

# Calculations of the centre of gravity

Component: weight

Magnet Sensor	1g
Distance Sensor	3g
Battery	59g
Arduino	25g
Marking System	$\approx 40g$

$$\text{Centre of gravity} = \frac{\text{weight distance moment}}{\text{total mass}}$$

C.O.G. calc.

= ~~128~~

front side  
= 44g

back side  
= 59g

$$60 \times 44 + 59 \times 60 = 6180 \text{ g}\cdot\text{mm}$$

$$\text{Centre of gravity} = \text{wdm} / \text{total mass}$$

$$= 6180 / 88$$

$$= 70.3 \text{ mm}$$

Therefore, the centre of gravity is 70.3 mm to the left of the chassis