

FINCH ROBOT 2.0 BLOCK DESCRIPTIONS

MakeCode



Start Finch

This block is required for every Finch program. Put it in the **on start** block.



Finch Move Forward 10 cm at 50 %

Moves the Finch forward or back for a given distance at a given speed (0-100%).



Finch Turn Right 90 ° at 50 %

Turns the Finch right or left a given angle at a given speed (0-100%).



Finch Beak Red 0 Green 0 Blue 0

Sets the tri-color LED in the Finch beak to the color specified by red, green, and blue brightness values. The values range from 0% to 100%.



Finch Tail 1
Red 0
Green 0
Blue 0

Sets one or all of the tri-color LEDs in the Finch tail to the color specified by red, green, and blue brightness values. The values range from 0% to 100%.



Finch Wheels L 0 % R 0 %

Sets the rotation speeds of the left and right Finch wheels to values from -100 to 100%.



Finch Stop

Stops the Finch wheels.



Finch Distance (cm)

Returns the value of the Finch distance sensor in cm.

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Finch Right ▾ Light

Returns the value of the right or left Finch light sensor from 0 to 100.

Finch Right ▾ Line

Returns the value of the right or left Finch line tracking sensor from 0 to 100.

Finch Right ▾ Encoder

Returns the number of rotations that the right or left wheel has turned.

Finch Reset Encoders

Sets the value of the left and right encoders to zero.

Finch Beak Up ▾

Returns a Boolean value that indicates whether or not the Finch is in the selected position.

Finch Accelerometer (m/s²) ▾ x ▾

Returns the value of the Finch accelerometer or magnetometer in the x, y, or z direction.

Finch Compass

Returns the value of the Finch compass in degrees.

Finch Battery

Reads the value of the battery in milliVolts. You may start to see strange behavior when the value is below 3373 mV.

You can access free MakeCode programming tutorials at...

birdbraintechnologies.com/finch2/makecode/program