



points p1, p2 define the base
 angle α is how far the base is tilted over
 angle β is how much further the end should be tilted over
 length b is the length of the base
 length l is the length of the shape
 length e is the length of the end
 length s is the length of the shortest side
 point p3 is the mid-point of the base
 point p4 is the mid-point of the end
 points p5, p6 are the end-points of the end.

p1, β and l are always parameters
 p2 could be a parameter, from which b and α are derived
 or b and α could be parameters from which p2 is derived
 e could be a parameter if b is,
 or t (taper) could be a parameter, and e is b/t

Using “graphics coordinates” in which the y axis is upside-down, and direction 0 is straight up and increases to the clockwise.

$$\begin{aligned}
 b &= \text{distance}(p1, p2) \\
 \alpha &= \text{direction}(p1, p2) - 90^\circ \\
 &\text{or} \\
 p2 &= (p1x + b \times \cos \alpha, p1y + b \times \sin \alpha)
 \end{aligned}$$

if $\sin \beta > 2 \times l / b$ do not continue, because s will be negative.

$$p3 = ((p1x + p2x)/2, (p1y + p2y)/2)$$

$$p4 = (p3x + l \times \sin(\alpha+\beta), p3y - l \times \cos(\alpha+\beta))$$

$$p5 = (p4x - \frac{1}{2}e \times \sin \gamma, p4y - \frac{1}{2}e \times \cos \gamma)$$

$$p6 = (p4x + \frac{1}{2}e \times \sin \gamma, p4y + \frac{1}{2}e \times \cos \gamma)$$

$$\text{where } \gamma = 90^\circ - \alpha - \beta$$