Global parameters for the moth model. Below, we show a table of all the required parameters to recreate the simulated model of a moth.

Label	Value	Units	Description
$L1$	0.9	cm	Length from the thorax-abdomen joint to the center of mass of the head-thorax
$L2$	1.9	cm	Length from the thorax-abdomen joint to the center of mass of the abdomen
$L3$	0.75	cm	Length from the thorax-abdomen joint to the aerodynamic force vector
ρ_{head}	0.9	g/cm^2	The density of the insect head-thorax
ρ_{butt}	0.4	g/cm^2	The density of the insect abdomen
ρ_A	0.00118	g/cm^3	The density of air
μ_A	0.000186	g/cm·s	The dynamic viscosity of air at 27°C
a_{head}	0.9	cm	Length of 1/2 major axis of head-thorax ellipsoid
a_{butt}	1.9	cm	Length of 1/2 of major axis of abdomen ellipsoid
b_{head}	0.5	cm	Length of 1/2 of minor axis of head-thorax ellipsoid
b_{butt}	0.75	cm	Length of 1/2 of minor axis of abdomen ellipsoid
K	23000	cm^2·g/(rad·s^2)	Torsional spring constant of the thorax-abdomen joint
c	14075.8	cm^2·g/s	Torsional damping constant of the thorax-abdomen joint
g	14075.8	cm/s^2	Acceleration due to gravity
β_R	0	rad	Resting configuration of the torsional spring = (initial abdomen angle) - (initial head-thorax angle) - π
t	0.02	s	Time step