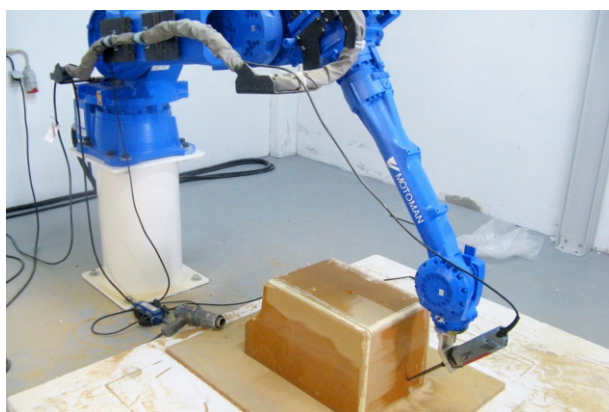
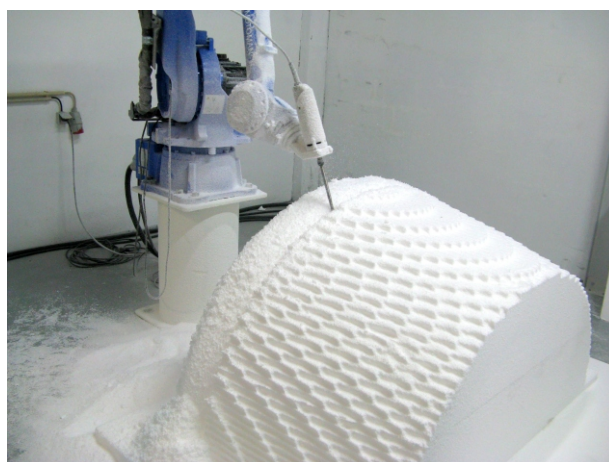
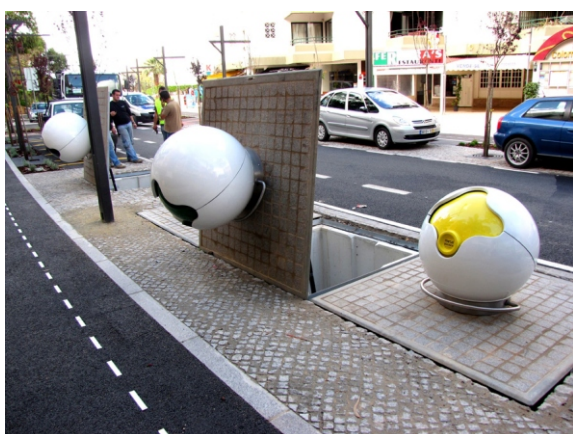




The application of the composite material of polymeric matrix, also known by fiber reinforced plastic (Glass, Carbon, Kevlar[®], etc.) is very vast and the imagination is the limit of its application. ALTO Perfis Pultrudidos, Lda., is a company who produces and assembles this type of materials. There are some processes to manufacture products with these materials and ALTO is specialist in the processes of Pultrusion, VARTM (Vacuum Assisted Resin Transfer Moulding), Infusion and Hand Lay-Up. With this newsletter, that we wish to publish every three months, we intend to show some of the applications of these materials and to contribute for alternative solutions to the traditional materials, which in many cases will be able to represent cost and quality profits. This is the first newsletter that we publish and as a company who cares for the satisfaction of its customers we thank you every improvement on our information. Therefore, we appreciate your suggestions and commentaries so that we can meet your necessities and requirements. For that you may send an email to geral@alto.pt. We have more information in ours renewed website www.alto.pt.

Recently ALTO Perfis Pultrudidos, Lda. acquired a new equipment that will re-launch the productive capacities of the company. It's a Robot that allows to scheme parts, making possible the development and the creation of moulds and complex models in diverse materials, faster and with more efficiency. From drawings 3D, in practically all formats, is generated the scheme program in CNC of the intended part. The quality and tolerance of the finishing are practically the same as the traditional equipment of scheming. Some parts already schemed by the new equipment are made from polystyrene blocks, wood, MDF, etc. that later are schemed by the robot till getting the intended forms. This tool allows us to reach a larger creative freedom and still makes possible the creation of bigger projects and with more complexity without resource external ways, which sometimes originated prohibitive budgets. Although we're still on the phase of using this equipment exclusively for models scheming, we know that the potential of this tool is not limited to this function. We still intend to explore another side that the robot has to offer, the precision cut of strengthened plastic parts. Thus being, we soon wait to bring you news on this subject as on other eventual relevant matters.





Recently ALTO Perfis Pultrudidos, Lda., collaborated with Inframoura, E.M. in the development and production for selective residues depots. It is an innovative and original project that unites color to modern design and to functionality. We have had good critics and good repercussions on this project, that's not closed yet. These new depots may already be seen applied next to the marina of Vilamoura and soon in more points of the city. The devices had been drawn by the atelier AND-RÉ Arquitectura, to guarantee the fulfillment of the functions, not forgetting the quality, ergonomics, design and finishing of the product. These depots of selective residues are manufactured in GFRP (Glass Fiber Reinforced Plastic) to guarantee its durability, and by the process of RTM, to obtain a good finishing. Its mechanism of opening is of stainless steel also assuring the resistance to the weather given the depots are applied in the publicway.

The exterior finishing of the devices is made through the white painting to enhance the good finishing of the parts and the sliding covers with color, being the paper designated selective depot in blue; of plastic and metal depot in yellow; glass depot in green and also the general residues depot in black. In short, the developed and manufactured selective residues depots by the partnership ALTO Perfis Pultrudidos, Lda. and Inframoura, E.M. brought a new perspective to the sector of residues separation, innovating in selective devices not forgetting its functionality.

ALTO was present in WTCC (World Touring Car Championship) in Oporto, in one project of the ISEP (Oporto's Superior Institute of Engineering), to present a Barchetta Bi-Place, of projection and national production. ISEP, through Eng.^{er} Luis Miranda and a former-student, Eng.^{er} Claudio Dias, presented the final version of a Barchetta with an engine of 1000cc by basis. This project was initiated in 2008, in the scope of an mechanic engineering course of this Institute, where ALTO already collaborated in a first model of this Barchetta, among others partners. The contribution of ALTO was on the development and production of the chassis in glass fiber reinforced plastic. The chassis was adapted to the requirements of a classic style and a modern chassis and in accordance with the actual regulations. This project had enormous acceptance for the presents, national and foreign public, where the polish and detail of the classic lines of the chassis were substantially mentioned.



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