Ai For GOOD Design Challenge

IDEATE - PROTOYPE - ACTIVATE

Student Journal

Bring your project from idea to reality!

3 GOOD HEALTH AND WELL-BEING

15 LIFE ON LAND

13 CLIMATE ACTION

Solve Real-World Problems with AI

Choose one of three United Nations Sustainable Development Goals (SDGs): Life on Land (SDG 15), Good Health and Well-Being (SDG 3), Climate Action (SDG 13)

New Nouveau Brunswick CANADA

Brilliant LABS LABOS Créatifs

Centre of Excellence DIGITAL INNOVATION

Ai For GOOD Design Challenge

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Introduction

Welcome to the AI for Good Challenge! You are about to become an inventor, a problem solver, and AI Engineers. Your mission is to use Artificial Intelligence (AI) to help solve a real-world problem.

Your Name: _____

Team Name (if any)_____

Teamwork

Teamwork and collaboration are key to success in this challenge. Make sure everyone on your team has a role and is contributing to the project. Every member has an interest, skill, or talent they can bring to the team. Find out what that is and how you can use it to help your team succeed! Who will be the project manager? The accountant? The hardware engineer? The software engineer? The researcher? Want to be a CEO? Now is your chance!

Name: _____ **Role:** _____

Name: _____ **Role:** _____

Name: _____ **Role:** _____

Name: _____ **Role:** _____

Name: _____ **Role:** _____

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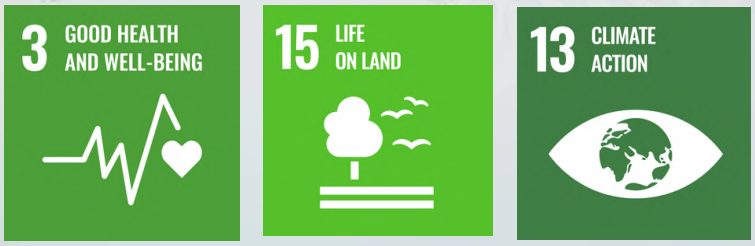
Choose Your Goal (The SDGs)

The United Nations has set 17 Sustainable Development Goals (SDGs) to make the world a better place. For this challenge, pick ONE of these THREE to focus on:



[ ] SDG 3: Good Health and Well-Being (Helping people stay healthy, both physically and mentally.)

[ ] SDG 13: Climate Action (Protecting the planet and fighting climate change.)

[ ] SDG 15: Life on Land (Protecting animals, forests, and nature.)

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Phase 1: Ideation (Brainstorming)

Now that you have your goal, what is a specific problem you see? Let's brainstorm!

1. What are 3 problems in your community (or the world) related to your chosen SDG?

Idea A: _____

Idea B: _____

Idea C: _____

2. Pick your favorite problem from above. Write a "What if..." question:

What if... _____

_____

_____

_____

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Identify a specific problem within your chosen SDG. Consider the root causes, not just the symptoms.

3. **Problem Statement Analysis:**

The Issue: _____

_____

_____

The Root Causes (Why does this happen?): _____

_____

_____

The Stakeholders (Who does this impact?): _____

_____

_____

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What does your AI solution do? (Choose the one that fits best)

[ ] Computer Vision (The "Eyes")

Use Case: Image classification, object detection - like recognizing a type of plant
Project Idea: An AI that identifies invasive species or monitors reef health through underwater photography.

[ ] Predictive Analytics (The "Forecaster")

Use Case: Processing large datasets find patterns or to predict environmental disasters or disease outbreaks before they happen.
Project Idea: Develop an app to inform when weather will be good or bad for farming certain crops.

[ ] Natural Language Processing - NLP (The "Communicator")

Use Case: Breaking down language barriers or simplifying complex sytems.
Project Idea: A multilingual AI assistant that helps navigate specific systems to reduce anxiety or Text analysis, sentiment, generation - like a chatbot that answers health questions

[ ] Generative AI & Creative Orchestration (The "Builder")

Use Case: Using agentic AI to orchestrate and generate code, design assets, or simulate solution outcomes with generative AI tools.
Project Idea: Using Generative AI to create educational content, such as nautical-themed children's books that teach reef conservation. or creating new content based on parameters - like a healthy recipe generator

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Describe your AI solution in 3 sentences:

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Phase 2: Validation

(Checking your idea to see if it makes sense or that no one has already done it)

Before you build, you need to make sure your idea actually helps!

1. **Who are you helping (Describe the person/s or animal/s, etc... that need this.)**

_____

_____

2. **What DATA does your AI need to learn? (AI needs examples to learn. If you're building a plant identifier, it needs thousands of pictures of plants. If you're building a weather predictor, it needs past weather data.)**

My AI needs data about: _____

_____

3. **What specific data points does your AI model need to learn from? Be specific.**

Feature 1: _____
Feature 2: _____
Feature 3: _____

Where will you get this data? (e.g., Public / Open Source datasets, sensor data, user input)?

_____

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The Ethics Check:

Could your AI accidentally be unfair or leave someone out? (e.g., Does it only recognize certain languages? Does it cost too much?)

_____

_____

***Bias: What happens if your training data is flawed? Who might be unfairly disadvantaged or incorrectly analyzed by your model?**

_____

_____

Privacy: Are you handling sensitive data (e.g., health records)? How will you ensure user privacy is protected?

_____

_____

The Validation Pivot: Based on this validation process, inclucing the data and ethics assessment, do you need to change your idea? (Yes/No. Explain.)

_____

_____

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Phase 3: Prototyping (Building It!)

It's time to show how your idea works. You don't have to build a real, fully-coded AI solution today, but you need to work towards building a "prototype" (a model). Don't stress! AI can guide you through the steps if needed for all the examples below!

1. No-Code / Vibe-Coding / Agentic Engineering (The "Interface")

Use Case: These platforms allow students to build "front-ends" and/or "back-ends", UI / UX, where users interact with their AI solution. (VS Code, Codex, Antigravity, Claude Code, Cursor, Lovable, Base 44, Replit, Block based coding, etc.)

2. AI Model Training & Agentic Frameworks (The "Logic")

Use Case: These tools help students build the actual "brain" of their solution, including multi-step workflows, data gathering and processing. (Teachable Machine, TensorFlow, PyTorch,OpenCV, LangChain, Autogen, etc...)

3. Hardware Prototyping (The "Physical Impact")

Use Case: For students working on projects where hardware allows their AI to interact with the physical world. (micro:bit, b.Board, Arduino, ESP32, Jetson, Rasberry PIs, Robotics platforms, etc..)

4. Synthesis & Documentation Tools (The "Research Assistant")

Use Case: Synthesizing research, organizing project logic into cohesive study guides and briefs, leveraging or designing tools that can automatically turn structured project briefs into visually themed decks for presentation. (Notebook LM, Various AI models, etc...)

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Architecture - Diagram / Workflow

Architecture Diagram / User Flow:
Sketch out the flow: User Input -> Data Collection -> AI Processing -> Output/Action.

Sketch your Prototype Plan here:
(Draw the main screen of your app, or the physical shape of your robot!)

What happens if the AI makes a mistake? (e.g., If the plant identifier is wrong, what does the app do?)

_____

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Final Pitch Readiness

Final Pitch Readiness

Are you ready to explain your idea? You should be able to say: "My team built [**Name of Project**], an solution that uses [**Type of AI**] to help [**Who it helps**] with [**The SDG problem**]."

Be sure to explain what differentiates your solution and makes it unique!

Does every team member have a role in the presentation?

Write out the script and practice your pitch!

Submission Details

- **Deadline for Initial Project Submission:** April 17, 2026
- **Promising projects notified:** April 30th, 2026
- **Final projects will have 4 weeks to improve their projects with mentor support.**
- **Atlantic AI Summit:** June 3, 2026, UNB Fredericton

Contact Information

For questions, support, or to set up a meeting for your students, please contact :

EMAIL
jeff@brilliantlabs.ca

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Student Design Journal — Design Process

Name | Team | SDG Track | Date

1 EMPATHIZE

Who are you designing for? What are their needs, challenges, and experiences?

2 DEFINE

What is the core problem you've identified? Write a clear problem statement.

3 IDEATE

What are possible AI-powered solutions? Brainstorm without limits.

4 PROTOTYPE

What does a simple version of your solution look like? Sketch or describe it.

5 TEST

How will you test your prototype? What feedback did you receive?

6 ITERATE

What changes will you make based on feedback? What did you learn?

7 COMMUNICATE

How will you present your solution? What is your key message?

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Student Design Journal — Lean Canvas

Name | Team | SDG Track | Date

1. PROBLEM

Whatspecificproblem are you trying to solve?

2. SOLUTION

Whatisyourproposed AI solution?

3. UNIQUE VALUE PROPOSITION

What makesyour solution different from what already exists?

4. UNFAIR ADVANTAGE

What advantagedo youhavethat others cannot easily copy?

5. ACCESSIBILITY

Who is yourtargetaudience and how will you reach them?

6. VALIDATE

Whatevidencesupports your idea? Research the feasibility and impact of your solution.

7. KEY METRICS

How willyoumeasurethe success of your solution?

8. SUSTAINABILITY & RESOURCE FLOW

Whatarethecosts?Howwillyougeneraterevenue(ifapplicable)? Is it financially sustainable?

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Student Design Journal — Final Pitch Readiness

Name | Team | SDG Track | Date

YOUR PITCH STATEMENT

"My team built *Name of Project*, a solution that uses *Type of AI* to help *Who it helps* with *The SDG problem*."

WRITE YOUR PITCH SCRIPT

Write out your full pitch below. Practice reading it aloud until it feels natural!

WHAT MAKES YOU UNIQUE?

What differentiates your solution from what already exists?

TEAM PRESENTATION ROLES

Does every team member have a role?

TEAM MEMBER	PRESENTATION ROLE

READINESS CHECK: ☐ Pitch statement complete ☐ Script written & practiced ☐ Unique value explained ☐ All members have a role ☐ Rehearsed as a team