





AD Vector

Constructor $\begin{cases} x: \text{number} \\ y: \text{number} \end{cases}$
 \downarrow
 $\text{this.set}(-x, -y);$
 \downarrow


set $\begin{cases} -x: \text{number} \\ -y: \text{number} \end{cases}$
 \downarrow
 $\text{this.x} = -x$
 $\text{this.y} = -y$
 \downarrow


Scale $\begin{cases} \text{factor: number} \end{cases}$
 \downarrow
 $\text{this.x} *= \text{factor}$
 $\text{this.y} *= \text{factor}$
 \downarrow


add $\begin{cases} \text{added} \end{cases}$
 \downarrow
 $\text{this.x} += \text{added}$
 $\text{this.y} += \text{added}$
 \downarrow


random $\begin{cases} \text{minLength: number} \\ \text{maxLength: number} \end{cases}$

$\text{length: number} = \text{minLength} + \text{Math.random()} * (\text{maxLength} - \text{minLength})$

$\text{direction: number} = \text{Math.random()} * 2 * \text{Math.PI}$

$\text{this.set}(\text{Math.cos}(\text{direction}), \text{Math.sin}(\text{direction}))$
 $\text{this.scale}(\text{length})$
 \downarrow
