

Good balsa glider project report example

[Engineering](#), [Aviation](#)



Prototype Description

The glider prototype has a standard tail and is going to include regular wings made of paper that will act as a representative of an actual glider. Two pieces of wood of the same length are joined to meet at a ninety degree angle. Another two pieces of woods are added to support the glide structure.

Construction

The Balsa glider prototype is constructed using four pieces of wood. Two pieces wood of the same length (each 30cm in length) are attached together at an angle ninety degrees. The two remaining pieces are placed variably to cross each other and meet at the ninety degree tip. The joints and vertices are taped and glued firmly.

Tools used

The tools used to make the balsa glider: cello tape and glue used to firmly hold the wood joints and vertices, ruler for wood length measurement and a saw for adjusting the wood length accordingly.

Materials used

The materials used to make the balsa glide : balsa wood, clay to increase levitation capabilities and paper to act as wings for the glider.

Description

The glider is now completely made using the balsa wood and the paper wing attached firmly. The clay is added to the font tip in order to increase flight range and height of flight. As described above, the two outer woods are

joined at an angle of ninety degrees, but one can adjust the angle in order to affect the levitation capabilities of the glide.

Flight Test Method

The flight test is done from a height of 19 feet. This trial is done 10 times and each time an appropriate adjustment is made to the glider to affect the overall flight distance and height of levitation covered. These variations are recorded on a table. The glide distance and height are then used to calculate the glide ratio. The value is calculated by getting the quotient of the two quantities.

Results

The height is constant at 19 feet.

Average Gliding Distance= $(25+28+. +61+58+57)/10= 43. 2$ feet

Average Gliding Ratio= $(1. 32++3. 2+3. 05+3)/10= 2. 272=> 2: 1$ gliding ratio

Discussion