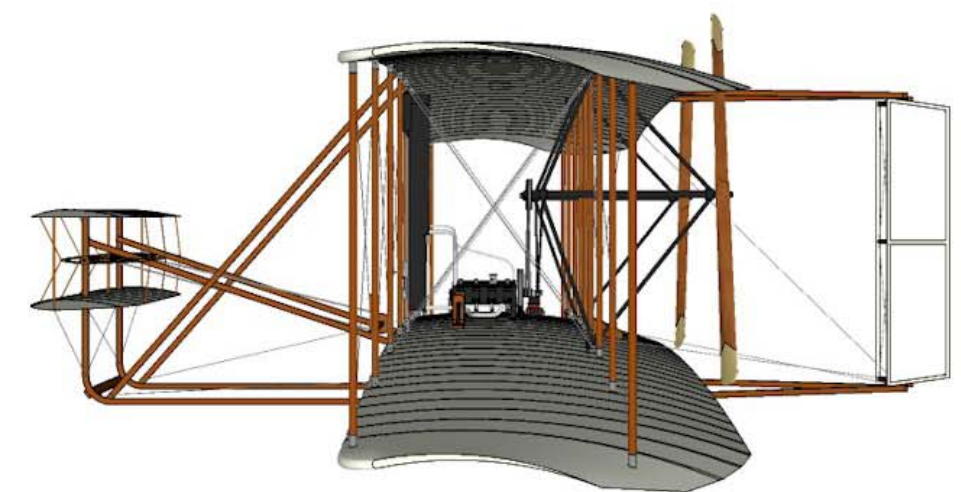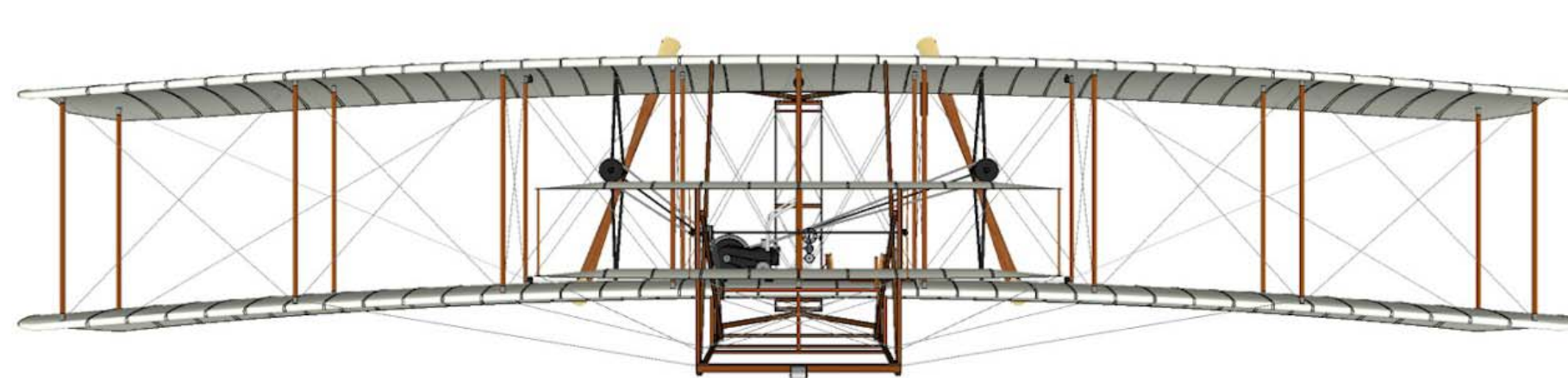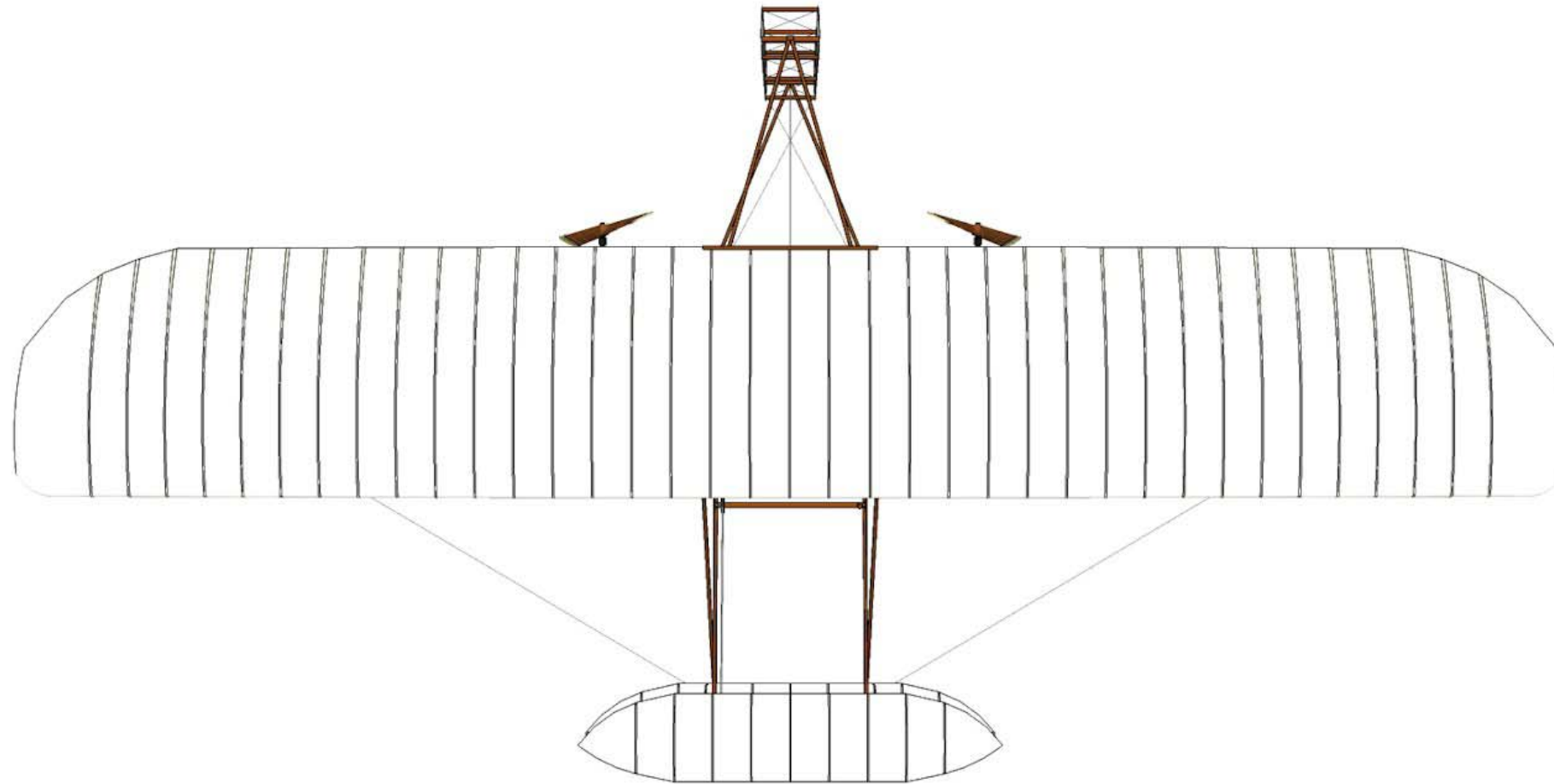# WRIGHT BROTHERS

AEROPLANE Co.
of DAYTON, OHIO

Specifications

Dimensions:
40 ft. 4 in (12.29 m) overall width
21 ft. (6.40 m) overall length
8 ft. 1 in. (2.46 m) height over wings
8 ft. 4 in. (2.54 m) height over sweep of propellers
6 ft. 6 in. (1.98 m) wing chord
1:20 wing camber
3° 25' angle of incidence
10 in. (0.25 m) wing anhedral (droop)

Surface Areas:
510 sq. ft. (48.31 m²) wing area (upper and lower)
48 sq. ft. (4.46 m²) elevator area (both surfaces)
20 sq. ft. (1.86 m²) rudder area (both surfaces)

Weights:
605 lbs. (274.42 kg) Total weight without pilot
16 lbs. (7.26 kg) fluids (water, gas, oil)
145 lbs. (65.77 kg) average weight of pilots

Engine:
4-cycle gasoline, 4 cylinders
4 in. bore x 4 in. stroke (10.16 cm x 10.16 cm)
Aluminum-copper alloy crankcase
12 hp at 1020 rpm
152 lbs (68.95 kg) weight of engine
18 lbs (8.16 kg) weight of magneto

Ignition:
Low tension magneto, make-and-break spark
Start engine with dry batteries; switch to magneto

Lubrication:
Internal splash-and-dash activated by crankshaft

Engine cooling:
Thermo-siphon water through radiator

Fuel system:
Gravity fed through rubber and steel tubing
0.4 gal. (1.51 l) capacity tank

Wing Loading:
1.47 lbs. per sq. ft. (7.18 kg per m²)
62.5 lbs. (28.35 kg) per engine horsepower

Propellers
Twin contra-rotating propellers
Pusher configuration
Driven by roller chain, 1-in. (2.54 cm) pitch
8-tooth sprockets on crankshaft
23-tooth sprockets on propeller shafts
2-7/8:1 Engine to propeller rpm ratio
980 rpm approx. engine speed in flight
340 rpm approx. propeller speed in flight

1903 Wright Flyer
Built by Wilbur and Orville Wright of Dayton, Ohio and flown by them on December 17, 1903 near Kitty Hawk, North Carolina.
They completed four flights, the longest lasting 59 seconds and covering 852 feet (259.69 meters).