

DESIGN OF HEAVY LIFTING UAV FOR AERO DESIGN 2010 COMPETITION

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Abstract. The main goal of the paper is to present the preparation of the Warsaw University of Technology team for the Aero Design competition.

This paper presents a brief description of the competition, and history of the Warsaw University of Technology team starts.

Heavy lifting models for Aero Design competition are designed for small Reynolds numbers which causes difficulties in the design. Also software used for the calculation does not always allow accurate and quick estimation of the aircrafts aerodynamic characteristics. Computational techniques, ways of solving emerging problems, and at the end the process of airplanes building will be presented on the base of models competing in the 2010 edition.

Keywords. aerodynamic computations, heavy lifting UAV, Aero Design