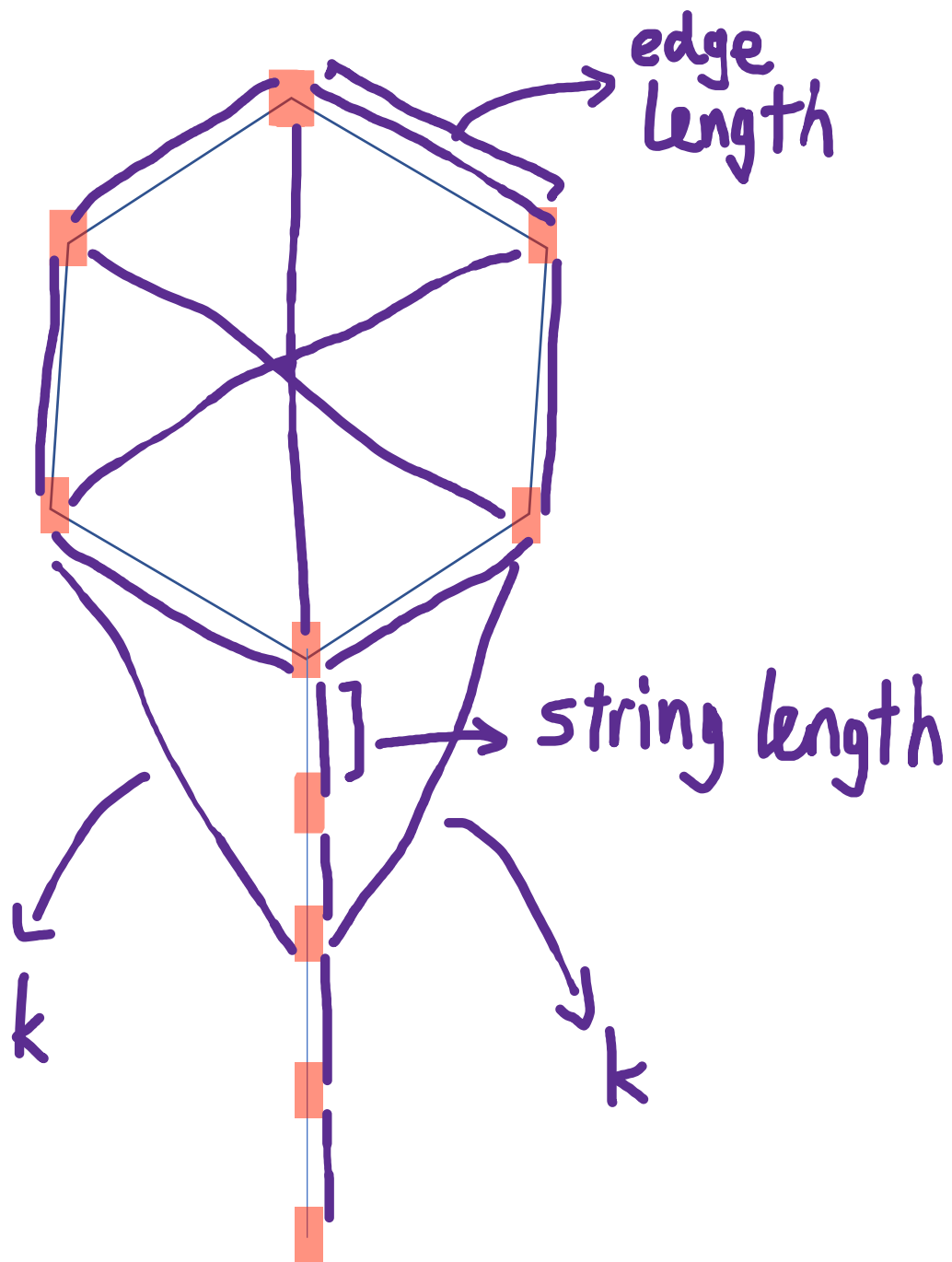


Title: Verlet-balloon by ZiQi Li 260868491



■ points

— constraints

The points are shown with red color marks, the constraints between points are shown with blue lines. (the constraints will be the resting distance between 2 points)

The edge length and string length are some fix length we define.

The length of the 3 cross lines inside the balloon body is calculated simply using trigonometry (we know that each angle inside a perfect hexagon is 120degree and the length of each edge is defined by us, so we can easily calculate the length of cross line).

The length of the lines (k) between balloon points and the string point can be calculated using Law of cosine knowing that the angle between balloon edge and the string is 120 degree. We add these two constraints to ensure that the string won't end up inside the balloon body.