

**PROSES MANUFAKTUR PESAWAT UNMANNED AERIAL VEHICLE
SUNBIRD ELECTRIC GLIDER**

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Abstrak

Penggunaan pesawat tak berawak saat ini sangat dibutuhkan baik untuk keperluan militer maupun sipil misalnya untuk pencarian dan penyelamatan korban bencana alam, penginderaan jarak jauh seperti pemotretan udara, monitoring hutan, monitoring lalu lintas dan keperluan monitoring daerah perbatasan. Oleh sebab itu penulis mencoba memanufaktur pesawat UAV Sunbird Electric Glider, pesawat Sunbird Electric Glider adalah pesawat UAV yang dirancang atau dibuat untuk misi pemetaan wilayah, pemotretan udara, dan pemantauan lalu lintas lewat udara.

Metode manufaktur pesawat Sunbird Electric Glider diawali dengan data desain, pembuatan pola kit, pemotongan kit, hingga perakitan part-part kit, jenis material yang digunakan pada pesawat UAV Sunbird Electric Glider adalah kayu balsa, carbon tube untuk leading edge, serta Film Cover pada skin.

Setelah melakukan produksi, dihasilkan UAV Sunbird Electric Glider dan dievaluasi dengan bentuk desain asli dari pesawat UAV Sunbird Electric Glider dan mencari validasi perbedaan pada produksi. Dari hasil perakitan dapat disimpulkan bahwa pesawat UAV Sunbird Electric Glider sama dengan bentuk desain dari pesawat UAV Sunbird Electric Glider dengan presentase selisih 2.5 % dari wing span, 0.6 % dari fuselage length, dan 16 % dari berat keseluruhan pesawat UAV Sunbird Electric Glider.

Kata Kunci : Manufaktur, Catia, Drafting, Laser Cutting, Kit, Sunbird.

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Abstract

The current use of unmanned aircraft is needed both for military and civilian purposes such as for searching and rescuing victims of natural disasters, remote sensing such as aerial photography, forest monitoring, traffic monitoring and border monitoring needs. Therefore the author tries to manufacture UAV Sunbird Electric Glider aircraft, Sunbird Electric Glider aircraft are UAV aircraft that are designed or made for regional mapping, aerial photography, and air traffic monitoring

The Sunbird Electric Glider aircraft manufacturing method begins with design data, making kit patterns, cutting kits, and assembling kit parts, the type of material used on Sunbird Electric Glider UAV aircraft is balsa wood, carbon tube for leading edge, and film cover on skin.

After production, UAV Sunbird Electric Gider was produced and evaluated with the original design form of the Sunbird Electric Glider UAV aircraft and looking for validation of differences in production. From the assembly results it can be concluded that the UAV Sunbird Electric Glider aircraft is the same as the design form of the UAV Sunbird Electric Glider aircraft with a percentage difference of 2.5% of the wing span, 0.6% of the fuselage length, and 16% of the overall weight of the Sunbird Electric Glider UAV aircraft.

Keywords: Manufacturing, Catia, Drafting, Laser Cutting, Kit, Sunbird.