



Ultralight Aircraft of the U.S.A.



A presentation of Virtualultralightmuseum.com

Jerry M. Goffman, Curator

**These unique aircraft
can be flown with no
pilot's license, no
insurance and no
Medical Certificate.**

**Building these aircraft
takes a minimum amount
of time and few tools.
Average building time can
be less than 200 hours.**

**There are limitations
where these aircraft can
be flown, but you can
soar like an eagle for a
hour's time and Realize
an American Dream.**

A-10



Designed by Don Mitchell. Powered glider from late 70's. Aluminum wing covering. Empty weight 280 lbs. Structural limits +4 Gs and -2.3 Gs.

Aerolite 103



Assembled and ready to fly. Empty weight 250 lbs. Useful load 270 lbs. Cruise speed 55 mph and stall speed 28 mph. Structural limits are +4 Gs and -2.8 Gs.

Aeroplane XP



A 3-axis, open cockpit biplane. Empty weight 225 lbs. Payload 250 lbs. Stall speed 19 mph. 100 fpm climb rate. Load factors +6 Gs and -4 Gs.

Aerosport Raile MkII (1970)



H.L. Wood is the designer. Easy build low wing monoplane. Rockwell JLO LB-600 snow mobile power plants weighing about 56 lbs and developing 33 hp.

Aerotique Parasol



Constructed from gusset reinforced rectangular tubing. The fuselage weighs 12 lbs. Empty weight 250 lbs. Payload 270 lbs. Cruise speed 60 mph and stall speed 24 mph.

Airbike (1994)



A conventional hi-wing monoplane and the pilot rides it like a bicycle. This is a 3-Axis aircraft with removable wings. Structural limits +4 Gs and -2 Gs.

Airey-Plane



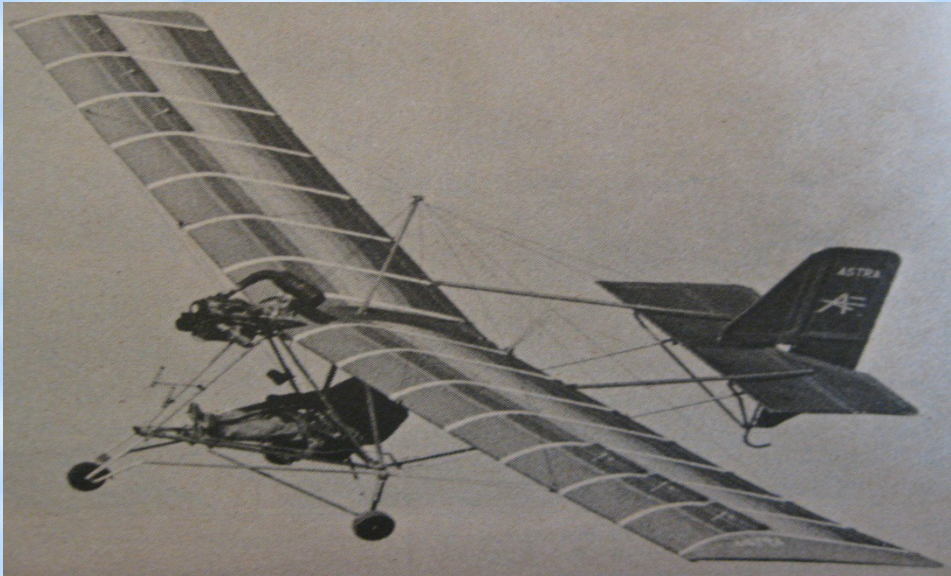
Wilbur Staib built this small airplane in limited hangar space. Two 10 hp West Bend 820 chain-saw engines. Net weight 175 lbs.

Ascender IIIB (1975)



Designed by Jack McCornack. Essentially a weight shift controlled, wire braced flying wing. Empty weight 215 lbs. Payload 300 lbs. Build time estimated at 100 hrs.

Astra (1983)



Designed by Ian Becker and Walt Todhunter. Single-seat, high-wing monoplane with 3-Axis control. Empty weight 248 lbs. Structural limits +6 Gs and -4 Gs.

Avenger



**High-wing, 3-axis
monoplane with
cable braced wing.
30 hp Kawasaki 440
engine. Empty
weight 252 lbs.**

Avion (1982)



**Designed by Bob Lovejoy.
Cruise speed 48 mph,
stall speed 27 mph. Load
factors +6 Gs and -4 Gs.
Empty weight 250 lbs.
Payload 280 lbs.**

B1RD



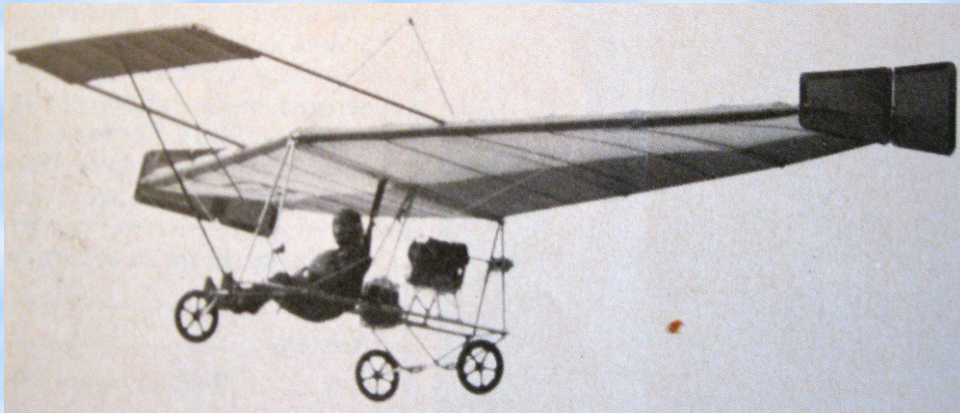
First major aircraft company to manufacture an ultralight airplane. Empty weight 220 lbs. Load factors +3 Gs and -2 Gs.

Backyard Flyer



All welded aluminum construction. Wing swings parallel to fuselage for easy transport. Empty weight 254 lbs. Rate of climb 800 fpm.

Banchee (1982)



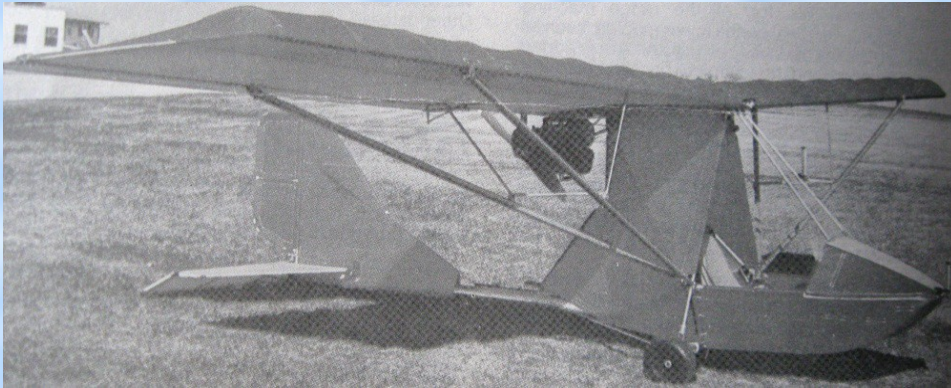
Designed by Brian Jensen, Gill Kinzie and Nick Nichols. Hi-wing monoplane with canard. Cruise speed 35 mph. Stalls at 22 mph. Empty weight 251 lbs. Structural limits +6 Gs and -4Gs.

Banty (1985)



High wing parasol type aircraft with wood and fabric construction. Estimated 500 hr. build time. Empty weight 237 lbs. Cruise speed 50 mph and stalls at 27 mph. Climb rate 400 fpm.

Beachy Breezer (1984)



Designed by Clair O'Meyer. Empty weight 245 lbs. Payload 265 lbs. Load factors +4 Gs and -3 Gs. Cruise speed 48 mph and stall speed 20 mph.

Beaujon Mach .07



Plans built. Empty weight 160 lbs. Useful load 225 lbs. Building time 60-80 hrs. Cruise speed 38 mph and stall speed 20 mph. Climb rate 350 fpm.

Birdman TL-1B (1975)



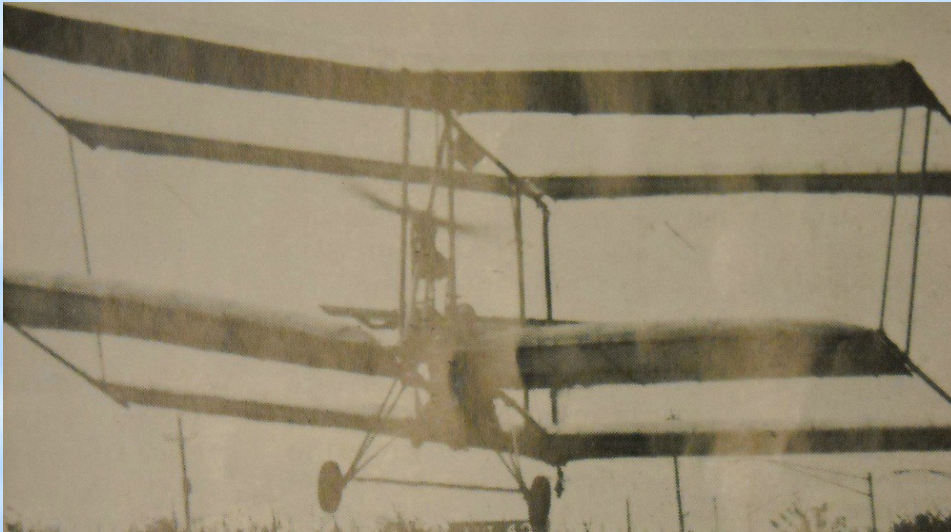
Designed by Emmett M. Talley. Aluminum and wood with 2-Axis controls. Empty weight 130 lbs. Glide ratio 15:1

Babybird DS-1 (1984)



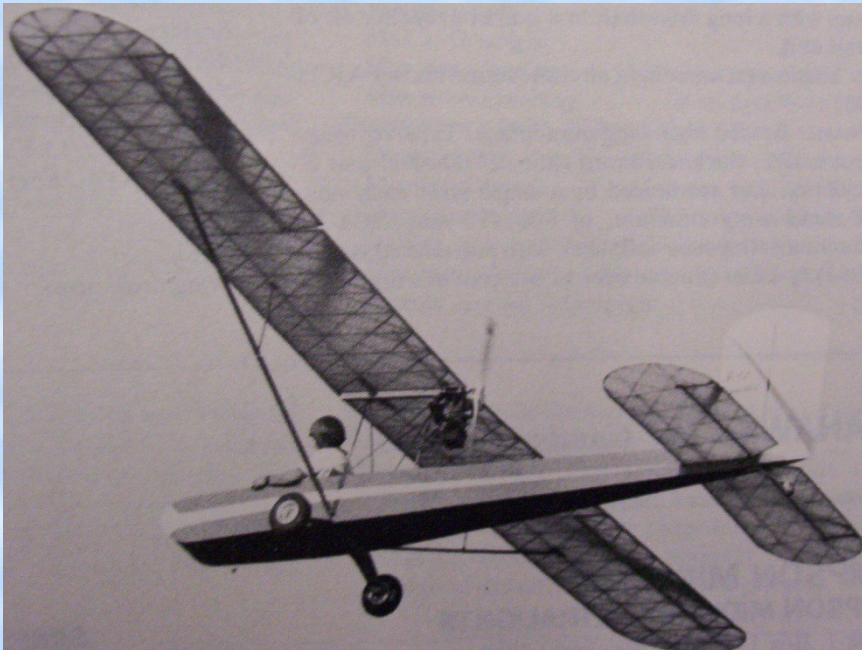
Designed by Donald Stits as World's Smallest Plane. Empty weight 250 lbs. Payload 188 lbs. Cruise speed 88 mph and climb rate of 925 fpm.

Boxmouth (1975)



Easy to build requiring local supplies from hardware and farming equipment supply stores. Wings at front and rear.

Buzzard MG-1



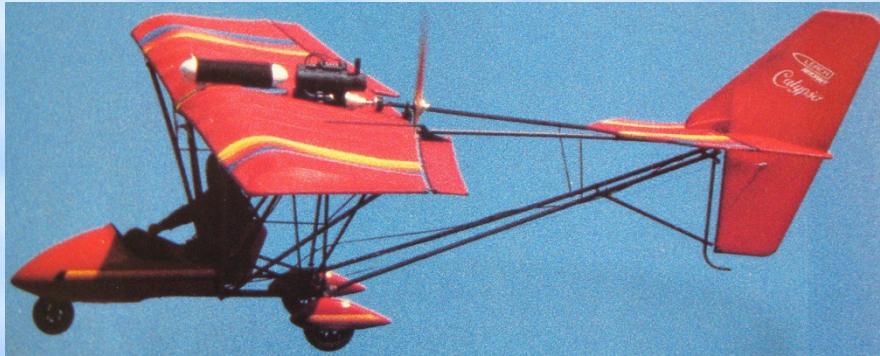
**Designed by Bud Snyder.
Essentially a motorized
glider with a parasol wing.
Empty weight 200 lbs,
Payload 275 lbs. Glide
ratio 15:1.**

Cadet



Tractor engine, aluminum tube monoplane with sailcloth wing. Empty weight 248 lbs. Payload 303 lbs. Structural limits +6 Gs and -4 Gs.

Calypso (1984)



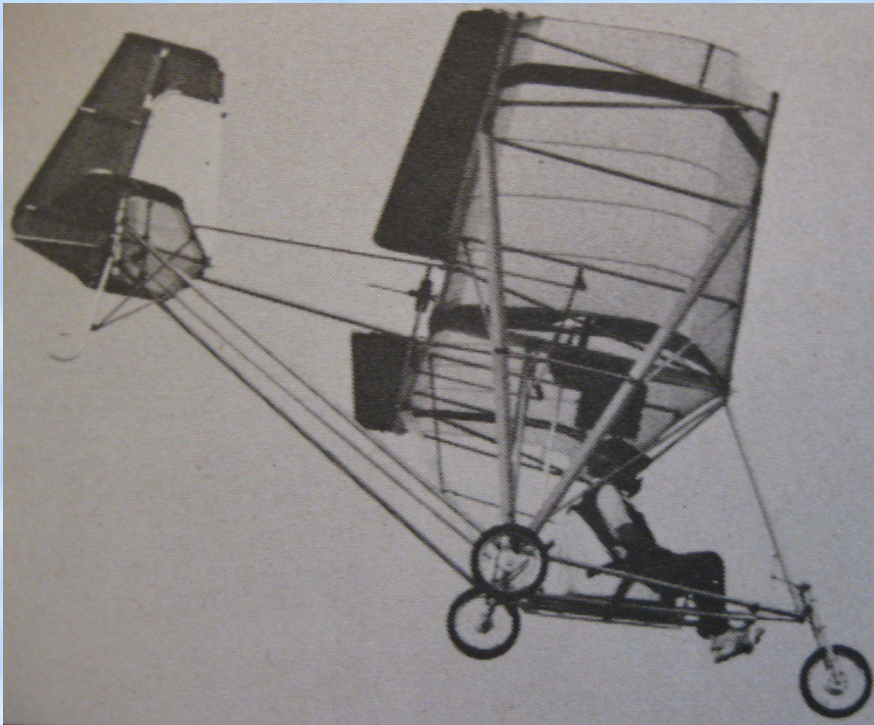
Double surface wings. Cruise speed 50 mph, stall speed 27 mph. Climb rate 800 fpm. Empty weight 278 lbs. Payload 222 lbs. Load factors +6 Gs and -4 Gs.

Challenger I



Factory built airframe and wings. Estimated 100 hours assembly time. Empty weight 235 lbs. Payload 258 lbs. Load factors +4 Gs and -3 Gs.

Chandelle Mk IV



Designed by Nile Downer. Aluminum alloy tube airframe. Empty weight 243 lbs. Payload 257 lbs. Cruise speed 40 mph and stall speed 22 mph. Climb rate 650 fpm.

Citizen Fly



**Composite materials.
Building time approx. 56
hrs. Empty weight 254
lbs. Cruise speed 55 mph,
landing speed 27 mph.
Climb rate 700 fpm.
Structural limits +6 Gs
and -4 Gs.**

Clipper (1984)



**Designed by Fred Bell.
Empty weight 252 lbs.
Payload 346 lbs. Cruise
speed 60 mph and stalls
at 25 mph. Climb rate 800
fpm. Structural limits +6
Gs and -4 Gs.**

Cloudbuster (1981)



Powered glider with tractor engine. Aluminum, and composite construction. Empty weight 248 lbs. Structural limits +4.5 Gs and -2.25 Gs. Glide ratio 13:1.

Cloud Dancer (1983)



V-tail powered glider designed by Erwin Rodger and Delura Roger. Aluminum tube, and dacron sail cloth. Empty weight 252 lbs. Payload 252 lbs. Structural limits +4.2 Gs and -2 Gs.

Cloud Rider



Low front mounted engine with tricycle landing gear and strut braced double surface wing. 3-axis control.

Cloudster (1999)



**Wood with metal struts.
Pilots legs extended
outside the fuselage to
the rudder pedals. Empty
weight 250 lbs. Cruise 50
mph, stall 22 mph, and
climb rate 700 fpm.**

Cobra (1982)



Designed by Wayne and Kerry Richter. Cruise speed 50 mph, stall speed 24 mph. and climb rate at 1000 fpm. Empty weight 235 lbs. Payload 280 lbs. Load factors +5 Gs and -3 Gs.

Condor



Designed by Buddy Head, Bob Carswell and Dave French. Climb rate 775 fpm Empty weight 245 lbs. Structural limits: +5 Gs and -3 Gs. Build time 75 hrs.

Cumulus (1996)



**Useful load 280 lbs.
Cruise speed 60 mph and
stall speed 32 mph. Load
factors +4 Gs and -2 Gs.
Glide ratio 20:1.
Approximate build time is
150 hrs.**

Diehl XTC (1982)



An amphibian in a pusher configuration. Canard with twin tail rudders. Retractable wheels. Empty Weight 240 lbs. Payload 230 lbs. Build time approximately 400 hrs.

Dream Classic



Akin to the 1907 Demoiselle. Estimated construction kit build time 100-200 hrs. Empty weight 241 lbs. Cruises at 57 mph, stalls at 26 mph and climbs at 850 fpm.

Eagle (1975)



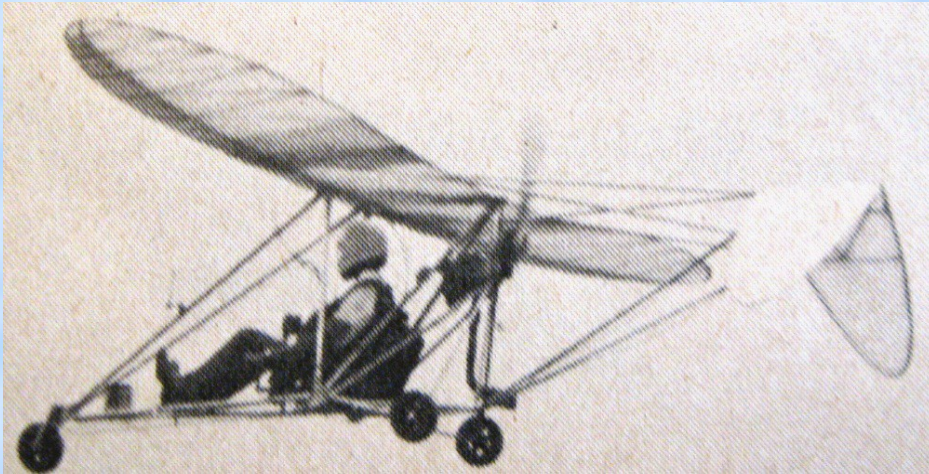
Designed by Larry Hair. Single-seat, high-wing, monoplane with canard wing. Build time is 75 hrs. Empty weight 170 lbs. Structural limits +8 Gs and -2.5 Gs.

Easy Riser (1975)



Originally flown by John Moody. Pusher bi-plane. Aluminum tube and sailcloth. Wire braced wing. Hybrid control system. Empty weight 120 lbs.

Eclipse (1983)



Designed by J. Bruce Emmons. Elliptical wing and inverted V-tail. Empty weight 165 lbs. Structural limits +9 Gs and -9 Gs. Glide ratio 15:1.

EZ-1 (1983)



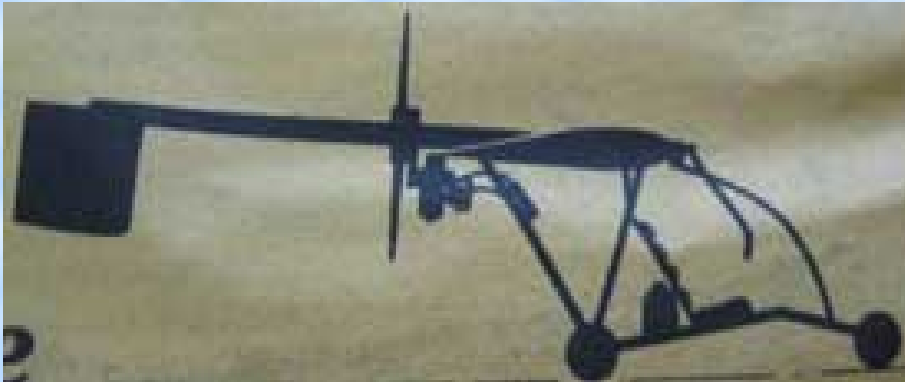
Designed by Richard Jiminez. Empty weight 234 lbs. Payload 271 lbs. Load factors +9 Gs and -4.5 Gs. Glide ratio 8:1

Falcon (1982)



Designed by Romuald Drlik as a flying wing with canard. Empty weight 250 lbs. Payload 255 lbs. Load factors +5.8 Gs and -2.9 Gs.

Firebird Flyer (1983)



Designed by Robert J. Davis and John T. Venaleck. 3-Axis single-seat, high-wing monoplane with inverted V-tail and pusher engine.

Firestar I



**Designed by Homer Kolb.
Empty weight 250 lbs.
Payload 295 lbs.
Structural limits +4 Gs
and -2 Gs. Cruise speed
53 mph and climb rate 650
fpm.**

Flitplane (1995)



**Designed by Ed Fisher.
Triangular windshield.
Fuselage comes already
welded. Estimated 150
hrs. build time from kit
and 600 hrs. from plans.
Empty weight 225 lbs.**

Flyer



**Homer Kolb designer.
Single seat, twin tractor
engines. Empty weight
185 lbs. Structural limits
+4Gs and -2.5 Gs.**

FP-303 (1984)



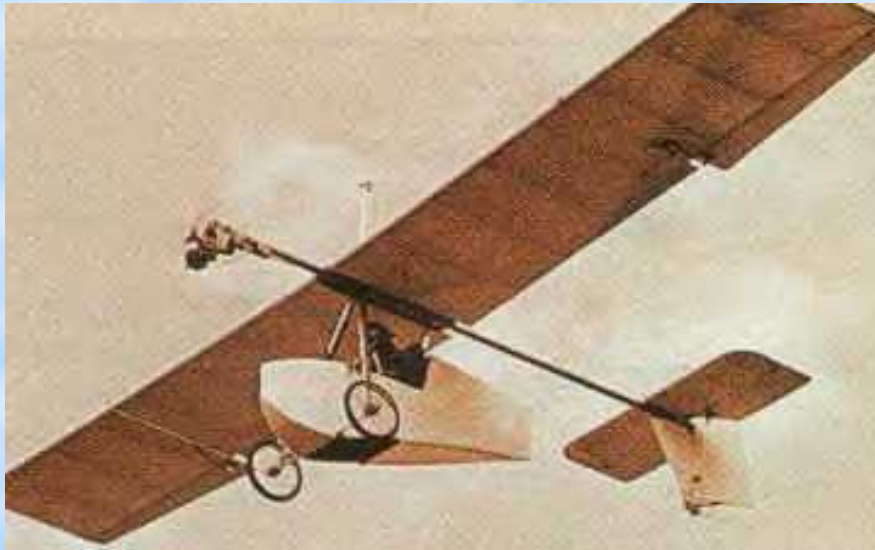
**Lexan canopy.
Construction kit requires
400 hrs. build time. Empty
weight 235 lbs. Payload
215 lbs. Structural limits
+4.6 Gs and -2.3 Gs.**

Goldwing (1979)



Designed by Craig Catto and Brian Glenn. Pusher engine with canard wing. Empty weight 220 lbs. Payload 260 lbs. Load factors +6 Gs and -4.5 Gs. Glide ratio 16:1.

Gypsy(1980)



**Designed by John Chotia.
Airframe of aluminum
tubes bolted together. 3-
Axis control. Empty
weight 165 lbs.**

Home Depot



Designed by Jack Harper from materials purchased from the Home Depot. The plane utilizes all wood construction. Uses two 10 HP Tecumseh motors.

Huber Aero 101-1 (1983)



Designed by James Huber. Fiberglass cockpit. Cruising speed 65 mph, stall speed 27 mph. Empty weight 220 lbs. Structural limits +5.2 Gs and – 2.8 Gs.

Hummel CA-2



All aluminum aircraft that requires 600 hrs. build time. Structural loads are +4.4 Gs and -2.2 Gs. Empty weight 250 lbs.

Hummer (1977)



Klaus Hill designed monoplane with pusher engine and V-tail. 2-Axis control. Empty weight 185 lbs. Payload 255 lbs. Structural limits +4 Gs and -3 Gs.

Hummingbird Sport



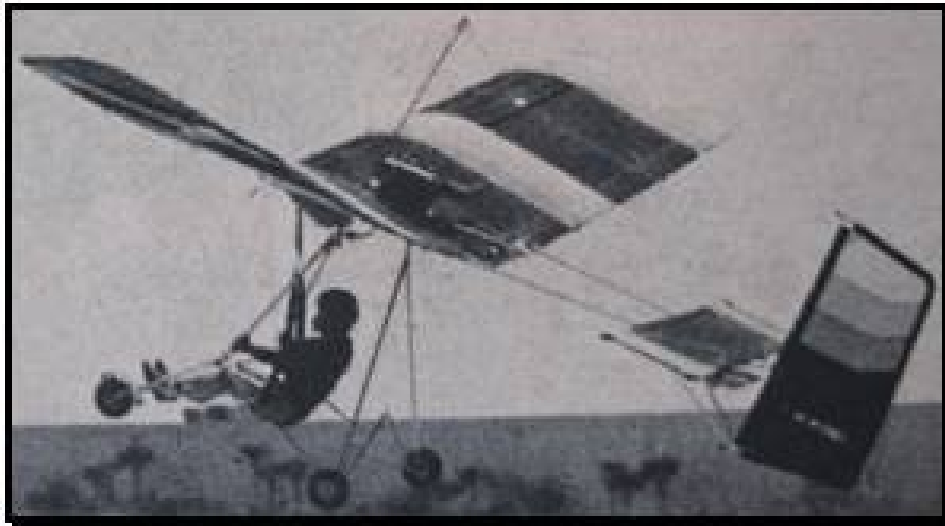
Designed by Ed Sweeney. Engines were Partner 8hp chain saws. Takeoff and landing speed was 15 mph and top speed was 55 mph. Empty weight 150 lbs.

Hurricane 103 (1991)



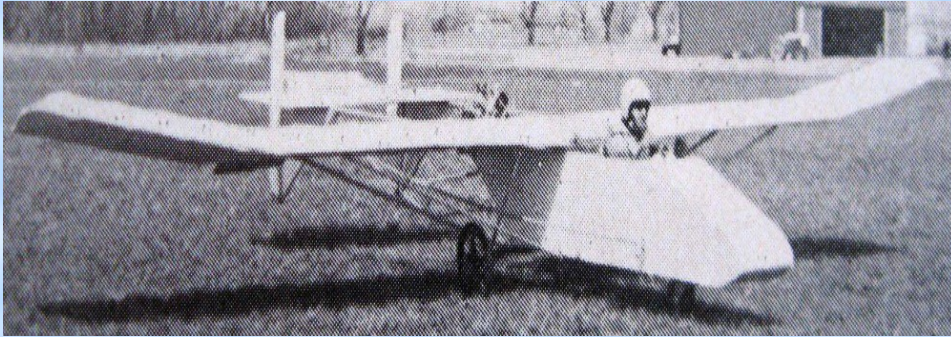
Designed by Donnie Eccker. Empty weight 249 lbs. Payload 243 lbs. Cruise speed 65 mph, stalls at 27 mph. Build time 100 hrs.

Huski/Coyote (1978)



Aluminum tubing and sailcloth. Hybrid control system. Cruise speed 43 mph and stalls at 22 mph. Climb rate 800 ft/min. Empty weight 198 lbs.

Indiana Flyer



**Designed by Lee Brazy.
Shoulder wing
monoplane. Cruise speed
42 mph and stalls at 30
mph. Empty weight 233
lbs. Payload 225 lbs.**

Invader MkIII (1982)



Designed by Nick Leighty and Rick Berstling. Single seat, mid-wing with V-tail. Empty weight 245 lbs. Payload 230 lbs. Structural limits +4 Gs and -4 Gs. Glide ratio 14:1.

Javelin I (1996)



Cruise speed 60 mph, stall speed 26 mph. Climb rate 700 fpm. Estimated build time 80 hrs. Structural limits +4 Gs and -2 Gs. Empty weight 240 lbs.

Kasperwing I-80 (1976)



Designed by W. Kasper in collaboration with Steve Grossruck. Single-surface high-wing pusher engine monoplane with hybrid control. Empty weight 160 lbs. Structural strength +7 Gs and -4 Gs.

Lazair IV (1978)



**Designed by Dale Kramer.
Twin engine. Double
surface wings produce
12:1 glide ratio. Estimated
build time of 150 hrs.
Empty weight 210 lbs.**

Lucky Stars II (2009)



**A Mark Stull design.
Empty weight 245 lbs.
Payload 255 lbs. 60 mph
cruise with a stall speed
of 28 mph and rate of
climb 600 fpm.**

Meadowlark (1984)



**Designed by Jim Higgs.
Empty weight 251 lbs.
Structural limits +3.8 Gs
and -1.5 Gs. Glide ratio
8:1.**

Mirage



**Designed by Frank Riley.
Aluminum tube and
sailcloth with tractor
engine. Empty weight 246
lbs. Payload 254 lbs.
Structural limits +5.6 Gs
and -2.8 Gs.**

Nomad/Honcho



Single seat, pusher engine high wing monoplane. Aluminum tube and sailcloth covering. Empty weight 189 lbs. Build time 120-150 hrs.

Mono-Fly



Bob Teman's design known for its toughness. Aluminum, steel and composite construction. Structural limits +10 Gs and -10 Gs. Empty weight 250 lbs. Payload 300 lbs.

Motor Bipe



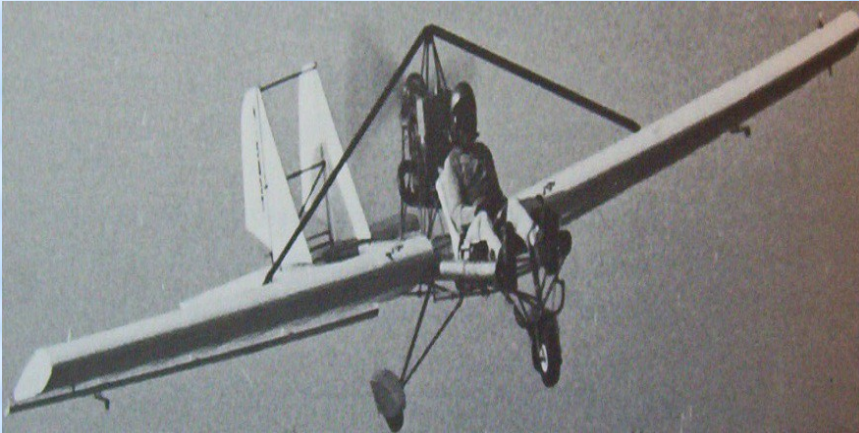
**Empty weight 225 lbs.
Cruise speed 60 mph and
stalls at 26 mph. Climb
rate 750 fpm. Estimated
build time of 175 hrs.**

Nova-1 (2007)



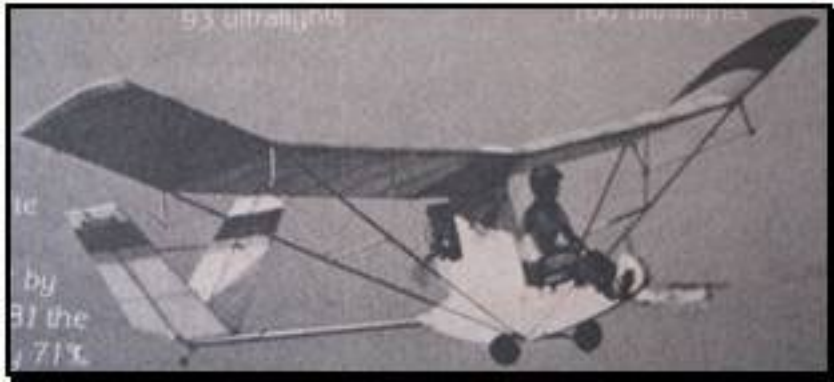
Designed by Gerald Nelson. Mid-wing monoplane of composite materials. Cruise speed 55 mph and stalls at 25 mph with a climb rate of about 500 fpm.

P-38 Lightning



**Designed by Jim Mead.
Twin boom fuselages.
Wood, tube and fabric
construction. Structural
limits +4 Gs and -4 Gs.
Glide ratio 7:1. Empty
weight 305 lbs**

Papillon



Designed by D. Paup. 22 hp Polaris snowmobile engine. Empty weight 189 lbs. Cruise speed 30 mph and stalls at approx. 24 mph.

P-Craft



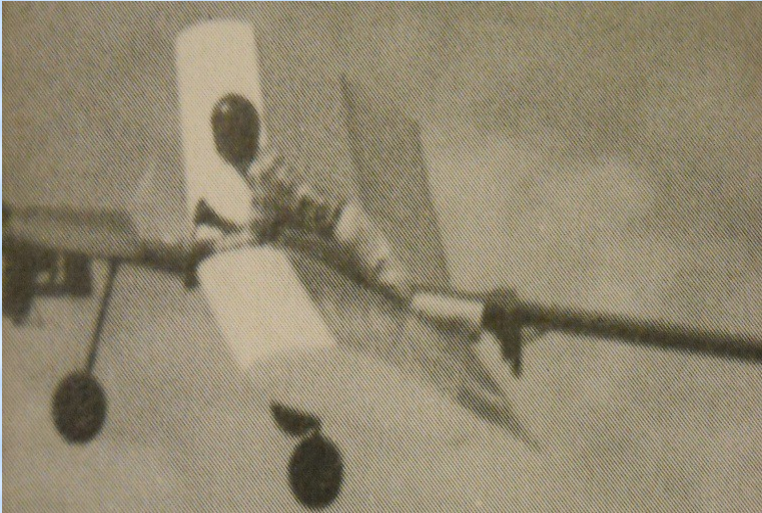
Designed by D. Paup. 2-axis control with pusher engine. Empty weight 165 lbs. Payload 237 lbs. Cruise speed 50 mph and stall speed 22 mph. Rate of climb 300 fpm.

PDQ-2 (1973)



The PDQ-2 was designed by Wayne Ison. Empty weight 218 lbs. Cruise speed 70 mph and stall speed 46 mph. Rate of Climb 400 fpm. Rockwell JLO engine.

Penetrator (1985)



Pilot flies prone. Empty weight 175 lbs. Cruise speed 60 mph and stall speed 24 mph. Structural limits +6 Gs and -6 Gs. Glide ratio 14:1. 40 hr build time

Pinocchio



**Resembles Fokker
Eindecker from WWI.
Estimated build time 750
hrs. 45 hp 1/2 /VW engine.
Cruise speed 55 mph and
stall speed 27 mph. Climb
Rate 750 fpm. Empty
weight 254 lbs.**

Pioneer FlightStar



Cruise speed approx. 50 mph. Stalls at approx. 25 mph. Structural limits are +6 Gs and -4 Gs. Empty weight 247 lbs. Payload 253 lbs.

Poorboy PB-1



Single-seat, high-wing, monoplane. Empty weight 254 lbs. Build time 450 hrs. Plans only

P.U.P. (1983)



**(Perfect Ultralight Plane).
Designed by Lyle
Matthews and sold as
plans. Cruise speed 40
mph, stall speed 28 mph.
Climb rate 600 fpm.
Empty weight 248 lbs.**

Quicksilver MX Sprint (1981)



**Designed by Dave Cronk.
Empty weight 250 lbs.
Load factors +5 Gs -3 Gs.
Cruise speed 46 mph,
stall speed 24 mph.
Assembly time estimated
at 30 to 40 hrs.**

Rally Sport



**Designed by Bill Adaska.
Empty weight 248 lbs.
Structural limits +6 Gs
and -3 Gs. 6. Glide ratio
8:1.**

Sandpiper ULS (1983)



**Designed by R.N. Miller.
Original wing covered by
balloon-type heat shrink
fabric. Approx. build time
120 hrs. Structural limits
are +6 Gs and -4 Gs.
Empty weight 254 lbs.**

Sadler Vampire



The first aircraft Mr. Sadler produced was all metal. Cruise speed 63 mph, stall speed 25 mph. Empty weight 245, payload 250 lbs, Structural limits +6 Gs and – 6 Gs.

Skybaby (1983)



Single seat, pusher aircraft. Wood, tube and fabric construction. Empty weight 155 lbs. Payload 205 lbs. Structural limits +5 Gs and -3 Gs.

Skycycle (1984)



Single seat, parasol-wing monoplane. Empty weight 254 lbs. Payload 200 lbs. Load factors +3.5 Gs and -2 Gs. Cruise speed 40 mph, stall speed 27 mph. Climb rate 500 fpm.

Snoop I (1981)



**Designed by Bob Able.
Stall speed 18 mph.
Empty weight 238 lbs.
Payload 280 lbs.
Structural limits +6 Gs
and -4 Gs.**

Sparrow (1987)



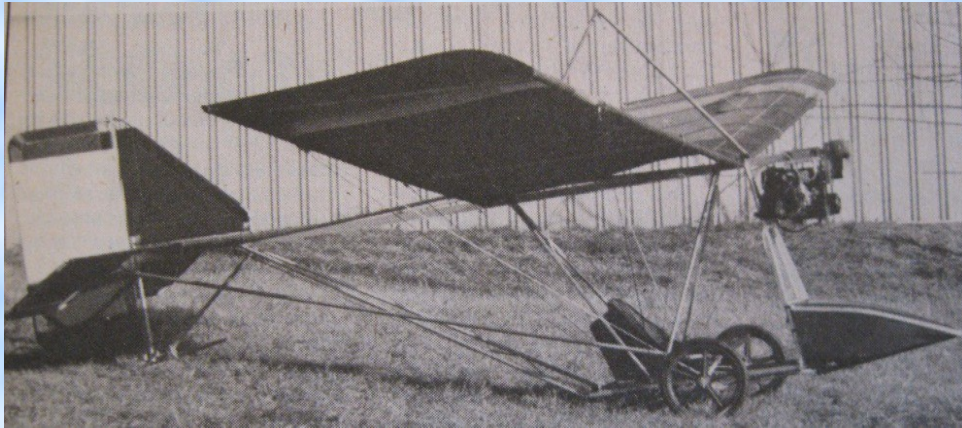
Single place, hi-wing monoplane. Empty weight 254 lbs. Payload 250 lbs. Cruise speed 58 mph and stall speed 26 mph. Climb rate 750 fpm.

Stratos (1982)



Designed by Larry Burke. Cruise speed 63 mph, stall speed 27 mph. Climb rate 750 fpm. Load factors +6 Gs and -3 Gs. Empty weight 250 lbs.

Sunbird



Developed by John W. Tucker. Cruise speed 40 mph, stall speed 20 mph. Climb rate 450 fpm. Empty weigh 250 lbs. Payload 275 lbs. Load factors +3 Gs and -3 Gs.

Stinger S-17



Covering is thermo-retractable sailcloth. Approximate build time 120-250 hrs. Cruise speed 55 mph, stall speed 27 mph and climb rate 800 fpm. Empty weight 250 lbs. Payload 317 lbs.

Sunburst



**Designed by John Massey.
30 hp. engine. Breaks down
to fit in a storage bag.
Cruising speed 35 mph,
stalling speed 25 mph, climb
rate 800 fpm. Empty weight
253 lbs. Estimated 30 hr.
construction time.**

Tristar (1980)



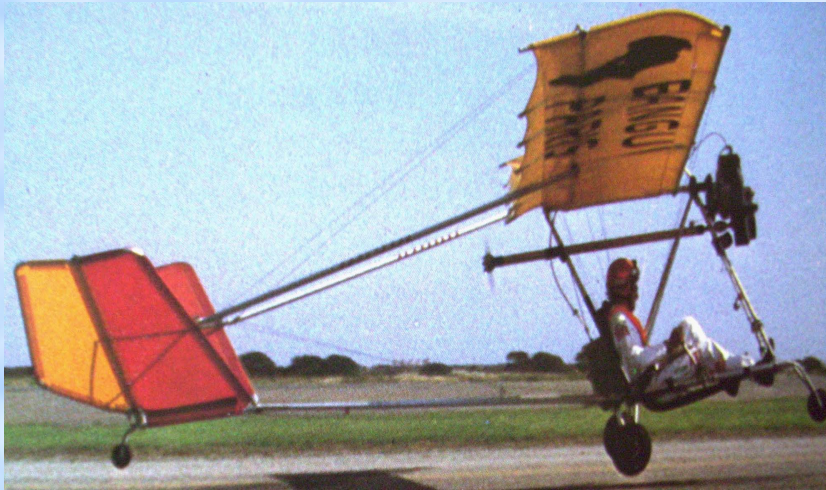
A Dick Turner design. Cruise speed 45 mph, stall speed 21 mph. Climb rate 800 fpm. Empty weight 200 lbs. Structural limits +5.8 Gs and -3 Gs.

Ultrastar



**Designed by Homer Kolb.
Steel tube and fabric
construction. 3-Axis control
system. Empty weight 235
lbs.**

Vector 600



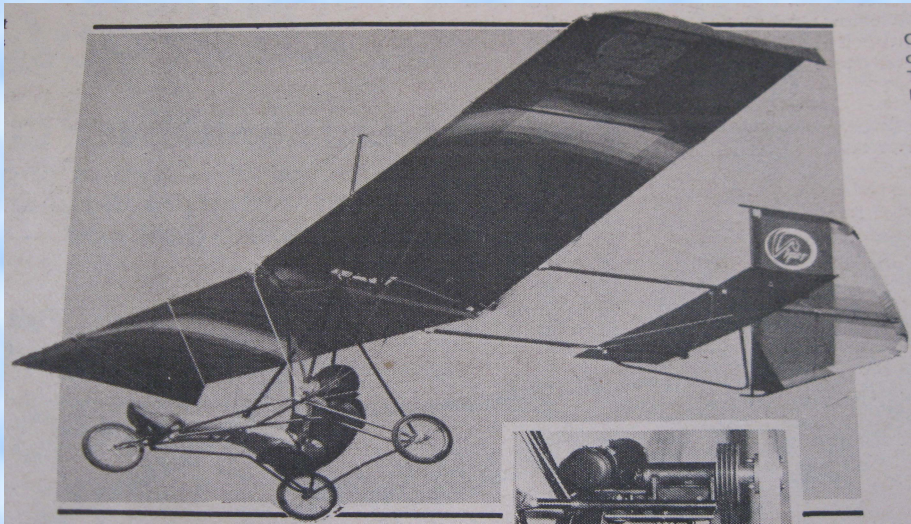
**Designed by Berndt
Petterson, Mike McCarron
and Paul Yarnell. 22 hp
engine. Cruise speed 45
mph with stall at 26 mph.
Climb rate 600 fpm. Empty
weight 195 lbs. Structural
limits +5.7 Gs and -2.8 Gs.**

Viking (1983)



Designed by Kevin Bell. 38 hp engine. Cruise speed 45 mph and stall speed 23 mph. Climb rate 800 fpm. Requires 75-100 hrs. for construction. Empty weight 244 lbs. Useful load 225 lbs. Structural limits +5 Gs and -3 Gs.

Viper II



**Aluminum tube and
Dacron covered wing.
Twin tailbooms. Empty
weight 150 lbs.**

Weedhopper (1977)



2-Axis control with tricycle landing gear. Empty weight 250 lbs. Payload 300 lbs. Cruise speed 55 mph and stall speed 20 mph. Rate of climb 1000 fpm.

Whing Ding II (1971)



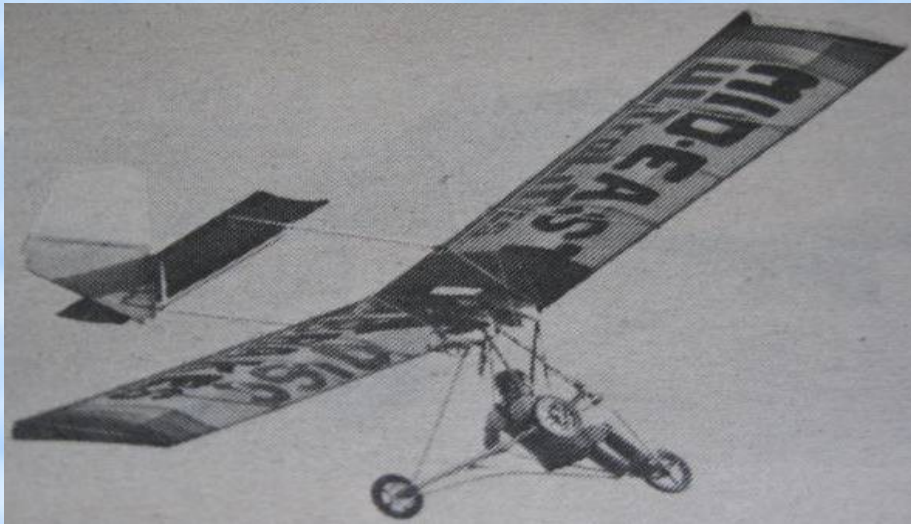
Designed by Bob Hovey. Essentially a plywood box filled with urethane foam. 14 hp McCulloch chainsaw engine. Cruise speed 40 mph, stall speed 26 mph, climb 100 fpm. Empty weight 123 lbs. Construction time around 400 hrs.

Witch (1982)



Designed by Marvin Greenwood. Easily transportable. 22 hp engine. Cruise speed 50 mph, stalling speed 26 mph. Structural limits +3.8 Gs and -2 Gs.

Wizard 1



Weight shift control system. Single surface, wire braced wing. Empty weight 167 lbs. Approximate build time 100 hrs. Glide ratio 9:1.

Woodhopper



Designed by John Chotia and featured on Popular Mechanics cover in 1978. Empty weight 145 lbs. Maximum pilot weight 200 lbs. Stress limit +3.5 Gs. Construction time 250-300 hrs.

Wren (1982)



**Designed by Mark Calder.
Composite construction
with Dacron covering. 28
hp 440A engine standard.
Empty weight 241 lbs. Kit
or plans built.**

Zing



Designed by Scott Lane. Estimated build time is 300-500 hrs. 30 hp Kawasaki engine. Cruise speed 60 mph and stall speed 27 mph. Climb rate 650 fpm. Empty weight 249 lbs. Payload 250 lbs.

**More information can be viewed at
virtualultralightmuseum.com.
Over 300 aircraft, from all over the
world, are included with pictures
and comprehensive descriptions.**

VUM, 03/2011