

## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	4 November 2023
Team ID	592614
Project Name	Arming Against Violence - YOLO-Based Weapon Detection
Maximum Marks	4 Marks

#### Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

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.

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

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##### Problem statement

The problem we are trying to solve is the increasing concern for public safety in various environments, ranging from public spaces to sensitive areas, due to the potential presence of concealed weapons. Traditional methods of security and surveillance often fall short in providing real-time and accurate detection of such threats, posing a significant challenge in preventing acts of violence. To address this, we aim to develop a YOLO-based weapon detection system that leverages advanced computer vision techniques to swiftly and precisely identify weapons within images or video streams.

⌚ 5 minutes

PROBLEM

How might we spark student interest in local issues?



##### 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

#### Vasu

Augmented Reality Safety Glasses

Develop a crowdsourced map that visualizes reported or detected weapon threats in specific areas.

Enhance public transportation safety by incorporating YOLO-based weapon detection in smart bus stops.

#### Mokshagna

Integrate YOLO-based weapon detection technology into smart classrooms.

Create a community-driven mobile app that allows users to report and share images or videos with potential weapon sightings.

#### Dhruv

Drone Surveillance System

Install interactive kiosks equipped with YOLO-based detection at public transportation hubs.

Users can discreetly scan their surroundings during public transportation journeys, and the app will provide real-time threat assessments.

#### Saquiib

Explore the integration of YOLO-based weapon detection with wearable devices, such as smartwatches.

Implement YOLO-based weapon detection in hospital security systems to safeguard healthcare environments

### 3 Group Ideas

20 minutes

#### SECURITY

Implement YOLO-based weapon detection in hospital security systems to safeguard healthcare environments

Develop a crowdsourced map that visualizes reported or detected weapon threats in specific areas.

#### Drone Surveillance System

#### MOBILE APPLICATION

Create a community-driven mobile app that allows users to report and share images or videos with potential weapon sightings.

Users can discreetly scan their surroundings during public transportation journeys, and the app will provide real-time threat assessments.

#### SMART DEVICES

Integrate YOLO-based weapon detection technology into smart classrooms.

Explore the integration of YOLO-based weapon detection with wearable devices, such as smartwatches.

#### Augmented Reality Safety Glasses

#### TRANSPORTATION

Enhance public transportation safety by incorporating YOLO-based weapon detection in smart bus stops.

Install interactive kiosks equipped with YOLO-based detection at public transportation hubs.

## Step-3: Idea Prioritization

