



**UNIVERSITAT POLITÈCNICA DE CATALUNYA  
BARCELONATECH**

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**Escola Superior d'Enginyeries Industrial,  
Aeroespacial i Audiovisual de Terrassa**

Study of the Boeing C17 Globemaster III  
structure and reproduction of a 1:50 scale  
model: **BUDGET**

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Final Degree Project

Grau en Enginyeria de Vehicles Aeroespacials

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# 1 Analysis of the budget

In this document, the budget regarding the final degree project: Study of the Boeing C17 Globemaster III structure and reproduction of a 1:50 scale model will be presented and analysed.

The next two tables will indicate the individual prices of the features regarding the scale model and the inverted hours to achieve the result:

Element	Price
<b>Software: SolidWorks</b>	UPC's student license
<b>Wooden pieces</b>	140 €
<b>Glue</b>	$6 \times 2,35 = 14,1$ €
<b>3mm diameter sticks</b>	$2 \times 8 = 16$ €
<b>Transport</b>	10 €
<b>Total price</b>	<b>180,10 €</b>

Table 1: Boeing C-17 Globemaster III model's economical analysis

As indicated in 1, the most expensive issue, obviously, is the wooden pieces cut by laser. As detailed in the main report, the price of the wooden pieces has been 140 and the price is 25€/h, so the machine has been working a total amount of 5,6 hours.

The rest of the prices detailed above represent the 23% of the final price, which sums up to 180,10€.

In addition to this budget, a count of the amount of hours spent to develop the study and the scale model have been analysed. In the case that this scale model wants to be constructed, or a similar aircraft study wants to be made, it will be a great help to have a previous estimation of the amount of time and money it will take to do it. The following table describes the amount of hours needed to develop the study and the model:

Task	Hours
<b>CAD representation</b>	80 hours
<b>Scale model</b>	65 hours
<b>Total</b>	<b>145 hours</b>

Table 2: Boeing C-17 Globemaster III model's economical analysis (2)



## Study of the Boeing C17 Globemaster III

The amount of hours detailed have to be considered as budget as well, to have a total price in the case the model has to be sold or someone else wants to realise a similar project. However, the hours dedicated to the CAD representation have to be done only once. In other cases, a few hours can be dedicated to actualisation of the model, improvements or any changes that make it easier or cheaper to construct the model.



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