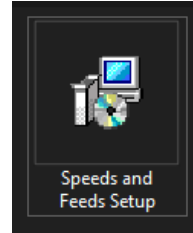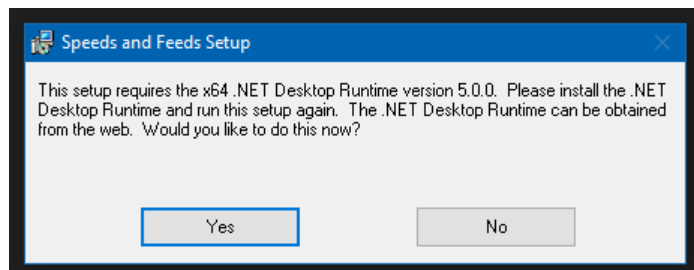# How to Install the BobsCNC Speeds & Feeds Calculator

CLICK on the Speeds and Feeds Set Up Icon

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The runtime includes everything you need to run existing .NET and ASP.NET Core applications.

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Run desktop apps
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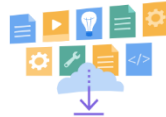
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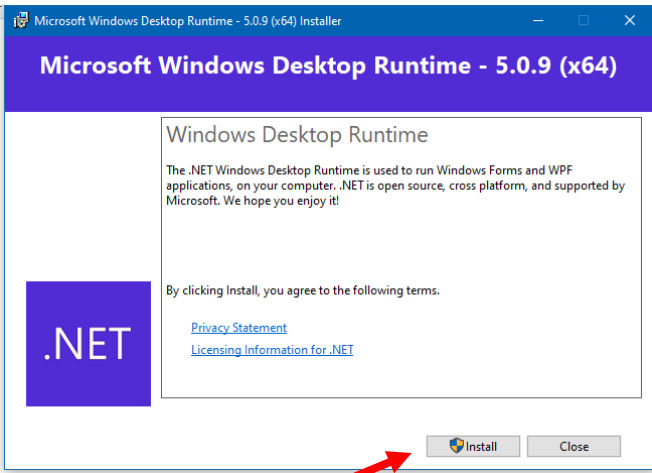**.NET 5.0 Desktop Runtime (v5.0.9) - Windows x64 Installer!**

⑦ The .NET Desktop Runtime also includes the .NET Runtime.

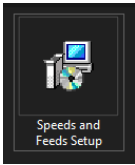If your download doesn't start after 30 seconds, click here to download manually.

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Microsoft Windows Desktop Runtime - 5.0.9 (x64) Installer — □ ×

Microsoft Windows Desktop Runtime - 5.0.9 (x64)

Windows Desktop Runtime

The .NET Windows Desktop Runtime is used to run Windows Forms and WPF applications, on your computer. .NET is open source, cross platform, and supported by Microsoft. We hope you enjoy it!

By clicking Install, you agree to the following terms.

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Speeds and Feeds Setup
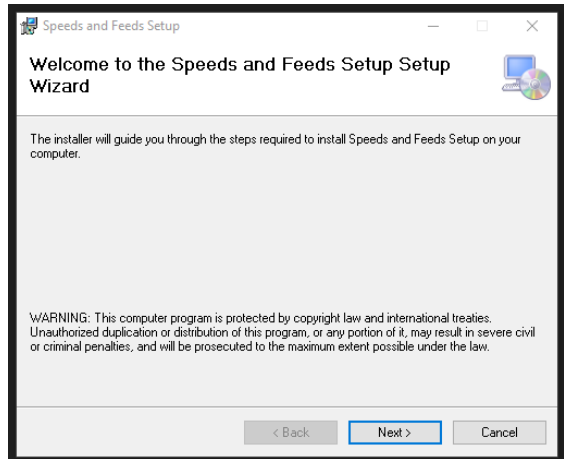
After the installation is complete CLICK the Speed and Feeds Icon and use the Set Up Wizard to complete installation.

Once completed the BobsCNC Speeds and Feeds Icon will appear on your desktop

.

BobsCNC Speeds ...

Speeds and Feeds Setup — □ ×

Welcome to the Speeds and Feeds Setup Setup Wizard

The installer will guide you through the steps required to install Speeds and Feeds Setup on your computer.

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< Back   Next >   Cancel

Select the model
BobsCNC Router

Select the material you
are using.

Select the units you are
using, mm or inches

Select the diameter of
the router bit.

Select the number of
cutting flute on the
router bit.

Speed and Feed Calculator

BobsCNC
Unleash *Your* Creativity

CNC Model: Evolution Series - Makita

Material: MDF

Units: Inches

Bit Diameter: 0.250 inches

Number of Flutes: 2

Project Settings:

Makita Dial: 2.3
Feed rate: 199 inches/minute
Plunge rate: 99 inches/minute
Step over: 0.075 inches
Depth per pass: 0.100 inches

Calculating Speeds and Feeds

It is important to note that there are many variables when setting CNC cutting parameters. The values set should be thought of a starting values. With experience, these values can be modified to find the sweet spot for the project that you are working on.

Calculation details:

Surface Feet per Minute (SFM) Is a number that sets the best RPM for cutting the material. This number varies depending on the manufacture of the tool and CNC machine. The calculation is:

$$SFM = RPM \times 0.2618 \times bit\ diameter\ (inches)$$

We have added default SFM values. If SFM value is modified, it will change the RPM of the spindle.

Once the RPM is determined, you can calculate the feed rate with the formula

$$Feed\ Rate = RPM \times Flute\ count \times Chip\ load$$

The flute count is the number of flutes on the bit, and the chip

☐ Override RPM and/or Chip load

Chip Load: 0.0065 inches
Spindle Speed: 15279 RPM
Surface Speed: 1000 feet/minite

Additional information including
warnings will be shown in this
screen.

Project Settings will give you a
general reference to help you
set the speeds and feeds for
your tool path.