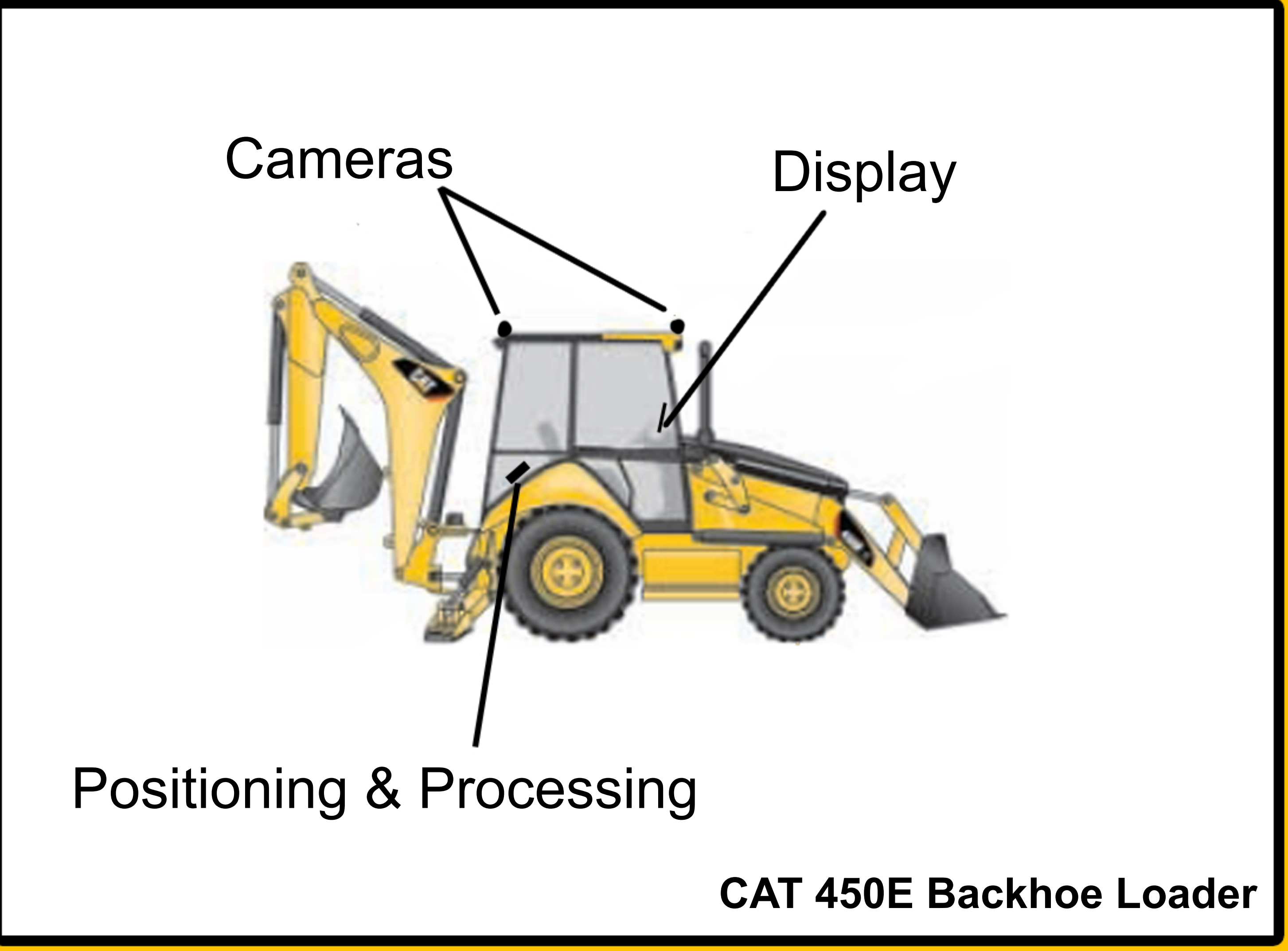


# Product Features and Information

# IPRO 355: EVS for Construction Safety



### Product Features

- Three dimensional utility and hazard display
- Image from camera perspective
- One meter margin of error
- GPS and onboard local positioning system
- Tool sensor will inform operator of tool's proximity to hazards

### Optional Future Features

- Automatic shutdown will prevent operator from operating equipment in hazard areas
- Video recording unit



### Code of Ethics

#### Overarching principle

Our team will develop and design an augmented reality safety system that provides accurate, reliable and timely information. We are dedicated to providing critical data to construction persons in order to save lives and prevent accidents.

#### Canons

- 1) Law and Regulations:** We will comply with all intellectual property and regulatory laws to the best of our abilities.
  - Pressure: To complete the work and building the prototype on time.
  - Risk: Exposing the project to unnecessary liabilities due to the legal and regulatory research being insufficient due to time restrictions.
- 2) Contracts:** We will abide by all the terms of the contracts and all non disclosure agreements that apply to our project.
  - Pressure: Needing assistance from third parties for equipment operation and prototype building.
  - Risk: Violating non disclosure agreements.
- 3) Professional Codes:** We will abide by the construction industry professional codes as pertaining to safety equipment.
  - Pressure: Create the most affordable prototype possible.
  - Risk: The product not providing any real value.
- 4) Business and Industry Standards:** Performing to the highest ethical standards of the construction and safety industry, keeping in mind that our product saves lives.
  - Pressure: To produce a product that is robust.
  - Risk: The inability to efficiently test the product due to its many functions.
- 5) Community:** The team will thoroughly test and ensure the product provides the best safety and most value to the communities in which our product is used.
  - Pressure: Get product to market as soon as possible.
  - Risk: Product is not thoroughly tested and does not provide the intended value.
- 6) Personal Relations:** The team will respect each other's opinions and completed work.
  - Pressure: To have a team and sub teams with a significant amount of autonomy.
  - Risk: Sub teams not understanding each other's work.
- 7) Moral Values:** No team member will be required to do anything that violates their own personal, religious, moral, or ethical beliefs.
  - Pressure: The need to work outside of class.
  - Risk: Working on days that some consider religious holidays.

### Case Study



**Place:** Ghislenghien, Belgium  
**Time:** July 30th, 2004  
**Cause:** Construction workers punctured gas line  
**Result:** 24 dead and 120 injured  
 \$42 million in compensation claims paid to date  
 Ongoing criminal and civil liability

### Problem Statement

Safety holds a position of utmost importance in the construction industry. Despite all safety measures, 5,000 deaths occur each year in the construction industry and \$250 million are lost due to worksite utility accidents.

### Objective

Our team will develop and design an enhanced vision safety system that provides accurate, reliable and timely information. We will market, distribute, and service the product in a manner that provides the most value to our shareholders.

### Methodology

**Technology Team:** Research and analyze appropriate technology for the product. Design a proof of concept prototype.  
**Business Team:** Research and design business model. Forecast sales, expenses, and cash flow.