

# Design of a launch system for a scientific fix wing UAV without undercarriage

Document:

Budget

Author:

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Director /Co-director:

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Degree:

Electrical + Mechanical engineering degree

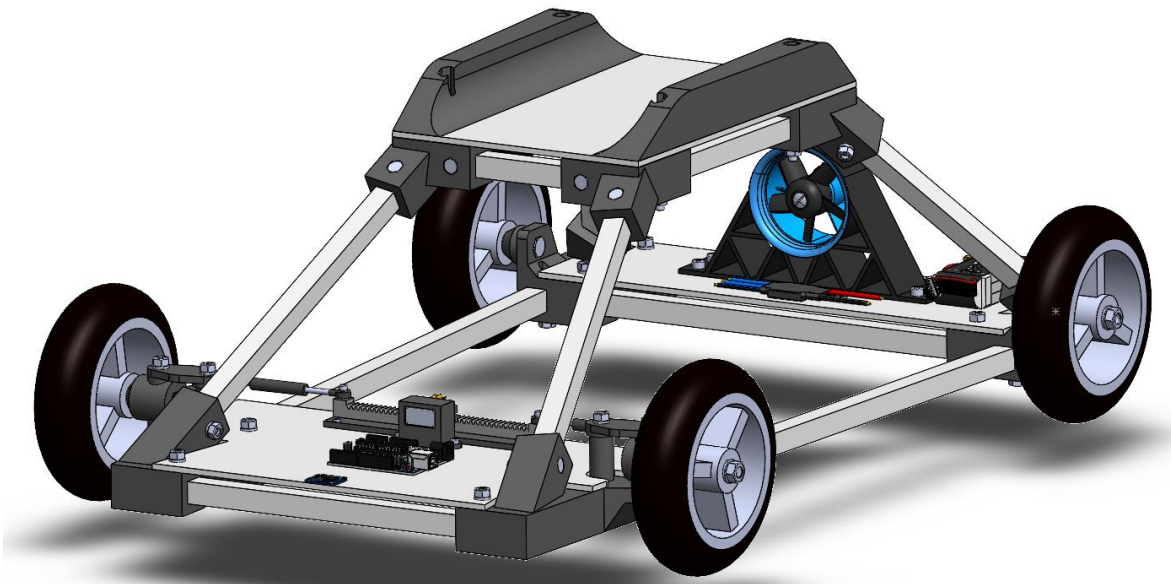
Convocatory:

Spring

**FINAL DEGREE PROJECT**



## Dolly Vehicle Prototype for a Fix Wing UAV Take-Off





Block Number	UM	Block Description	Quantity	Price	Amount
<b>Chapter 01</b>		<b>Design and construction</b>			

01.1	UN	Detailed study and design of the dolly.			
		This section includes the engineering hours dedicated to the creation of:			
		- Detailed study of existing models	10	30.00	300.00
		- Determination of objectives and requirements of the final model	10	30.00	300.00
		- Chassis design and structural study.	55	30.00	1650.00
		- Steering system design	30	30.00	900.00
		- Heading system design and programming	50	30.00	1500.00
		- Components Selection	10	30.00	300.00
		- Final model design	25	30.00	750.00

**Block Total**

5.700.00 €

01.2	UN	Production and Assembly of all the parts that make up the dolly			
		This section includes the hours dedicated to :			
		- Production of all the 3D printing parts	150	10.00	1500.00
		- Production of the aluminum bars	2	25.00	50.00
		- Production of the PMMA base	7	25.00	175.00
		- Assembly of the dolly components	8	25.00	200.00
		- Wiring of the electrical components	1	25.00	25.00
		- Start-up and commissioning	10	30.00	300.00

**Block Total**

2.250.00 €

*Chapter Total*

**7.950.00 €**



Block Number	UM	Block Description	Quantity	Price	Amount
<b>Chapter 02</b>		<b>Material</b>			

01.1 UN Material required for the dolly prototyping.

This section includes all the material required for the dolly model (shipping costs included) :

- Aluminum hollow square bar 15mm x 15mm	7	6.00	42.00
- PETG filament for 3D printing	2	20.99	41.98
- PMMA square cut	1	30.00	30.00
- Arduino UNO	1	24.20	24.20
- Accelerometer/ Magnetometer LSM303DLHC	1	7.99	7.99
- Servomotor MG90S	1	2.99	2.99
- ESC Aeolian XP-30-I	1	14.31	14.31
- Lipo Battery Tattu 2300 mAh	1	25.99	25.99
- Ducted Fan 4500 KV-QF2611	1	29.79	29.79
- Wires and connectors	1	5.00	5.00
- Steering Levers	2	5.91	11.82
- Wheels	4	13.52	54.08
- Hardware	1	13.00	13.00
- Steering bearings 12mm x 7mm x4mm	1	4.00	4.00

**Block Total**

307,15 €

*Chapter Total*

**307,15 €**



## **BUDGET SUMMARY**

### **BRAKEDOWN BY CHAPTER/ SUBCHAPTERS**

### **IMPORT**

CHAPTER	01	Design and construction	7.950,00€
CHAPTER	02	Material	307,15 €

**Total budget:** 8.257,15 €  
(Taxes not included)

#### Form of Payment:

The Client agrees to pay the supplier the amount specified in the quotation, as agreed.

- 20% Upon acceptance of the budget.
- 40% Upon start design and delivery of material.
- 30% Upon validation of the prototype.
- 10% 60 days after validation.



Budget Nº: 190506

June 11, 2021

<b>Concept</b>	<b>Amount</b>
TOTAL EXECUTION	8.257,15 €
	Accumulated: 8.257,15 €
21,00 % Taxes.	1.734,00 €
<b>TOTAL EXECUTION (Euros):</b>	<b>9.991,15 €</b>

The amount of the project execution is:

**NINE THOUSAND NINE HUNDRED AND NINETY- ONE EUROS AND FIFTEEN CENTS**



## **SPECIAL CONDITIONS:**

This offer is subject to the following special conditions:

### **1- Vocabulary**

The company to which the budget is addressed will be referred to from now on as: " the Customer ".  
Aleix Surroca, an engineer at ESEIAAT, is referred to here as " the Supplier ".

### **2- Conditions**

Article 2.1: The work done by the Supplier, are based on the information provided by the Customer.

Article 2.2: The Supplier agrees to comply with the needs agreed with the Customer in accordance with current regulations.

Article 2.3: The Supplier agrees to deliver to the Customer, the documentation related to the project.

Article 2.4: The Client agrees to provide all the documents and information necessary for the correct development of the project. The reliability of this type of document is your responsibility. Every aspect omitted in this information is beyond the scope of the project.

### **3- Payment**

Article 3.1: The Customer agrees to pay the Supplier the amount specified in the offer, in accordance with the manner specified. Unless otherwise stated at the time of commissioning. Acceptance of the offer implies the following payment terms: 30% on acceptance; 40% at the end of each chapter; 30% 60 days after delivery.

Article 3.2: The validity of the amount of the offer is 30 days from acceptance.

### **4- Guarantees**

Article 4.1: Warranty against defects in the material or in the execution of the work for a period of one year from the original date of receipt. The warranty does not include, under any circumstances, replacement for material damage due to improper application, misuse, abnormal operating conditions and lack of proper maintenance.



BUDGET ACCEPTANCE

DATE

SIGNATURE AND STAMP

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