

CBL4UAV Photogrammetry

Phase 3

Act

2022

During Engage phases, moved from an abstract Big Idea to an actionable challenge proposal considering your personal aspects and discipline. In the second phase. Investigate, considering your challenge proposal, you conduct your research activities and concluded them for an actionable solution. Now, it is time to start your solution.

- Phase input: Challenge proposal, Investigation document, assessment rubric
- Phase output: Implementation and findings sharing

In the last phase, evidence-based solutions are developed and implemented based on findings achieved through Engage and Investigate phases. In this phase, results are evaluated and students combine the intention of making a difference or innovation with the experiment of knowledge proficiency over the big idea. This phase is composed of three main steps solution concepts, solution development, and implementation.

Step 7: Solution concept

The investigation phase is accomplished by the definition of a concrete foundation for the solution. In the current step, you are requested to design your plan to follow the solution. You are highly recommended to draft a concept map here which can help you to manage all your thoughts and guide you in the next steps. Concept maps are methods to visually present information and you can use diagrams, tables, charts, graphs or so for the purpose. You can study more on concept maps here:

[Concept Mapping – Learning Strategies Center \(cornell.edu\)](https://www.cornell.edu/learning-strategies-center/concept-mapping/)

Outcome

- a) Your information and reflection
- b) Your solution concept document (maybe a concept map)

Format

Max 1 A4.

Note: Always note that you can modify your challenge proposals and previous documents based on your findings during your research trajectory.

Step 8: Solution Development

Discuss your solution concept internally with your team members and also with your supervisors and stakeholders. While the solution concept is approved in the previous step, you need to start with development. Based on the situation, you need to implement a code, set an experiment, conduct a questionnaire, or make a prototype. Experiences during this step might force you to the previous phases for revising your challenge proposal or your concept map.

Outcome

- c) Your information and reflection

- d) Revise and restudy your Challenge proposal and your solution concept, and modify them if needed
- e) Develop your solution

Format

No delivery is needed

Step 9: Solution Implementation and Evaluation

While the solution is mapped, developed, and modified, you need to continue with implementation. In this step, you will also evaluate your solution, measure the outcomes, reflect on the results, discuss the findings, and report the failure or success process.

Assignment 3: Act

Outcome

- f) Your information and reflection
- g) Conduct the solution activity based on your concept plan and development
- h) Try to align your implementation with your considered perspectives and objectives
- i) Reflect on your findings

Format

Max 30 minutes presentation.

Assessment

Phase 1: Engagement rubric

No.	Criteria	keys	Description	Score	Grade
1	Solution Concept	Organization	Is t well organized and provides a clear big picture of the solution Does it include concepts that are suitable for the challenge and the focused topic and aspects The concept should be feasible within the time and available recourses	2	
		Thinking and ideas			
		Feasibility			
2	Solution Development	Solution Construction	The research is logically constructed which means it includes a clear motivation for the selected methods.	2	
		Solution structure			

			A logical, well-structured, and doable flow of processing steps from input data to information products is observable		
3	Solution Implimentation	Comprehensive	The report includes a list of data, recourses, software, and other items used. The designed and developed solution is completely and correctly implemented Reflection and personal perspective analysis are provided	2	
		Complete			
		Correct			
4	Presentation	Content	All the presented information is in line with the challenge proposal and designed and developed solution.	4	
		Academic skills	The academic skills in the case of presentation like titling, citation, graphical presentation, timing, and so on are correctly handled.		
		Discussion	Solution concept and results as well as findings are clearly presented and discussed. The advantages and limitations of the effort are also mentioned and future plans and prospects are pointed		
		Questioning	Reasonable and satisfying answers and reflection are provided		