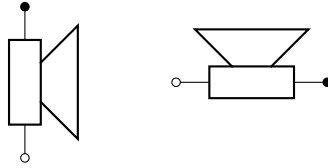


An easy way to create your own circuitikz symbols.

John Kormylo

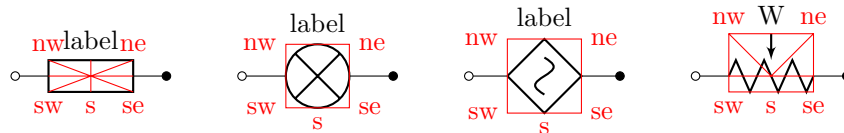
Use an existing component and simply add to or replace the image. My first attempt looked like this:



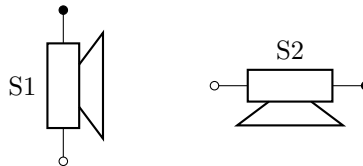
```
\newcommand{\speaker}[2] % #1 = name from to[generic,n=#1], #2 = rotation angle
{\draw[thick,rotate=#2] (#1) +(.2,.25) -- +(.7,.75) -- +(.7,-.75) -- +(.2,-.25);}
```

```
\begin{center}
\begin{circuitikz}
\draw (0,0) to[generic,n=S1,o-*] (0,2);
\draw (2,1) to[generic,n=S2,o-*] (4,1);
\speaker{S1}{0}
\speaker{S2}{90}
\end{circuitikz}
\end{center}
```

The good news is the simplicity of the design. The bad news is that you have to rotate it yourself. So my second attempt used the anchor points to define the shape.



As you can see, all eight of the compass anchor points for generic are on the edge of the rectangle. You can specify the center using either (name) or (name.center).



```
\newcommand{\speaker}[1] % #1 = name from to[generic,n=#1]
{
\coordinate (a) at ($(#1.sw)!.5!(#1.s)$); %midpoint of sw and s
\coordinate (b) at ($(#1)!2.5!(a)$); %2.5 times as far from center
\coordinate (d) at ($(#1.se)!.5!(#1.s)$); %midpoint of se and s
\coordinate (c) at ($(#1)!2.5!(d)$); %2.5 times as far from center
\draw[thick] (a) -- (b) -- (c) -- (d);
}
```

```

\begin{center}
\begin{circuitikz}
\draw (0,0) to[generic,l=S1,n=S1,o-] (0,2);
\draw (2,1) to[generic,l=S2,n=S2,o-] (4,1);
\speaker{S1}
\speaker{S2}
\end{circuitikz}
\end{center}

```

Finally, an example of complete replacement.



```

\newcommand{\mystery}[1] % #1 = name from to[lamp,color=white,n=#1]
{
\draw[thick] (#1.e) -- (#1.n) -- (#1.w) -- (#1.s) -- cycle;
\draw (#1) node{\large ?};
}

```

```

\begin{center}
\begin{circuitikz}
\draw (0,0) to[lamp,color=white,n=X1,o-] (0,2);
\mystery{X1}
\end{circuitikz}
\end{center}

```

Note that the connectors are also invisible (color=white), so it's not perfect.