

Military Vehicle Image Detection — Labeling Guideline

Objective

The goal of this task is to annotate images containing military units to train an object detection model. Each image should be labeled with **bounding boxes** around relevant military objects, using one of the five defined labels. Annotations must be exported in **COCO-style JSON format** and committed to the `labels/` directory on the `labels/` Git branch.

Each student is required to annotate **50–75 images**.

Label Definitions

Label Name	Description
<code>military_tank</code>	Armored, tracked vehicle with a turret or cannon.
<code>military_person</code>	Any individual in military uniform or gear (standing, walking, or seated).
<code>armored_carrier</code>	Armored transport vehicle for troops or cargo (e.g., APCs, IFVs).
<code>air_fighter</code>	Jet aircraft designed for air-to-air combat (e.g., F-16, MiG-29).
<code>bomber</code>	Aircraft designed for bombing ground targets (e.g., B-2, Tu-160).

Annotation Rules

- ✓ Draw **tight bounding boxes** around the full object, even if partially occluded.
- ✓ Label **each instance separately**, even if multiple appear in the same image.
- ✗ Do **not** label civilian vehicles, buildings, or unrelated aircraft.
- ✗ Skip objects that are **less than 30% visible** or not confidently identifiable.
- ▬ For distant or blurry aircraft, label based on shape and context (fighter vs. bomber).
- ▬ For visible personnel inside vehicles, label **both** the vehicle and the `military_person` if clearly visible.

✂ Tool & Format

- Tool: Label Studio, CVAT, or custom Streamlit tool
- Export format: **COCO-style JSON**
- Filename: `yourname_annotations.json`
- Git: Commit exports to the `labels/` folder on the `labels/` Git branch

⚠ Edge Case Handling

Scenario	Action
Soldier mostly hidden behind vehicle	Skip unless more than 30% is visible
Vehicle turret only visible	Label as <code>military_tank</code> if clearly part of one
Jet flying at high altitude	Use best guess (<code>air_fighter</code> or <code>bomber</code>)
Troops inside open vehicle	Label both <code>armored_carrier</code> and <code>military_person</code>
Blurry or uncertain object	Skip or label as comment for review

✅ Quality Checklist

- ☐ Bounding boxes tightly enclose each object
- ☐ Correct label applied based on definitions above
- ☐ Exported in COCO JSON format
- ☐ Filename follows naming convention
- ☐ Committed to `labels/` Git branch

Consistent labeling leads to powerful models. Let's make every box count.