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CoreXY Mechanism

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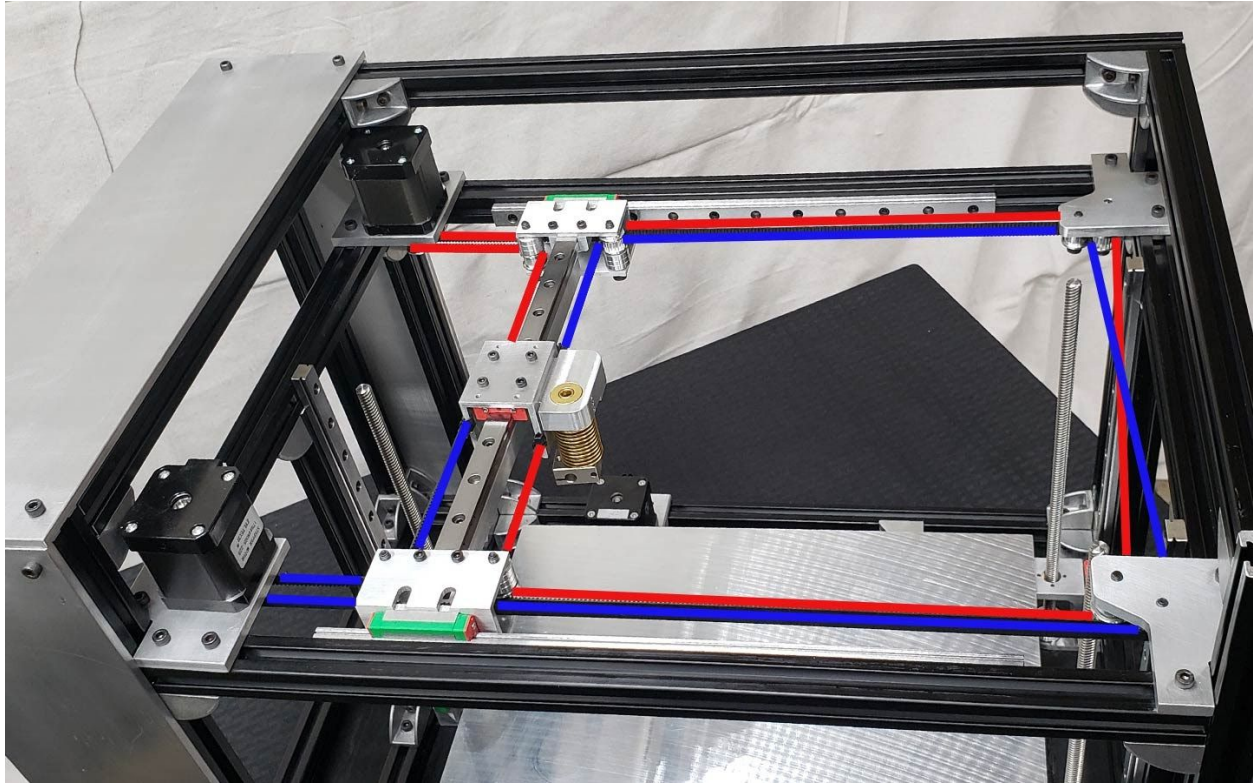
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CoreXY 3D Printer [View project](#)

CoreXY Explained



CoreXY Explained

The corexy parallel kinematics mean's that the motors are the largest source of inertia within the system, and are stationary. This means rapid acceleration because the two [stepper motors](#) provide a means of moving both axes independently or simultaneously. The major benefit of the design is that the motors remain in a static position.

The corexy kinematics is a complex motion system where X or Y motor move together or opposite of each other to move the [carriage](#) from left to right or towards or away . If you were to move just one motor you would see the print head move diagonal.. If the two motors move opposite of each other the print head will move along the X-axis, If the two motors move in the same direction the carriage will move along the [Y-axis](#).

[CoreXY Kinematics](#)

Two Motors

- Both Motors Move Clockwise >> Carriage Moves Left

- **Both Motors Move Counter Clockwise>> Carriage Moves Right**
- **Both Motors Move Opposite of Each Other>> Carriage Moves Toward & Away**
- **One Motor Moves>> Carriage Moves Diagonal**

Core XY Kinematics

Corexy vs Cartesian

The difference between corexy and the cartesian motion system is the corexy reduces inertia from the static motor positions while the cartesian setup uses at least one motor to drive along each axis. The weight of the motor increases inertia making it more difficult to change direction. Which results in the corexy theoretically being faster in and more accurate than the cartesian.

Also See

[Crossed Belts vs Offsetting Motors](#)

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[SolidCore X-Carriage](#)

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<https://github.com/machineagency/jubilee>