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PROJECT DATA SHEET

Name of the Program	Master of Robotics and advanced Construction	
Academic Year	2018/19	
Research Studio	STUDIO III	
Tutors' names	Alexandre Dubor	Aldo Sollazzo
Title of your project	Robotic Hybrid Manufacturing	
Eventual web page link or video links	https://www.youtube.com/watch?v=7Rvnw79dHzw	
Authors of the project and personal e-mail (not the @iaac.net one)	Sebastian Voigt	Apoorv Vaish
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Abstract of the project of 1.200 characters in English

Hybrid Manufacturing is simply the senseful combination of subtractive methods and additive methods in a fabrication system and has still reached the market in the metal industry. Other industries, handling with custom big scale 3d shapes, still try to improve fabrication speed, waste reduction or surface quality by focusing on just producing with one of these methods. The combination of both methods together with a robotic system with a greater freedom of movements and reachability could save time and waste and increase the quality and accuracy of big scale objects. The freedom of a subtractive and additive process in one setup could also create the possibility of producing designs which where not feasible to produce before. Furthermore materials are needed which are hybridable, means they could be milled and also 3d-printed. In that case, thermoplastics, which are thrown as non compostable waste in a landfill are now the most interesting material for hybrid manufacturing. This project is trying to reactivate the interest to thermoplastics as an important resource for creating a new kind of manufacturing big scale products. This project tries to point out the economical relevance of a possible regional robotic setup, for fast production between unique and mass product.