

# Particle Directions

Directions can be specified by specifying the emitted particle velocity towards either the target position or the target vector.

## Target Direction

The **Target Direction** component sets emitted particle velocity towards the target position.

Specify common settings for particle target direction in **Properties > Particle Target Direction**.

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PARTICLE TARGET DIRECTION

Position

0.00

X

0.00

Y

0.00

Z

Position Variation

0.00

X

0.00

Y

0.00

Z

Normalized

false

Magnitude

1.00

Magnitude Variation

0.00

**Position** specifies the position of the target of the particle. For variation in the target position, specify **Position variation**.

**Normalized** determines whether the distance to the position affects the magnitude of the particle's velocity. Enable **Normalize** to derive the velocity amount only from **Magnitude** and **Magnitude variation**.

**Magnitude** specifies the magnitude in **Position** change per second. A negative value accelerates the in the opposite direction from the position. When **Normalized** is disabled, this value is multiplied with the distance to the target position. For variation in the magnitude, specify **Magnitude variation**.

For example, to emit particles towards the target position (100, 0, 0) with random magnitude between 10..20, set **Magnitude** to 15.00 and **Magnitude variation** to 5.00. Further, enable **Normalized**.

The **Vector Direction** component sets emitted particle velocity towards the target vector. The length of the direction vector is used as the velocity magnitude.

Specify common settings for particle vector direction in **Properties > Particle Vector Direction**.

PARTICLE VECTOR DIRECTION

Direction

0.00

X

100.00

Y

0.00

Z

Direction Variation

0.00

X

0.00

Y

0.00

Z

Normalized

false

**Direction** specifies the direction of the target of the particle. A positive **Y** value means *up*, while a negative value means *down*. A negative **Z** value causes the particles to move in the direction opposite to the target vector.

For variation in the target direction, specify **Direction variation**. Enable **Normalized** to normalize direction after applying the variation. When it is disabled, variation affects the magnitude of the particles' velocity. When it is enabled, variation affects the direction, but the magnitude is determined by the original direction length.



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