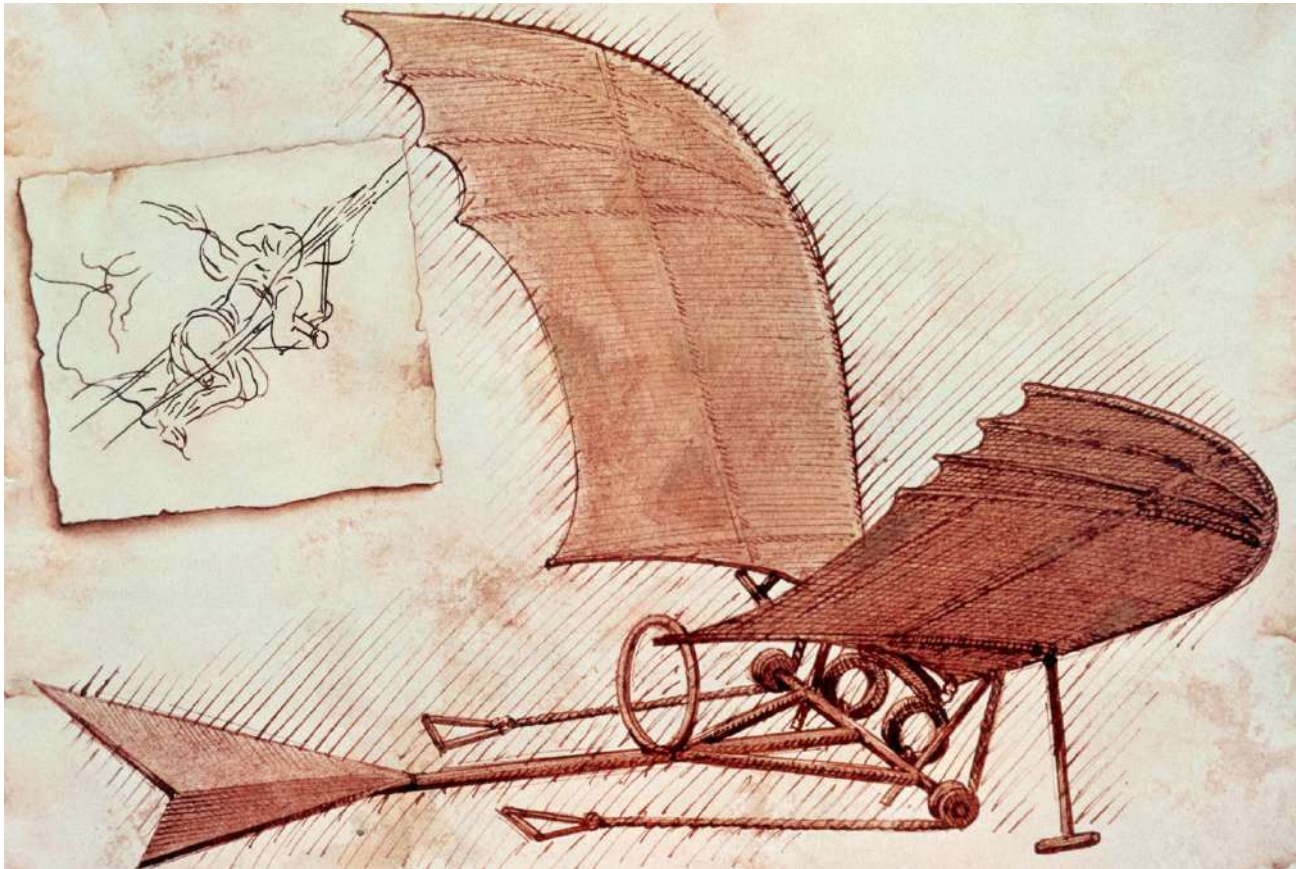
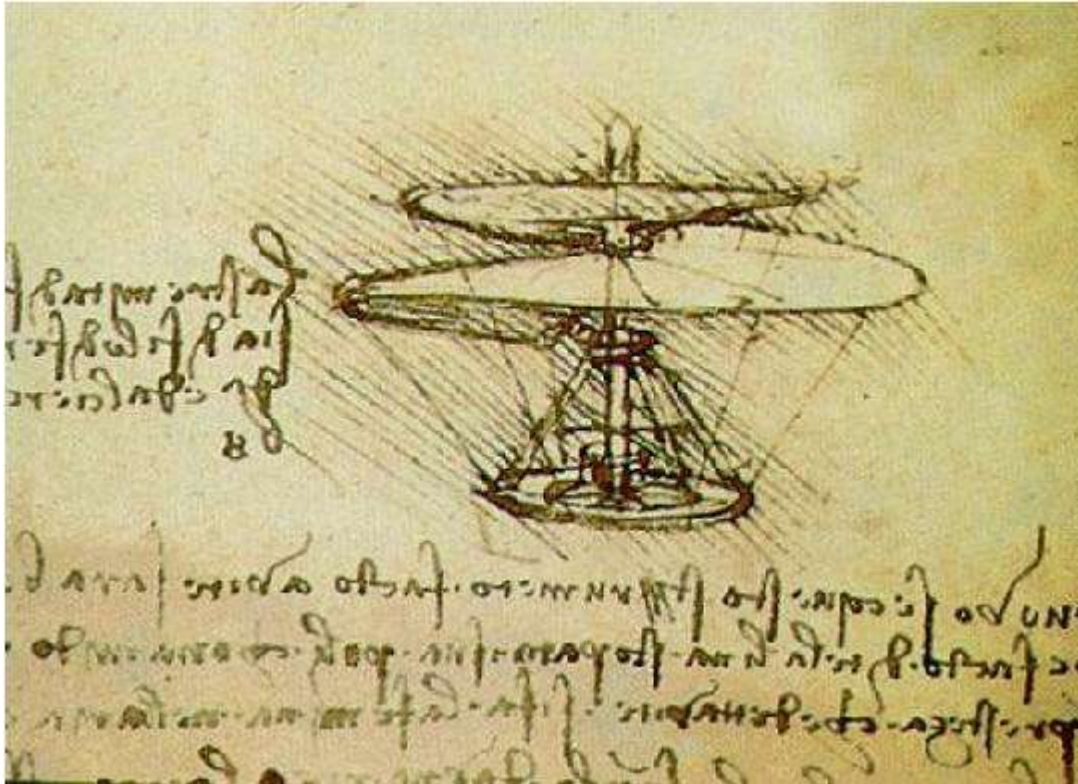


Flight Part 3



Leonardo DaVinci

First rational designs, but not very scientific.



None of Leonardo's designs were ever built in his lifetime.

Da Vinci's Ornithopter

His most famous design, inspired by bird flight.



Model

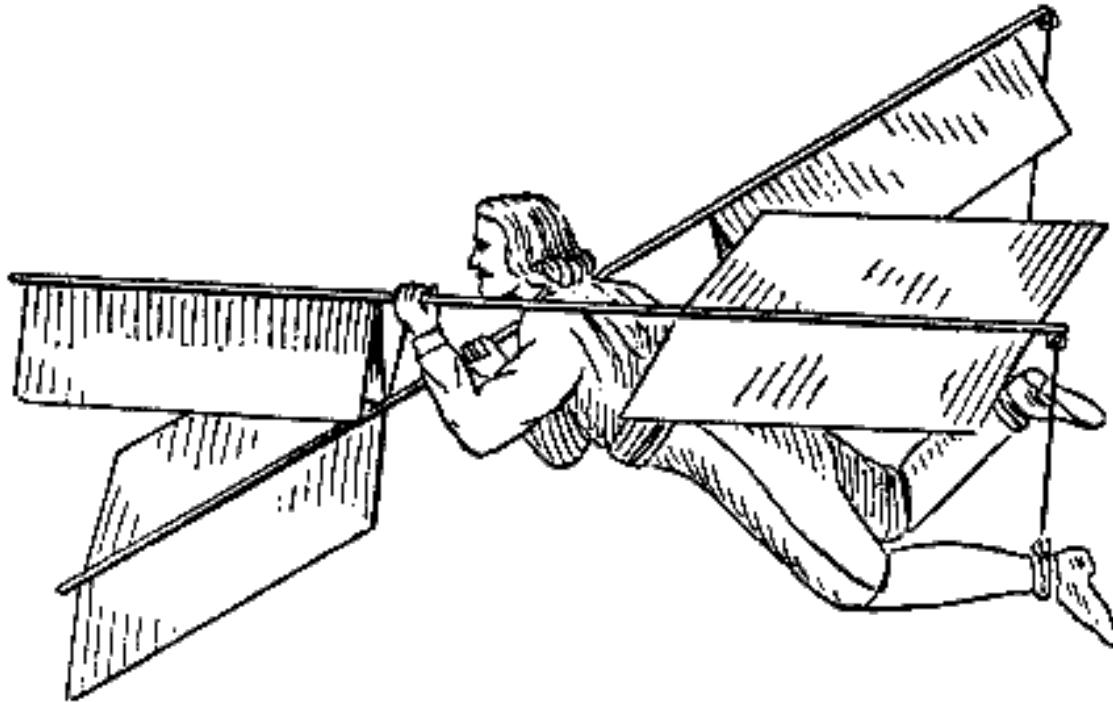


British parachutist Adrian Nicholas proved in 2000 that Da Vinci's parachute works. He used his wood and cloth replica successfully to drop from a balloon 3 km in the air!



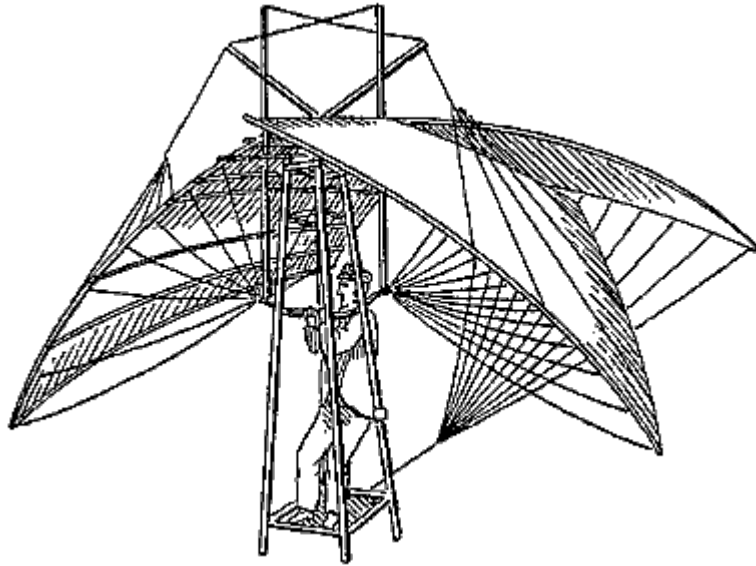
Besnier, 1678

Tried to impress the King of France but crashed and got badly hurt.



Other Flying Machines

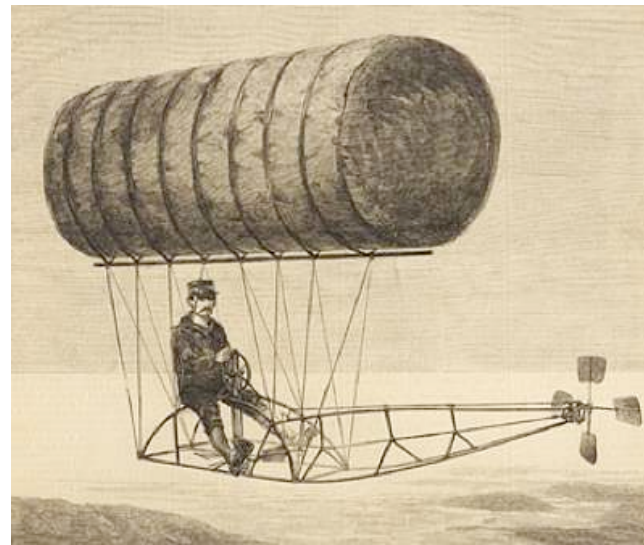
(none successful!)



De Groof, 1864



Frost, 1890s

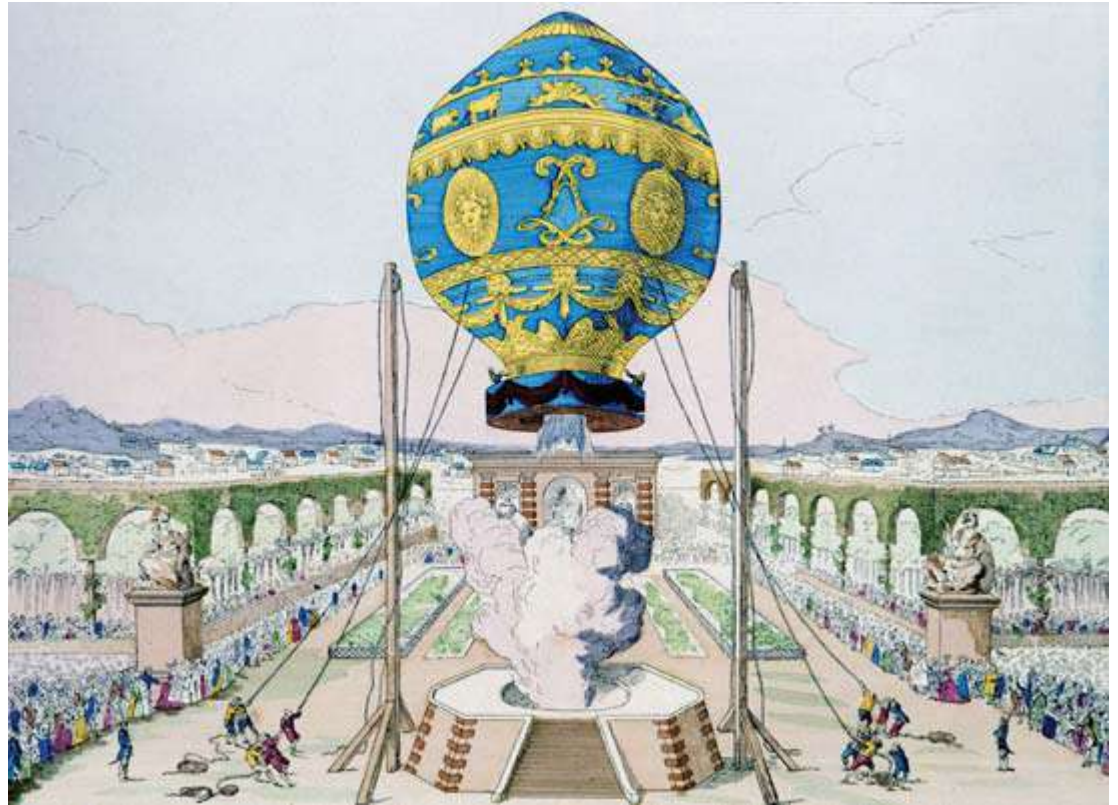


Ritchell, 1878

Success! With balloons!



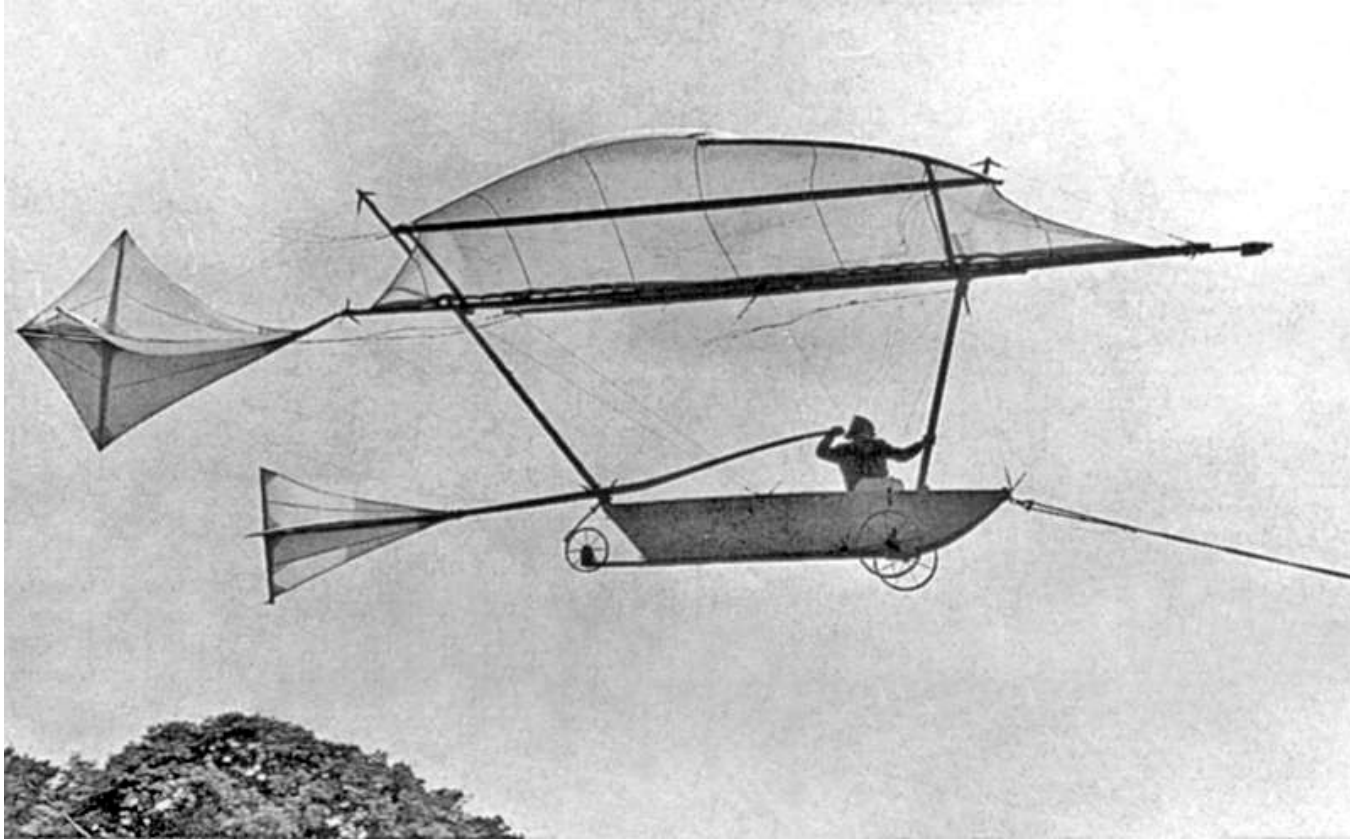
Charles and the Nicolas-Louis Robert, 1783



Montgolfier brothers, 1783

Sir George Cayley

A key pioneer in the theory of flight and innovator of gliders.



Glider, 1853



Otto Lilienthal

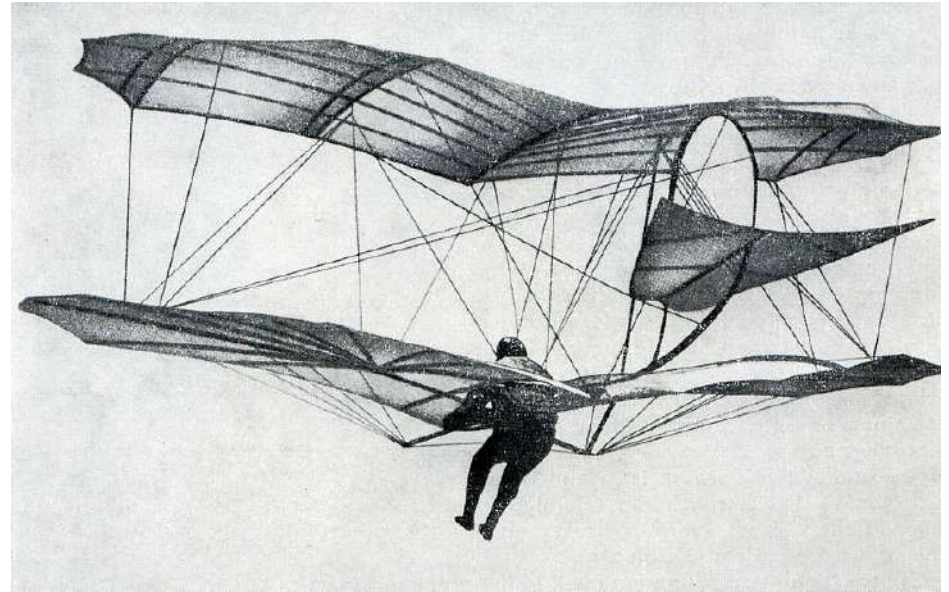
Most famous of a number glider experimenters before
1900



He flew over two thousand times from 1891 to 1896



First glider



One of his later gliders