/20

Project Grading Sheet

For Groups of Two to Three Students

Individual Marks **(3 Marks)**

Students should demonstrate complete understanding of any part of the code/HW regardless if they have written it themselves or their partner(s). Student must answer any question related to the code/HW or explain portions of the code when asked to.

Student Name _____ _____

Student Name _____ _____

Student Name _____ _____

Software Part **(9 Marks)**

√		Grade
	EEPROM	
	EEPROM initialization (**Correct** values show up inside the EEPROM window) with proper termination method or length stored	/0.5
	Code can correctly retrieve characters from EEPROM	/0.5
	PICRYPT	
	Key 3 is correctly generated	/0.5
	Key 4 is correctly generated	/1
	The encrypt algorithm gives a correct output for any given key supplied by the examiner	/1
	The decrypt algorithm can decrypt the output of the encrypt algorithm (even if the output of the encrypt algorithm is wrong, the decrypt algorithm can correctly do the reverse operations and retrieve the original message	/0.5
	Rotate Subroutine correctness and Timing (Competition) If rotate subroutine produces correct output results _____ for the following input _____, then **proceed with timing the rotate subroutine** • Top 25% of students will get 1 • Second 50% of students will get 0.75 • Slowest codes will get 0.5 • No codes or non-working codes 0 Collusion where groups agree to submit similar codes will get everyone a zero	/1
	H/W Programming	
	USART Code (Transmitter and Receiver ends)	/0. 5
	LCD Code (Receiver end)	/0. 5
	Using H/W timer for 7-Segment Multiplexing	/0.5
	Processing buttons correctly (e.g. debouncing in HW/SW), 7-Segments and log functionality	/0.75
	Proper SW techniques and Documentation	
	Using proper coding techniques (modular programming, cblocks, macros, code reuse when possible, code safety, interrupts)	/0.75
	Functional comments	/1

Hardware part **(3 Marks)**

√		Grades
	The circuit is properly connected with correct H/W design choices, the wires are tidy	/1
	The buttons when pressed respond smoothly and quickly (no delay, no multiple attempts for the button to work)	/0.5
	LCD is working (lights up, something shows on the screen)	/0.5
	Demonstrate full functional code	/1

Project Report **(5 Marks)**

Report Formatting		
	Page numbers, Sections and Subsections, Figure and Table numbering and Captions, correct spacing and text justification, professional fonts	/1
	The report is presented in sound technical language	/0.5
Report Flow		
	Abstract: concise summary of the purpose of the report, the data presented, and the functionality	/0.25
	Introduction and Problem Statement: detailed specification of the problem to be solved	/1
	Implementation: reporting how student managed to solve what was presented in the problem statement. Design details and modeling (FSM, flowcharts, circuit diagram in proteus, figures of the actual H/W ... etc.). System/peripheral configuration should go here as well as justification. Alternatives, tuning, trial and error? briefly discuss obstacles and challenges and how you attempted to solve them	/1
	Testing and Observations: How the student tested and validated the system? Should describe how you performed your observations. Discuss the experiment's results. Should mention if these were the results expected or not. And why?	/1
	Conclusion: brief summary of the project. Conclusion should be very similar to the abstract, except with more emphasis on the design and results of your project	/0.25

Bonus **(2 Marks)**

	Variable size message padding	/0.5
	Retrieving (from EEPROM), encrypting, and transmitting variable size messages	/1
	Processing variable size messages at receiver end and displaying it on LCD	/0.5