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Titolo	Introduction to the design of fixed-wing micro air vehicles : including three case studies / / Thomas J. Mueller [et al.]
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Altri autori (Persone)	MuellerT. J KelloggJames IfjuPeter ShkarayevSergey V
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Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Foreword""; ""Table of Contents""; ""Preface""; ""1. Overview of Micro-Air-Vehicle Development""; ""2. Elements of Aerodynamics, Propulsion,and Design""; ""3. Autopilot Integration into Micro Air Vehicles""; ""4. Case Study: Micro Tactical Expendable Rigid-Wing Micro Air Vehicle""; ""5. Flexible-Wing Micro Air Vehicles""; ""6. Development of Micro Air Vehicles with in-Flight Adaptive Wing""; ""7. Summary""; ""Index""; ""Supporting Materials""
Sommario/riassunto	This book presents a brief history of unmanned air vehicles that led to micro air vehicles and the student competitions that began in 1997. Elements of aerodynamics for low-aspect-ratio wings, propulsion, and the basic concepts for fixed-wing MAV design and a method for autopilot integration into micro air vehicles are included. Three different wing configurations (i.e., rigid cambered, flexible, and adaptive wings) are presented in the case studies. The purpose of this book is to help the reader design, build, and fly micro air vehicles and in this way add to the development of ever-smaller airplanes. Although MAVs can be built using inexpensive model airplane components, they

should not be flown by inexperienced pilots without the proper outdoor area, flight training, and insurance. They are very difficult to fly and very difficult for bystanders to see. In the United States, the Academy of Model Aeronautics in Muncie, Indiana, can help locate the proper flying field, flight instructors, and insurance.
