CAI3034N Autonomous Mobile Robotics
MARKING RUBRIC
ASSIGNMENT 2
Assignment Weighting (30%)

LEARNING OUTCOME	MARKING CRITERIA	SCALE					YOUR MARKS/COMMENTS
		Fail (0-49)	3rd Class (50-59)	2nd Lower Class (60-69)	2nd Upper Class (70-79)	1st Class (80-100)	
CO2: Critically evaluate the range of possible applications for mobile robotic systems including requirements for industrial, service and social robotics, human-robot interaction, robot vision and sensing, and ethical and economics analysis of robot. (C5, PLO7)	Hardware and algorithm development (40%)	• Improper hardware configuration and algorithm development. • No functional obstacle avoidance. • Fail to detect metal and provide both visual and auditory feedback.	• Basic hardware configuration and algorithm development. • Limited obstacle avoidance; frequent collisions. • Rarely detects metal or fails to provide meaningful visual or auditory feedback.	• Adequate hardware configuration and algorithm development. • Basic obstacle avoidance achieved; occasional errors • Detects metal inconsistently or provides only one type of feedback (visual or auditory).	• Good hardware configuration and algorithm development • Successfully avoids most obstacles; minor errors in complex scenarios. • Detects metal accurately in most cases and provides both visual and auditory feedback, with only minor issues.	• Excellent hardware configuration and algorithm development. • Successfully navigates complex courses with zero collisions. • Successfully detects metal with consistent accuracy and provides both visual and auditory feedback without errors.	
	Documentation (50%)	• Content is inaccurate. Information is incomplete, inaccurate, or not presented in a logical order, making it difficult to follow. • Do not provide details about sensors, technique used in navigation, obstacle avoidance, and metal detection. • No results and discussion.	• Content is either questionable or incomplete. Information is not presented in a logical order, making it difficult to follow. • Little explanation on sensors, technique used in navigation, obstacle avoidance, and metal detection. • Results are presented but poorly discussed.	• Content is accurate but some required information is missing and/or not presented in a logical order, making it difficult to follow. • Reasonable explanation on sensors, technique used in navigation, obstacle avoidance, and metal detection. • Results are presented with reasonable discussion.	• Content is accurate but some required information is missing and/or not presented in a logical order, but is still generally easy to follow. • Good explanation on sensors, technique used in navigation obstacle avoidance, and metal detection. • Results are presented with good discussion.	• Content is accurate and all required information is presented in a logical order. • Excellence explanation on sensors, technique used in navigation, obstacle avoidance, and metal detection. • Results and discussion are very well presented which give the reader important information that goes beyond the obvious or predictable.	
	Code quality (10%)	• Very poor program structure and without code comments.	• Poor program structure but with some code comments.	• Clear program structure and appropriate comments.	• The program code is well structured and commented.	• The program code is efficient, well structured, and commented.	

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