

AME Project – Automation of Aircraft Structural Assembly

Motivation

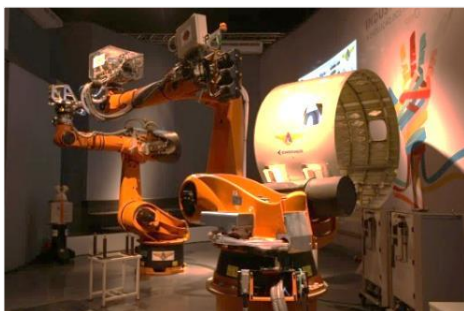
The growing demand of this products requires the application of automation technologies to reduce the lead time manufacturing process and improve the product quality.

Objective

Development of an automatic process for robotic assembly of aircraft structures and a cooperative robotic system for drilling and inserting fasteners for aeronautical fuselages.

Approach

The approach consists in two main tasks: development of an automatic process for robotic assembly of aircraft structures through a new concept robot with 12 D. O. F. to perform 6 D. O.F. movements of a fuselage section and design, build and test robotics end-effectors to operate in aeronautical fuselages. As results, both projects can be considered high innovative product and 3 patents was placed (Americas, Europa and Asia) , sharing 50% ITA and 50% Embraer.



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