

### Task 1: Python Programming (40%)

Point	Detection using Binary Classifier (10%)	Detection using Object Detector (10%)	Navigation and Collection (10%)	Visualisation, Code Style, Readability (10%)
0 (%)	There is no attempt to implement the binary classifier.	There is no attempt to implement the object detector.	There is no attempt to implement the navigation and collection tasks.	There is no code submission or just a submission of a given template.
+2(%)	Perform basic data loading and manipulation on the given training dataset.	Construct a proper dataset for training the object detector. This may involve either automatic or manual object annotation.	The models can be loaded from a local disk including both architecture and trained weights.	There is a "README".txt file that provides instructions for running the program. The functionality of files in the Zip file is also described in the instructions.
+2(%)	Build a binary classifier using selective backbone networks. The architecture may be changed considering both model efficiency and efficacy.	Build an object detector using a selective detection framework. The architecture may be changed considering both model efficiency and efficacy.	The models can detect the target object from the image with a reasonable accuracy.	The code contains detailed comments for essential steps and key algorithms. You may use Markdown to provide a detailed description.
+3(%)	Train the binary classifier using the given dataset, and trained models are saved to the local disk. You may either training from scratch or fine-tuning the pre-trained model.	Train the object detector using the prepared dataset, and trained models are saved to the local disk. You may either training from scratch or fine-tuning the pre-trained model.	The program can reasonably move along target objects, and it can handle the scenario where no target object is detected.	The program is well structured using function, class, and module whenever it is appropriate. The variables, functions, and classes are properly named following consistent guidance.
+3(%)	Set the hyper-parameters properly, the model can converge. The efficacy and efficiency are evaluated and satisfactory.	Set the hyper-parameters properly, the model can converge. The efficacy and efficiency are evaluated and satisfactory.	The program can successfully navigate through the scene and capture all target objects (11 in total).	The data and results are visually presented. The visualisation is appropriate and not overwhelming, which demonstrates the key results of your solution.
Mark:				
Subtotal:				
Individual Feedback & Comment:				

## Task 2: Report Writing (50%)

Range	Introduction and Method (10%)	Result and Discussion (10%)	Robot Design (10% x 2)	Format, Writing Style, Presentation (10%)
0	The report does not include an introduction and methodology section.	The report does not contain a result and discussion section.	The report does not contain a robot design section.	There is no report submission.
1-2 (%)	The introduction is brief and does not cover the necessary information. Some limited details on a proposed method. No clear indication there is actual implementation.	Some quantitative results are given, however, they need more detail and need to be completed. The results may also appear questionable. A very brief discussion that simply reiterates the material presented in previous sections.	There is a very basic design, but many key components and configurations of the robot system are missing.	Poorly organised report. Inadequate style and grammar. Poor referencing, tables, and diagrams. Some expected material was omitted. Barely reproduces existing literature.
3-4 (%)	The introduction contains the basic required information, but it is not well written. There are basic details required for the proposed methodology, and evidence of an attempt to implement a solution to the problem. The solution has a certain logic to it.	Some reasonable quantitative results are presented. Although this section may be incomplete, the report clearly shows an understanding of what is missing. The discussions provide additional critical analysis, however, it is still somewhat superficial.	There is a reasonable design with essential components and configurations, but many key challenges in the real-world scenario are not considered.	Diligent presentation of work done with few flaws but lacking in any critical appreciation of the subject
5-7 (%)	The introduction is reasonably well written, and all required information is presented. The proposed method is clearly presented, and the relevant steps/concepts are explained with sufficient detail. The solution is sensible and shows evidence of understanding.	Quantitative results are provided, with well-presented results. There is sufficient detail, and the report shows a clear presentation of the experimental results. The discussions include a good critical analysis which shows some understanding of the findings in the work. Shows some suggestions for future work, but not well-considered.	A feasible solution is proposed which has the potential to be implemented and deployed in a real-world scenario. The key challenges in the real-world scenario are considered.	Well-organised report with a high standard of grammar, referencing etc. A highly satisfactory piece of work, but with identifiable unfulfilled potential. Sensibly organised subdivided material
8-10 (%)	The introduction is very well presented, covers all required information, and provides insight into the problem. The proposed method shows a clear understanding of the material. The reasoning behind model selection and parameters is well presented. There is deep, critical reasoning behind the choices.	A well-presented and thorough evaluation. The results provide a clear insight into the experimentation proposed within the methodology section. A clear understanding of the results is evident. The critical analysis shows a clear understanding of the materials and findings. Shows well-considered suggestions for potential improvement.	A well-designed robot system is presented which also contains technical innovation. Efficiency and robustness are thoroughly considered and backed up with literature.	Flawless grammar. Relevant, clearly presented, valid materials. Report written to a professional standard which could lead to a publishable journal paper with appropriate editing and minor revisions. Independent writing exceeding expectations
Mark:		x 1		x 1
Subtotal:				
Individual Feedback & Comment:				