

Spark Robotic vs. CandCNC Bladerunner

Which control package is right for you?

Both the **Spark Robotic** and **Bladerunner** electronics packages use an integrated, digital torch height control, ohmic touch off, and the 620 in-oz Moons stepper motors. However, they handle the touch-off sequence differently which allows them to have different features.

The **Bladerunner** uses an Ethernet cable between the Linux based computer and controller. The touch-off sequence is performed using a special post processor in Sheetcam which provides all of the g-code required to touch off the material before starting a new pierce. This gives the controller full access to the Z movements which allows the control package to also be used for routing applications. The downside of this system architecture is that it is more difficult to recover from a partially cut part. If the torch goes out halfway through a cut, you must scroll through the g-code to find the nearest touch-off g-code or restart without a touch-off sequence.

The **Spark Robotic** electronics package uses a USB cable between the Windows based computer and controller. The touch-off is performed by the torch height controller and not by using g-code. This allows you to simply click on the picture of the part to recover from a partially cut part. The torch height controller then touches off and continues cutting from any point on the cut path. The downside of this system is that the g-code does not have full control of the Z axis so the control package cannot be used for routing.

The Z axis is purchased with the control package from each company. Both use a 16mm ballscrew and linear rail. The Bladerunner uses 20mm chrome hardened shafting with recirculating ball sleeve bearing where the Spark Robotic uses 20mm profile rail with recirculating ball bearing blocks. The torch mount on the Bladerunner is rigid or option magnetic breakaway where the Spark Robotic Z axis uses a collision detection torch mount with proximity sensors.

Cost comparison for a 5x10 table with 25' leads and a new computer. (4/6/19)

Spark Robotic has a package price for everything at **\$2995**

CandCNC Bladerunner with same options **\$3582**

Bladerunner 620-4 "Most Popular Bundle" \$2585

25' motor leads \$42

Linux mini PC \$275

Super Z with magnetic breakaway \$625

25' Z cable \$55

NOTE: The Bladerunner can also be purchased with a full automation bundle. This allows you to change all setting of a Hypertherm plasma cutter from the computer screen. This also requires that the RS485 card be purchased with or installed in the plasma unit. This option is not available with the Spark Robotic package.