

The Imagination Lab

Welcome to The Imagination Toolbox!

The toolbox is built to help you grow your imagination and think creatively to solve problems.

With 38 unique activities, this deck of cards will help you spark new ideas and refine the ones you have, no matter where you are in your creative process.

17 Get Ideas cards (blue)

Help spark new ideas.

14 Boost Ideas cards (yellow)

Help develop ideas you already have.

7 Prototype cards (red)

Take your ideas to the next level.



6 ways to grow your imagination



Explore



Play



Collaborate



Research



Collect



Recharge

You can use some cards on your own.
For others, you need a partner or group.
Look at the person icon on the front to
see the minimum number of people.



Get Ideas summary

Activity	People	Time	Goal	Imagination Amplifier
Crazy Eights	1	5 min	Generate lots of ideas quickly.	Play
Idea Relay	2+	5 min	Spark new ideas as a team.	Collaborate
Inspiration Hunt	1-2	10-15 min	Find inspiration in existing solutions.	Research
Nature Explorer	1-2	10-15 min	Find inspiration in nature.	Recharge
Solve It Like...	1-2	10 min	Change your perspective on a problem.	Explore
Super Solving	1-2	10 min	Spark wild and creative ideas.	Play
Sketch to Think	1	5 min	Spark ideas through drawing.	Recharge
Role Play Your Problem	2+	10 min	Explore problems through action.	Collaborate
Idea Dice	1-2	5–10 min	Generate new ideas with random twists.	Play
Tech Mash-Up	1-2	10 min	Combine different tech to solve your problem.	Collect
Object Remix	1-2	5–10 min	Use a random object to spark solutions.	Collect
What If...?	1	10 min	Explore unusual possibilities.	Explore
Problem Swap	2+	10 min	See your problem from a new perspective.	Collaborate
AI Prompt Challenge	1-2	10 min	Use AI as a partner to spark ideas.	Research
Idea Magpie	1-2	5–10 min	Combine inspirations from the world into solutions.	Collect
Junk Modelling	1-2	10 min	Use whatever you have lying around to spark fresh ideas.	Recharge
5 Whys	1-2	10 min	Find the root cause of your problem to uncover new ideas.	Explore

Boost Ideas summary

Activity	People	Time	Goal	Imagination Amplifier
SCAMPER Your Idea	1-2	10-15 min	Refine ideas by changing parts of them.	Explore
Thinking Hats	1-2	10-15 min	Explore your idea from 6 different perspectives.	Explore
Dot Voting	2+	10-15 min	See which ideas stand out to the group.	Collaborate
MoSCoW Sort	1-2	10 min	Decide which parts of your idea are essential and which are optional.	Explore
Future Thinking	1-2	10 min	Refine your idea by thinking long-term.	Research
Constraints Challenge	1-2	10 min	Improve your idea by putting it under pressure.	Play
User Journey Map	1-2	10 min	Check if your idea works step by step.	Explore
Top 3 Test	1-2	5 min	Focus your idea on the most important features.	Explore
Failure Forecast	1-2	10 min	Make your idea stronger by predicting problems.	Explore
Elevator Pitch	1-2	5 min	Make your idea clear and convincing.	Explore
Feedback Swap	2+	10 min	Get feedback to improve your idea.	Collaborate
Paper Prototype	1-2	15 min	Make a quick prototype to see where issues might lie.	Play
Idea Auction	1-2	10-15 min	Decide which ideas to develop.	Collaborate
Design For Good	1-2	10 min	Improve your idea by making it more inclusive, sustainable or community-focused.	Research
Idea Magpie	1-2	5-10 min	Combine inspirations from the world into solutions.	Collect
Junk Modelling	1-2	10 min	Use whatever you have lying around to spark fresh ideas.	Recharge
5 Whys	1-2	10 min	Find the root cause of your problem to uncover new ideas.	Explore

Prototype Ideas summary

Activity	Description	When to use it
Junk model	Build a model out of card, paper and other recyclable materials.	Your idea is an object, like a gadget or wearable.
3D model	Use a free modelling tool or app to create a digital 3D model of your idea.	Your idea is hard to build or needs a precise shape.
Storyboard	Create a visual step-by-step guide to what to do and how it works.	Your idea has lots of steps to follow.
Wireframe	Create a simple plan of an app or website's layout and functions.	Your idea has a screen, is an app or website.
Plastic bricks	Use plastic bricks to build a mock-up.	You want a rough version that you can change fast.
2D plans	Draw 2D plans that show the detailed features that make your idea work.	You need to show important details from different angles.
3D Printing	Design and print a model that shows your design's important features.	You need a precise physical model.

Prototype picker

Wearable tech	Junk model, 3D model, 2D plans, Bricks
Sensor	3D models, 3D print, 2D plans, Bricks
App/Website	Wireframe
Device	Junk model, 3D model, 3D print, 2D plans, Bricks
All	Storyboard

The best type of prototype to use depends on your idea, and there isn't one right answer. Often, it can help to make more than one type (think a 3D prototype for a wearable device and a story board for the app that goes with it).

Tip: Your prototype may need to change after testing!

- **If the steps were confusing** – add storyboard frames or clearer labels
- **If people struggled to imagine the object** – tidy your junk model, add 2D plans or a simple 3D model
- **If the value wasn't clear** – add a "before – after" frame or make a promo video
- **If there were lots of parts** – add zoom-ins or a "How it works" panel

Get Ideas

Play



Crazy Eights

Let your ideas run wild



1



5 min

Get Ideas

Play



Goal:

Generate lots of ideas quickly.

How to do:

- Grab a piece of paper and fold it into 8 boxes (or use 8 sticky notes!).
- Set a 5-minute timer.
- Fill every box with a different idea. Every box must be full, so write any idea you have – no matter how crazy!

Get Ideas

Collaborate



Idea Relay

Grow ideas together!



2+



5 min

Get Ideas

Collaborate



Goal:

Spark new ideas as a team.

How to do:

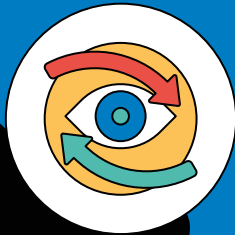
- One person shares or writes down an idea. It can be very basic at this stage – just the beginnings of an idea!
- Next person adds by saying "Yes, and..." or "What if...".
- Repeat for 5 minutes, passing from person to person to build a new idea.

Variants:

Work in 2-minute bursts for speed rounds.

Get Ideas

Research



Inspiration Hunt

Look outside your brain!



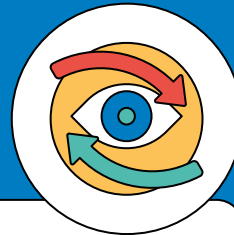
1-2



10-15 min

Get Ideas

Research



Goal:

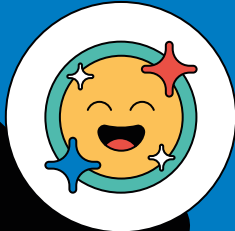
Find inspiration in existing solutions.

How to do:

- Search online to hunt for 3 inventions, apps, or gadgets tackling similar problems to the one you're hoping to solve.
- How could you adapt these ideas to solve your problem?
- What could you add, remove, or change?

Get Ideas

Recharge



Nature Explorer

Explore the great outdoors!



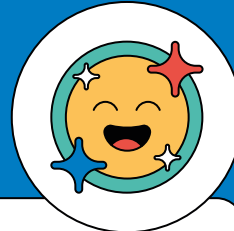
1-2



10-15 min

Get Ideas

Recharge



Goal:

Find inspiration in nature.

How to do:

- Nature is ingenious. It finds solutions to animals' or plants' problems all the time. Take a walk and notice interesting objects in nature. Research or think about natural solutions to problems similar to yours.
- How do you think nature would solve your problem?
- How could you recreate this using technology?

Get Ideas

Explore



Solve It Like...

Put yourself in someone else's shoes!



1-2



10 min

Get Ideas

Explore



Goal:

Change your perspective on a problem.

How to do:

- Imagine how a well-known person or character might approach your problem.
- What would they try first?

Get Ideas

Play



Super Solving

Solve it with superpowers!



1-2



10 min

Get Ideas

Play



Goal:

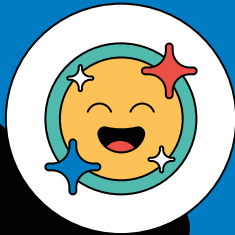
Spark wild and creative ideas.

How to do:

- Imagine that a superhero was facing your problem.
- How would they use their powers to solve it?
- How could you recreate their superpowers using technology?

Get Ideas

Recharge



Sketch To Think

Draw to discover new ideas!



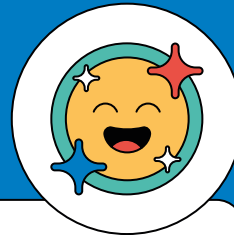
1



5 min

Get Ideas

Recharge



Goal:

Spark ideas through drawing.

How to do:

- Grab a piece of paper and set a 5-minute timer.
- Draw anything you can think of related to your problem: people, places, tools, solutions – anything that comes to mind!
- Add arrows, labels, or notes.
- Don't worry about being neat!
- Look at your sketch – new ideas often appear just by seeing things on paper.

Get Ideas

Collaborate



Role Play Your Problem

Act it out, see new ideas!



2+



10 min

Get Ideas

Collaborate



Goal:

Explore problems through action.

How to do:

- Pick a scenario from your problem.
- Assign roles: person, helper, and/or object.
- Act out a short scene, focusing on actions and frustrations.
- Pause and ask "What opportunities do you see?".

Get Ideas

Play



Idea Dice

Roll to remix ideas!



1-2



5-10 min

Get Ideas

Play



Goal:

Generate new ideas with random twists.

How to do:

- Grab a die and start with an idea.
- Each number = a creative twist:
 - 1: Add a robot or automated feature
 - 2: Shrink it down (make it pocket-sized or wearable)
 - 3: Swap the user (a younger kid, an older adult, or even a whole community)
 - 4: Make it playful (turn it into a game, challenge, or reward system)
 - 5: Mix with nature (use patterns, processes, or materials inspired by the natural world)
 - 6: Combine with an app, sensor, or wearable device
- Roll the die a few times to come up with a list of features for your new invention!
- No die? Use a random number generator online.

Get Ideas

Collect



Tech Mash-Up

Mix tech for new solutions!



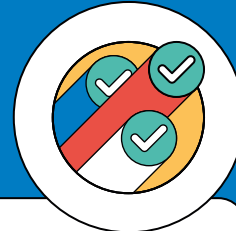
1-2



10 min

Get Ideas

Collect



Goal:

Combine different tech to solve your problem.

How to do:

- List the types of tech you could use – for example:
 - Wearable tech (smartwatch, fitness band)
 - Apps (phone or tablet software)
 - Sensors (motion, temperature, or environmental sensors)
 - Voice assistants (on phones, smart speakers)
 - Robots or drones
 - Other tech (3D printing, AR/VR, AI)
- Pick 2 or more of these technologies and think about how you could combine them to solve your problem.

Get Ideas

Collect



Object Remix

A random object = new ideas!



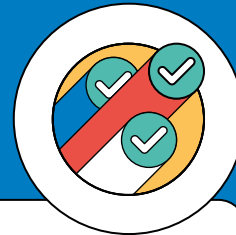
1-2



5-10 min

Get Ideas

Collect



Goal:

Use a random object to spark solutions.

How to do:

- Pick an object nearby.
- How could you adapt it to help solve your problem?
- Could it move, talk, or connect to an app?
- Could it be combined with something else?

Get Ideas

Explore



What If...?

Imagine the impossible!



1



10 min

Get Ideas

Explore



Goal:

Explore unusual possibilities.

How to do:

- Grab a piece of paper and set a 5-minute timer.
- Write down as many "What if...?" questions as you can think of to do with your problem.
- Use prompts to spark your imagination:
 - What if your problem could solve itself automatically?
 - What if your solution could talk to you or someone else?
 - What if your problem was solved by a mini helper, robot, or app?
 - What if the environment (school, home, city) could change to help?
- Set another 5-minute timer and use your "What if...?" questions to help you write down as many ideas as possible.

Get Ideas

Collaborate



Problem Swap

Solve someone else's problem!



2+



10 min

Get Ideas

Collaborate



Goal:

See your problem from a new perspective.

How to do:

- Swap problems with another person or group.
- See if you can come up with a solution to their problem – your mind might work differently to theirs and think of something they hadn't!
- Discuss unexpected solutions.

Get Ideas

Research



AI Prompt Challenge

Team up with AI!



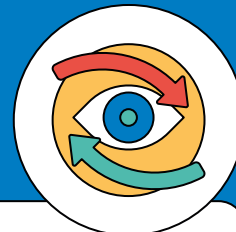
1-2



10 min

Get Ideas

Research



Goal:

Use AI as a partner to spark ideas.

How to do:

- Open up an AI language model.
- Write your own prompt describing your problem in as much detail as possible.
- Take the AI's suggestions and refine them using SCAMPER or Thinking Hats (for tips on how to do this, use the yellow cards!) - make them your own!

Remember:

AI is a partner, not a replacement for your brain.

Get Ideas

Collect



Idea Magpie

Collect and remix inspirations!



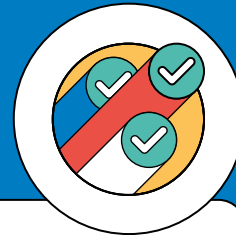
1-2



5-10 min

Get Ideas

Collect



Goal:

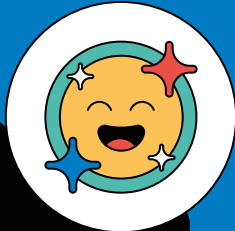
Combine inspirations from the world into solutions.

How to do:

- Think about your daily life; the technology you use in lessons, the websites you spend time on, the films you watch, music you listen to, games you play or books you read.
- What particular parts of any of these do you find enjoyable, or help you to do something?
- How could you combine these to help solve your problem?

Get Ideas

Recharge



Junk Modelling

Hands-on ideas!



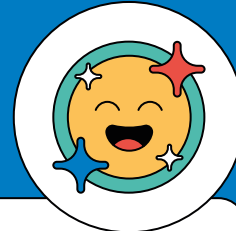
1-2



10 min

Get Ideas

Recharge



Goal:

Use whatever you have lying around to spark fresh ideas.

How to do:

- Grab anything that you're happy to cut, fold, or use up (think: re-using scrap paper or string, tape, paperclips).
- Build shapes or mini models linked to your problem.
- Don't worry about making something that makes sense – this is just about sparking new ideas by using your hands!
- Show your build to a partner and talk to them about how you could add different technologies to solve your problem.

Get Ideas

Explore



5 Whys

Dig deeper to fix the real problem!



1-2



10 min

Get Ideas

Explore



Goal:

Find the root cause of your problem to uncover new ideas.

How to do:

- Look at your problem.
- Ask and answer "Why does this happen?"
- Look at the answer, and repeat "Why does this happen?"
- Repeat 5 times. Each answer leads to a deeper "why".
- After 5 "Why?" questions, you will have uncovered the real root of the problem.
- How could this root cause be addressed?

Boost Ideas

Explore



SCAMPER Your Idea

Twist, turn, and turbo-charge your idea!



1-2



10-15 min

Boost Ideas

Explore



Goal:

Refine ideas by changing parts of them.

How to do:

Pick 1 or 2 letters from SCAMPER to refine your idea:

- **Substitute** – Replace a part, material, or feature with something else.
- **Combine** – Combine different components, features or materials to make your idea more effective.
- **Adapt** – Change something about your idea to make it work in a different context or for a new audience.
- **Modify/Magnify** – Make it bigger, smaller, faster, stronger, or more fun to use.
- **Put to another use** – Use your idea to solve another problem without changing how it works.
- **Eliminate** – Remove or simplify a part of your idea.
- **Reverse/Rearrange** – Change the order that your idea works in, or think about making it the opposite of itself.

Boost Ideas

Explore



Thinking Hats

Look at your idea from every angle!



1-2



10-15 min

Boost Ideas

Explore



Goal:

Explore your idea from 6 different perspectives.

How to do:

- Pick one or two coloured hats to think through, or use a random colour generator:
 - **White** – Facts & info: What do you know? What do you need to find out?
 - **Red** – Feelings & intuition: How will this idea make people feel?
 - **Black** – Caution: What could go wrong?
 - **Yellow** – Benefits: What's good about this idea?
 - **Green** – Creativity: What improvements could you make?
 - **Blue** – Big picture: Remember the problem you're trying to solve. Does this idea do this?

Boost Ideas

Collaborate



Dot Voting

Pick the ideas that shine!



2+



10-15 min

Boost Ideas

Collaborate



Goal:

See which ideas stand out to the group.

How to do:

- In a group, everyone writes their idea onto a large sheet of paper or on sticky notes.
- Give each person 3-5 sticky dots (or use marker pens).
- Read everyone's ideas, and place dots on your favorites.
- Each person can use all their votes for their top pick or spread their votes across a few ideas.
- Count up the votes and discuss why the top ideas stand out.

Boost Ideas

Explore



MoSCoW Sort

Decide what really matters!



1-2



10 min

Boost Ideas

Explore



Goal:

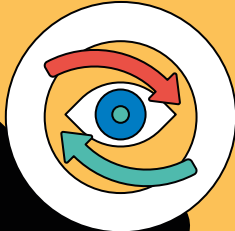
Decide which parts of your idea are essential and which are optional.

How to do:

- List the features of your idea.
- Sort them into 4 groups:
 - Must have
 - Should have
 - Could have
 - Won't have
- Focus on perfecting the "Must haves" to sharpen your idea.

Boost Ideas

Research



Future Thinking

See your idea in the future!



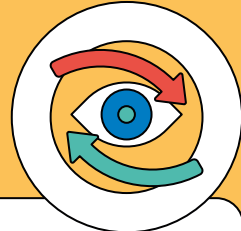
1-2



10 min

Boost Ideas

Research



Goal:

Refine your idea by thinking long-term.

How to do:

- Look at your idea and ask yourself:
 - "What will this look like in 1 year?"
 - "How about in 10 years?"
- Think about whether your idea will last and still be useful in the future.
- How could it be made more sustainable?
- You can research similar ideas online to help you make your predictions.
- Use your answers to refine your idea so it works long-term, not just today.

Boost Ideas

Play



Constraints Challenge

Tight limits = smarter ideas!



1-2



10 min

Boost Ideas

Play



Goal:

Improve your idea by putting it under pressure.

How to do:

- Add constraints like:
 - Costs less than £10
 - Works without electricity and/or Wi-Fi
 - Pocket-size
 - Accessible for people with limited mobility
- Rework your idea to fit the constraints.

Boost Ideas

Explore



User Journey Map

Step into your user's shoes!



1-2



10 min

Boost Ideas

Explore



Goal:

Check if your idea works step by step.

How to do:

- Draw the steps a person would take to use your idea.
- At each stage ask yourself:
 - "What do they do?"
 - "What do they think?"
 - "How do they feel?"
- Look for any gaps or frustrations that you could improve.

Boost Ideas

Explore



Top 3 Test

Find your idea's heart!



1-2



5 min

Boost Ideas

Explore



Goal:

Focus your idea on the most important features.

How to do:

- List all the features of your idea.
- Circle the 3 most important ones.
- Can it still work if it only had those 3 features?
- If not, it might be too complicated – refine it to focus on what matters most.

Boost Ideas

Explore



Failure Forecast

Spot weaknesses before they happen!



1-2



10 min

Boost Ideas

Explore



Goal:

Make your idea stronger by predicting problems.

How to do:

- Pretend that your idea has failed.
- Why did it fail? What went wrong, and at what stage?
- Write down the possible reasons.
- Now go back and fix those issues before they happen.

Boost Ideas

Explore



Elevator Pitch

Explain it fast and clear!



1-2



5 min

Boost Ideas

Explore



Goal:

Make your idea clear and convincing.

How to do:

- Explain your idea in 3 key sentences:
 - What is the problem?
 - What is the solution?
 - What is the benefit?
- Try to cut these sentences down so that you can explain your idea in 30 seconds or less.
- If it sounds confusing, refine your idea until it's sharp and simple.

Boost Ideas

Collaborate



Feedback Swap

Fresh eyes = better ideas!



2+



10 min

Boost Ideas

Collaborate



Goal:

Get feedback to improve your idea.

How to do:

- Pair up with another person or group.
- Explain your idea in 2 minutes.
- Listen while they give questions, reactions, and suggestions.
- Swap roles, then use their feedback to refine your idea.

Boost Ideas

Play



Paper Prototype

Build it to see it!



1-2



15 min

Boost Ideas

Play



Goal:

Make a quick prototype to see where issues might lie.

How to do:

- Gather materials like paper, card, sticky notes, tape, string, paperclips, or rubber bands. Reuse what you already have!
- In 10–15 minutes, make a rough version of your idea. It's okay to be messy!
- Show your idea to someone else and ask them to tell you what they think:
 - "What works?"
 - "What's confusing?"
 - "How could it be improved?"

Boost Ideas

Collaborate



Idea Auction

Bid on the best ideas!



1-2



10-15 min

Boost Ideas

Collaborate



Goal:

Decide which ideas to develop.

How to do it (group):

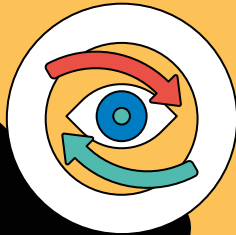
- Each person gets the same number of "idea dollars" (use slips of paper, tokens, or coins).
- Write your ideas on a large piece of paper or on sticky notes.
- Everyone secretly "invests" their dollars in the ideas they think are the strongest, most exciting, or most sustainable.
- Reveal the bids and discuss why people invested the way they did.

How to do it (solo):

- Give yourself a limited budget of 10 "idea dollars".
- Look at your list of ideas and "spend" the dollars based on which ones you think are most powerful, fun, or good for the planet.
- Notice which ideas get the biggest chunk – these are the ones to refine further.

Boost Ideas

Research



Design For Good

Make your idea do more good!



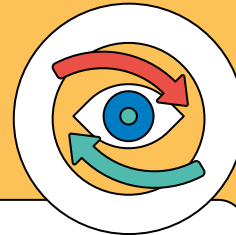
1-2



10 min

Boost Ideas

Research



Goal:

Improve your idea by making it more inclusive, sustainable or community-focused.

How to do:

- Choose one "flip" prompt from the list below.
- Do some research and sketch or list 2-3 ways to flip your idea to make it better.

Flip prompts:

- Sustainability flip – What's the most wasteful or resource-heavy part of this idea? How could you change it to reduce waste, energy, or materials?
- Inclusivity flip – Who might find it hard to use this? How could you redesign it so they're included?
- Community flip – Who else could benefit from this idea if you changed how it works or who it's for?

Examples:

- "The app could use dark mode to save battery."
- "Voice control could be added so people with low vision can use it."
- "It could be redesigned to work in shared spaces like libraries or youth centres."

Prototype



Junk model

Build a model out of card, paper and other recyclable materials.

Why

When people can hold and interact with your idea, they can imagine using it and how it could be better.

Make it

When to use it:

Your idea is an object, like a gadget or wearable.

Make it:

- Use recycled packaging and tape to create a rough model of a product.
- It doesn't need to be pretty – just clear.

What to submit

One or more photos of your model with labels showing the important parts.

Prototype



3D model

Use a free modelling tool or app to create a digital 3D model of your idea.

Why

Creating a digital 3D model helps you see what your product looks like and how it will work, and to spot any design issues.

Make it

When to use it:

Your idea is hard to build with junk or needs a precise shape that's easier to show digitally.

Make it:

- Start by creating the basic shapes of your product.
- Add details and key features like inputs and outputs.

Tools to help:

Google Sketchup Free, FreeCAD, Blender Free

What to submit:

2–3 screenshots of your digital model with labels explaining key features.

Prototype



Storyboard

Create a visual step-by-step guide to what to do and how it works – like a comic strip with a picture (frame) and caption for each step.

Why

Exploring the 'user journey' spots missing steps, actions or functions in your idea.

Make it

When to use it:

Your idea has lots of steps to follow.

Make it:

- List all the important steps in using your idea.
- Create a frame + caption for each step.

Tools to help:

Storyboard That, Canva, Studiobinder

What to submit:

A clear photo or export of your storyboard.

Prototype



Wireframe

Create a simple plan of an app or website's layout and functions that shows how it will work.

Why

Exploring the 'user journey' spots missing steps, actions or functions in your idea.

Make it

When to use:

Your idea has a screen, is an app or website.

Make it:

- List all the important steps in using your idea.
- Plan what screens or pages you'll need, and what will go on each one.
- Keep asking "How?" How will someone...? How will our idea...?

Tools to help:

Wireframe.cc, Figma, Miro

What to submit:

Export or screenshots of your main screens with labels explaining each part.

Prototype



Plastic bricks (like Lego)

Use plastic bricks to build a mock-up.

Why

When people can hold and interact with your idea, they can imagine using it and how it could be better.

Make it

When to use:

You're not certain of your idea and you want to create a rough version that you can change fast and test again.

Make it:

- Start by creating the basic shapes of your product.
- Add details and key features like inputs and outputs (these could be stickers as well as bricks)

What to submit:

One or more photos of your brick model with labels showing the features or parts.

Prototype



2D plans

Draw 2D plans that show the detailed features that make your idea work well. Draw on paper or use a digital tool.

Goal

When people can interact with your idea and see its key features, they can imagine using it and how it could be better.

Make it

When to use:

You need to show important details – like where parts, sensors or buttons go – from different angles.

Make it:

- Start by creating the basic shapes of your product.
- Draw plans for each side, top and bottom.
- Add details and key features like inputs and outputs.

Tools to help:

Krita, Adobe Fresco, Canva

What to submit:

Your neat final plans (photo or digital file) with labels for the important details.

Prototype



3D Printing

Design and print a simple model of your design that shows its most important features.

Goal

When people can hold and interact with your idea, they can imagine using it and how it could be better.

Make it

When to use:

You need a precise physical model to show detailed shapes or features.

Make it:

- You'll need access to a 3D printer and CAD drawing software.
- Start by creating the basic shapes of your product.
- Add details and key features like inputs and outputs.

What to submit:

A photo or photos of your printed model with labels showing key features.