energy consumption. Think about how technology could help reduce environmental impact, promote recycling, or encourage the use of renewable resources.

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How can tech address housing issues?

Think about the problems people face with housing, such as affordability or homelessness. Is there a way technology could be used to create more affordable, sustainable, or accessible housing solutions?

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How can tech improve healthcare?

The healthcare sector faces a list of problems including waiting times, lack of resources, or remote locations. Could tech make healthcare more accessible? Could it make it personalised?

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How can tech tackle inequality?

Differences in income, access to education, healthcare, or even opportunities based on race, gender, or location - think how tech could help close the gaps that hold people back, giving everyone a better chance.

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How can tech combat loneliness?

Around 3.3 million people in the UK often or always feel lonely. Loneliness can deeply impact those who have limited social interactions. Consider how tech might bring people together, build supportive communities, or offer resources to those in need of connection.

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How can tech improve nutrition?

Maintaining a healthy diet can be challenging. Limited access to fresh food, lack of nutritional knowledge, or finding the time to cook are common problems. Consider ways technology could support healthier eating habits.

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How can tech improve accessibility?

Identify an accessibility issue that affects people with disabilities - this could be in your school, community or across the UK. Think about how tech could remove barriers, enhance independence, or make everyday tasks easier for everyone, regardless of ability.

Dami's idea is a great example of this!

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Goals example: the goal is for visually impaired people to be able to navigate and access public spaces easily and confidently. They should be supported to move around independently, without needing to rely on others.

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Pains example: Pains for those with visual impairments could be:

- Difficulty navigating public spaces
- Dependence on others
- Increased risk of accidents or getting lost
- Feeling isolated

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Behaviours example: the pains could cause those with visual impairments to:

- Avoid unfamiliar places
- Rely heavily on assistance
- Plan meticulously
- Move cautiously
- Experience frustration or anxiety

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Needs example: visually impaired people need tech that can help them move around safely and independently. They need tools that give real-time info, help them avoid obstacles, and guide them in new places. This is a chance to create something that makes life easier and boosts their confidence to explore on their own.

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Needs example: visually impaired people want to go travelling and explore new places independently, without feeling anxious and afraid.

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Aspiration example: to develop a piece of tech that provides real-time navigation and obstacle detection, empowering visually impaired people to move around confidently on their own.

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Barriers example: accessible technology that helps visually impaired individuals navigate public spaces.

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Frustration example: to empower visually impaired individuals to confidently explore and navigate the world on their own, enhancing their independence and quality of life.

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Opportunity example: not having enough helpful tools, like apps or devices, that can guide visually impaired people in real-time, and everyday obstacles that make it hard for them to navigate new spaces on their own.

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Insight example: visually impaired people often feel anxious, dependent, and limited because they can't navigate public spaces easily or safely on their own.

Opportunity example: to create tech solutions that provide real-time guidance and obstacle detection, making it easier and safer for visually impaired people to navigate independently.

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Focus questions example: visually impaired people want to explore public spaces independently and confidently, without constantly relying on others. They want to feel safe when they're travelling, just like everyone else.

However, they face barriers like unclear paths, obstacles, and a lack of real-time guidance, which makes them feel anxious, dependent, and less independent.

Perhaps there's an opportunity to use tech to provide real-time navigation and obstacle alerts for visually impaired people. This could empower visually impaired users to explore the world more freely, making independence not just a possibility but a reality.

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Tip:

Don’t worry about being perfect–right now, it’s all about throwing out as many ideas as you can.

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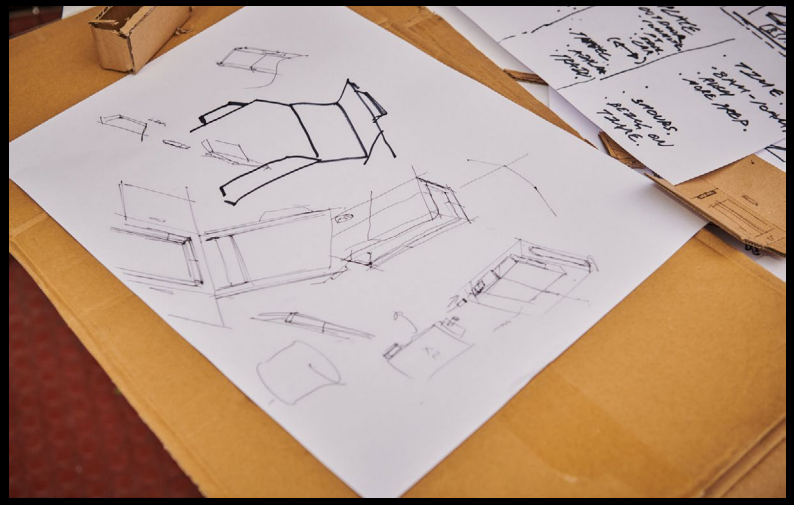

Draw sketches on paper to
quickly test ideas.

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Using basic materials like cardboard, foam, clay, and cellotape to create rough models.

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Use an app to create an animation that brings the idea to life.

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Use building blocks to
visualise concepts.

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Create a storyboard to show how a user would interact with the product or service.

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Tip:

Don’t worry about your first prototype looking beautiful - you’ll get the chance to perfect it later.

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1. What do you think this product is supposed to do?
2. Are there any features that are confusing or hard to navigate?
3. Are there any changes you'd suggest to the design?

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"If something doesn't work, feel free to scrap the idea. Don't be precious about ideas - testing is all about evolving them to fit the user's needs."

Alex Brown, Senior Innovation Manager at Samsung Design Europe

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Ideation example

Here's how ideation could look if you choose to brainstorm.

Problem:
Visually impaired people want to explore public spaces independently and confidently. They want to feel safe when they're travelling, just like everyone else.

Step 1:
Come up with as many ideas as you can.

Step 2:
Evaluate and colour code using these categories:

- Most exciting
- Most practical
- Most risky

Ideation

Mission: how might we create tech that provides real-time navigation and obstacle alerts for the visually impaired.

Displaying a spatial/ holographic map

- **Glasses**
  Uses cameras and GPS to provide real-time maps
- **Drone**
  Flies ahead of the user, mapping the area and feeding info to a wearable device
  → Feedback sent to earpiece
  Very futuristic - like a flying tech guide dog

Alerting user to obstacles

- **Vibration**
  buzz when obstacles are near
  - **Vest**
  - **Smart cane**
  - **Gloves**
  - **Belt**
  - **Shoes**
    Most simple and straightforward to execute
- **Sound beacons**
  Place a network of beacons arund popular locations that communicte with a wearble device
  Would need to get permission to place beacons in public places - complicated to set up
- **AI guide dog**
  - Robotic guide dog uses AI to navigate and provide obstacle alerts
  - Can be trained with voice commands
    - **Headset**
    - **Wireless headphones**

Projecting a path

- **Echolocation (like bats)**
  uses sound to generate a path
  - **Headband** + **Wireless headphones**
    - Emits pulses directly from user's field of view
    - Gives sound alerts when obstacles are spotted
- **Lasers**
  Draws a line on the ground in real time to create a safe route
  - Could change colour for different types of obstacles
  - **Watch**
  - **Handheld device**
  - **Glasses**
    Could project icons or warning signs for obstacles

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Ideation techniques

1. Brainstorming and brainwriting

Whether solo or in a group, brainstorming is about throwing out ideas without judgement - go for quantity, not perfection. For brainwriting, instead of talking, everyone scribbles or doodles their ideas anonymously before discussing them as a group.

2. What if...? How might we...?

Ask questions related to your topic. Like, "What if tech could make homework fun?" or "How might we use wearable tech to support mental health?" These questions can help you spark new ideas and think outside the box.

3. Making a wish

It's like daydreaming - imagine any solution you want, no limits. Anything is possible. Then, dial it down. Is there a way to make that wish come true? Dream big and turn wild ideas into realities.

4. Reverse thinking

Switch it up: instead of solving the problem, imagine how you could make it worse. Then, flip those ideas to uncover new solutions. This could help you see the problem from a fresh angle.

5. Idea remixing

Take an existing idea and explore how you could remix or tweak it. For example, if you know of an app that already exists, think about how it might work in a different context or for a different audience, like a game for a school.

6. Broadcast search

Think of asking friends, family, or even online communities for their ideas or feedback on your topic. The goal? To get fresh perspectives and ideas from all kinds of people.

Conditions for creativity

1. Take breaks

Get moving! Physical activity clears your mind, sparking fresh ideas.

2. Set a time limit

A time limit boosts urgency, driving quick, creative thinking. Try the Pomodoro Timer hack: 25 minutes work, 5-minute break.

3. Collaborate with others

Team up with others. Sharing and building ideas can lead to brilliance.

4. Doodle and Daydream

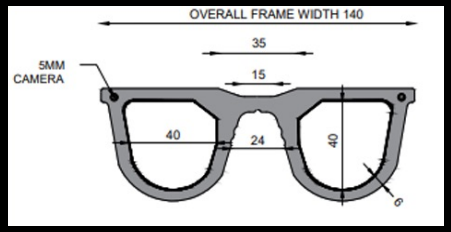
Relax and let your thoughts wander. Great ideas often come when you're not forcing them.

Prototyping examples

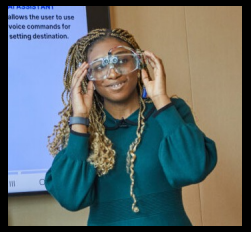
Not sure what a prototype is? Or need some ideas before making your own? Look no further - here's some examples from past Solve for Tomorrow entrants.

Glimpse

A pair of smart glasses powered by AI technology to assist people with visual impairments.



Phase 1 prototype



Runner-Up (16-18), Dami, demonstrating her final product

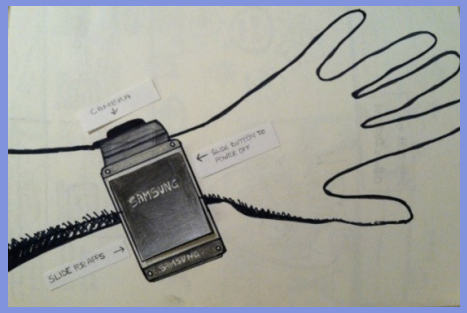
Minkap

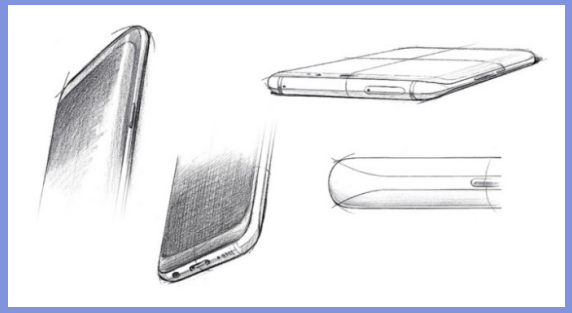
A beanie designed to improve the quality of life for stroke victims.

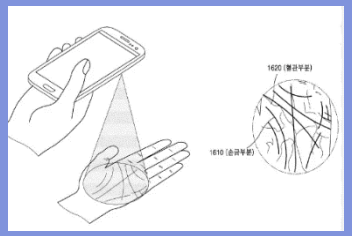
Phase 1 prototype (initial sketch)

Finalist (16-18) Emmanuel Minka, creating his prototype

Here at Samsung, a product could go through hundreds of prototypes before reaching the final product. However, it all starts with a simple sketch or model.







Thinking of developing an app?
Check out this paper prototype video.