


## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	18 October 2023
Team ID	Team-592995
Project Name	ConstructGuard_YOLO-Based Safety Gear Surveillance
Maximum Marks	4 Marks

#### Brainstorm & Idea Prioritization Template:

##### Step-1: Team Gathering, Collaboration and Select the Problem Statement



### Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- 🕒 10 minutes to prepare
- 🕒 1 hour to collaborate
- 👥 2-8 people recommended

➔

#### Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes

---

- A Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.
- B Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.
- C Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) ➔

1

#### Define your problem statement


What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes

---

#### PROBLEM

The aim is to develop a machine learning model that analyses live surveillance footage of construction sites in order to ensure that the workers are appropriately equipped with safety gear.



#### Key rules of brainstorming

To run a smooth and productive session

- 👤 Stay in topic.
- 💡 Encourage wild ideas.
- ⏸️ Defer judgment.
- 👂 Listen to others.
- 🗣️ Go for volume.
- 👁️ If possible, be visual.

## Step-2: Brainstorm, Idea Listing and Grouping

### 2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

**Jotiraditya**

- Perform object detection on live surveillance footage.
- Provide access to construction site only if worker is wearing appropriate safety gear.
- Develop a web application to make model more user friendly.

**Ishan**

- Use YOLO model for object detection.
- Send alert to manager if worker removes safety gear within the construction site.
- Extend model to safety pertaining to machinery used for construction.
- Provide managers with an analytics dashboard that gives them a weekly report.

**TIP**  
You can select a sticky note and hit the pencil (switch to edit) icon to start drawing!

### 3 Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

**TIP**  
Add customizable tags to sticky notes to make it easier to find, break up, organize, and categorize important ideas as themes within your mural.

- Perform object detection on live surveillance footage.
- Use YOLO model for object detection.
- Provide access to construction site only if worker is wearing appropriate safety gear.
- Send alert to manager if worker removes safety gear within the construction site.
- Develop a web application to make model more user friendly.
- Provide managers with an analytics dashboard that gives them a weekly report.

## Step-3: Idea Prioritization

### 4 Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes

**TIP**  
Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the **Enter** key on the keyboard.

**Importance**  
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

**Feasibility**  
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

- Use YOLO model for object detection.
- Perform object detection on live surveillance footage.
- Send alert to manager if worker removes safety gear within the construction site.
- Provide access to construction site only if worker is wearing appropriate safety gear.
- Provide managers with an analytics dashboard that gives them a weekly report.
- Develop a web application to make model more user friendly.