



HASAN KALYONCU UNIVERSITY

Electrical-Electronics Engineering Department

EEE 499 Project Proposal Form

Part I. Project Proposer

Name Last name	M Sadettin Özyazıcı	E-mail	msadettin.ozyazici@hku.edu.tr
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Part II. Project Information

Title of the Project	Single rotor drone				
Maximum Cost of implementation (TL)	7000	Conceptual Design Dead Line	in 6 weeks	Prototype Production Deadline	in 13 weeks
Standards and licenses to be used in the project. example; IP65, IEEE, APACHE, MIT, etc.	IEEE standards				
Project Description					
This project requires a design of a single rotor drone with flaps that are used for navigation. Body of drone will be selected from the available materials. Four flaps will be added to the design. Using the signals coming from the sensors (accelerometer, gyroscope, ultrasound etc.) flaps will be controlled and the drone will be navigated.					
Project Justification					
Novelty New flap design and directing air through a newly designed hollow channels					
New aspects	Writing controlling software is completely new.				
Complexity	Navigation and control of flaps in the single rotor drone is much more complex than the four rotor drone.				
Challenging problem and issues	Design of body, flaps and software controlling flaps are challenging.				
Related electrical-electronics science fields and subfields	Project is related electronics, wireless communication and control				
Tools	Single rotor, sensors (accelerometer, gyroscope, ultrasound), microprocessor, body, flaps, servos and custom written software. Documents and other materials will be provided by lecturer.				
Risk involved Navigation with new flaps can be risky and more control software may be needed.					
Potential problems and alternative solutions	Design of flaps and body and also writing control software are potential problems.				

Minimum work required	20 hours per week for 14 weeks with three (3) developers.
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