

Microglider Assembly

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1 Introduction

2 Parts

2.1 Motor Mount

Motor Mount (Aluminium):

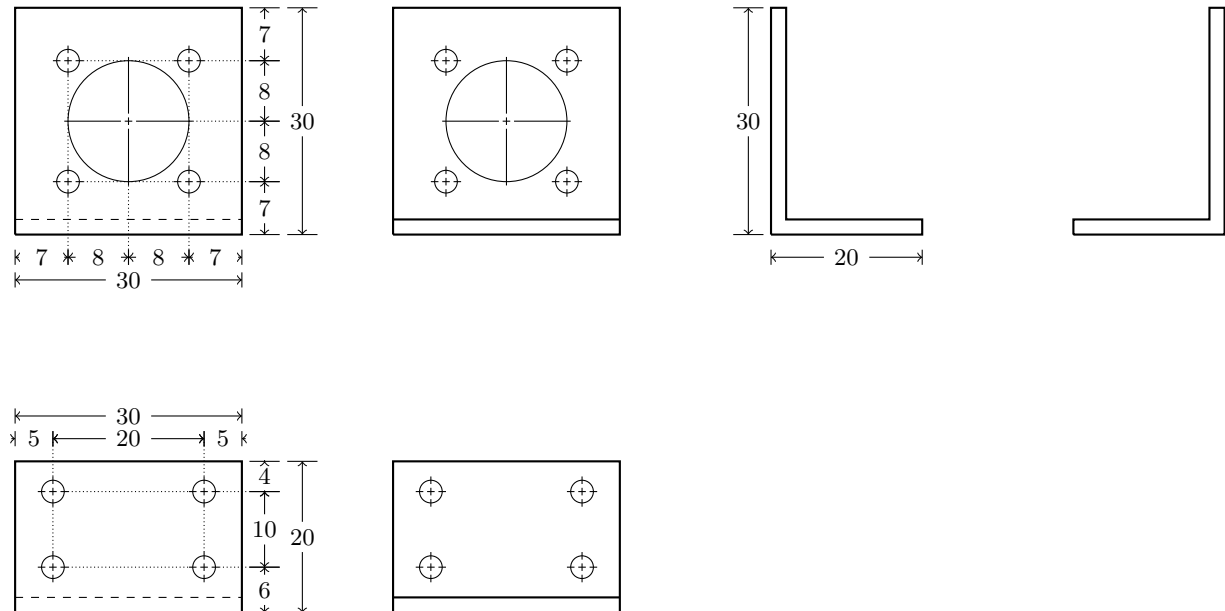


Figure 1: Motor mount front, rear, bottom and side view.

2.2 Fuselage

The fuselage is 36cm long, 2mm thick and 4cm wide, consists of aluminium and provides connectivity to sensors and drivers. The construction plans for the fuselage can be found in figures 2 and 3.

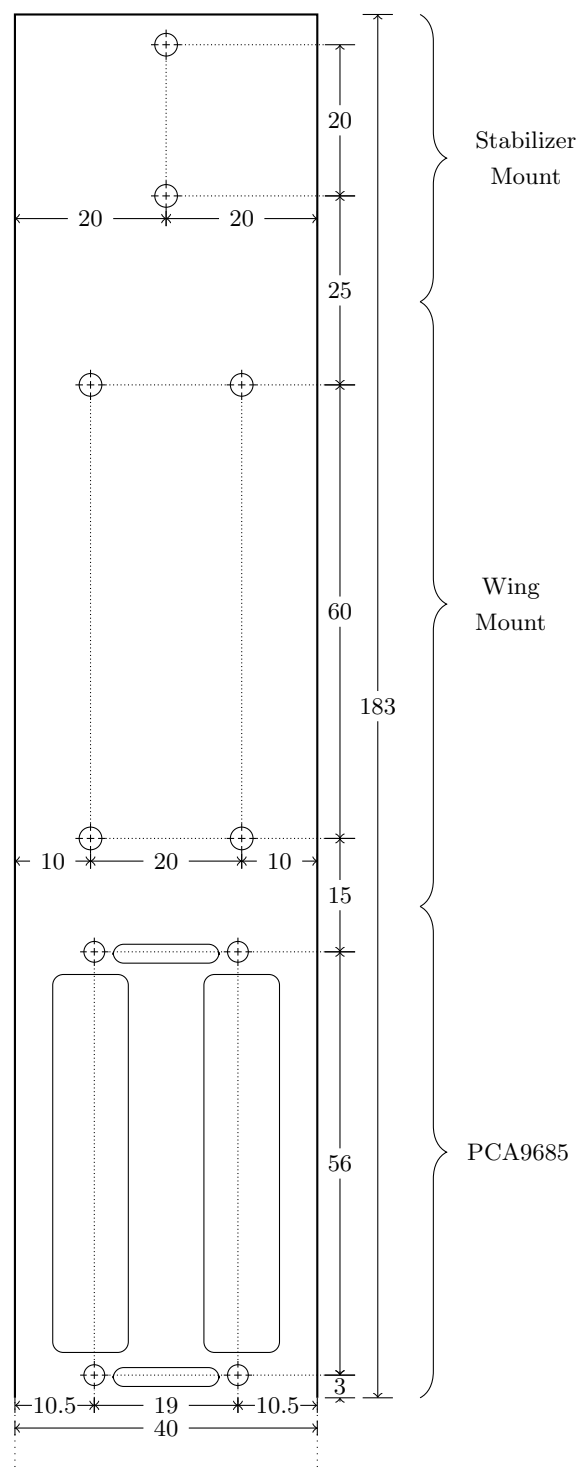


Figure 2: Fuselage Part 1.

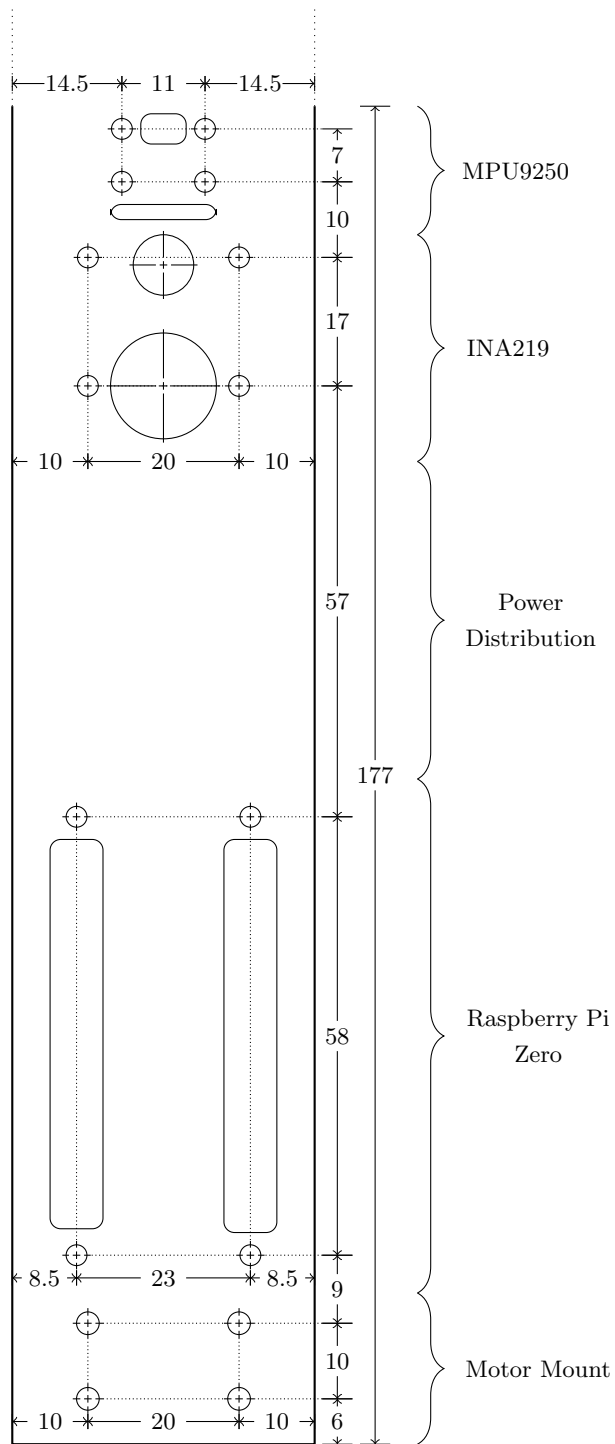


Figure 3: Fuselage Part 2

2.3 Wings

The Microglider has a relatively wide wingspan compared to the fuselage length. With a total wingspan of 100cm it is a very minimalistic model. Additionally, there is a horizontal stabilizer, consisting of two separate wings, and a high vertical stabilizer. Using aluminium as wing material, the Microglider is really robust without being too heavy.

2.3.1 Main

The wing schematics are given in figures 4 and 5.

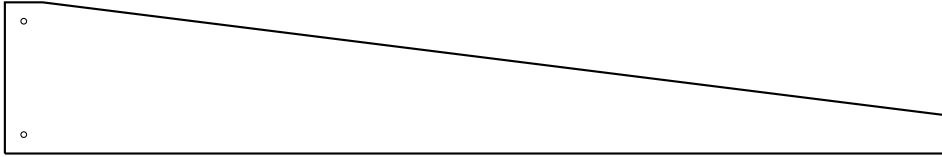


Figure 4: Wings front, rear, bottom and side view.

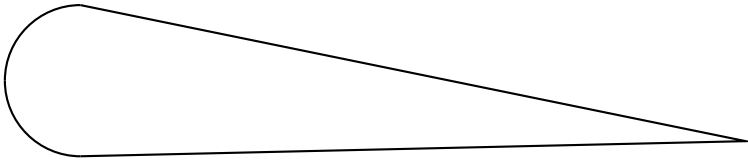


Figure 5: Airfoil of the wing.

2.3.2 Stabilizer

The wing schematics for the vertical and horizontal stabilizer are depicted in figure 6.

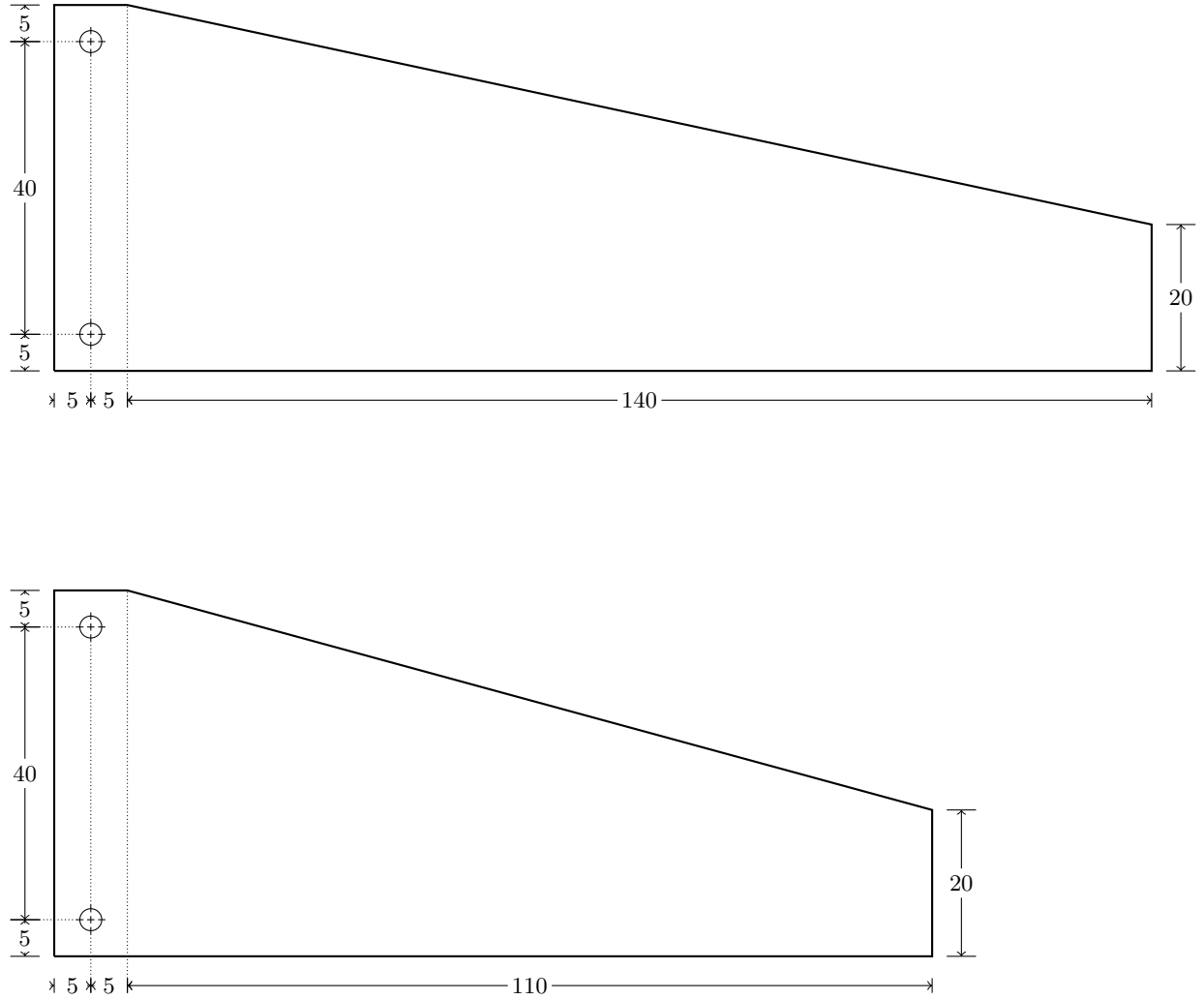


Figure 6: Vertical (top) and horizontal (bottom) stabilizer wings.

2.3.3 Stabilizer Mount

2.3.4 Stabilizer Angle

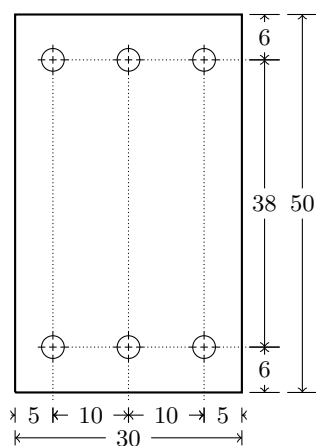


Figure 7: Stabilizer Mount Plate

3 Assembly

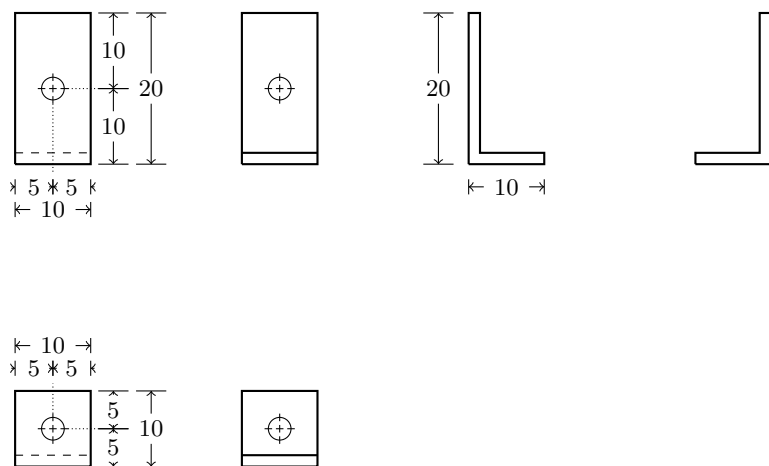


Figure 8: Vertical Stabilizer Angles

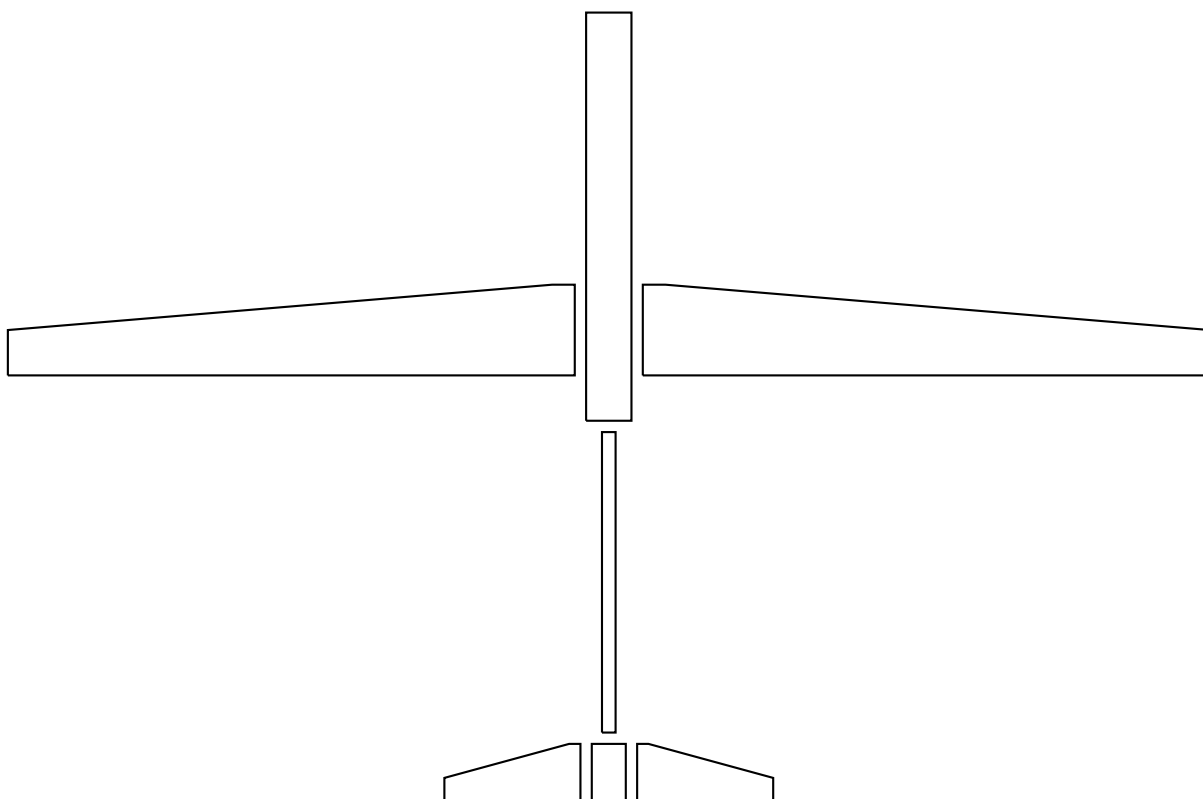


Figure 9: Full Assembly