

When the Height Triggering is selected, the sensor will only flash when the sample is within in the selected range for Min and Max Height. If the sensor is outside this range, the sensor will not flash, and no readings are taken. When the Height Trigger is set to "None", the sensor will flash regardless of the Min Max Height settings. Height triggering is most useful in PIECE mode, as the sensor will begin measurements when the edge is detected. Regardless of the setting, only color measurements that fall within the boundaries set by the min/max height and color tracking are used in determining the color measurement. When External Triggering is selected, the external trigger must be installed.

Height Trigger has 2 functions when turned ON. First, the sensor will not take a measurement (flash) when Height triggering is enabled and the red laser distance sensor reading is outside the MIN/MAX parameters that are set in the RUN CONFIG. Secondly, It provides synchronous readings with the edge of a product when measuring in piece mode. This allows the sensor to start measurement as soon as the edge of a product is detected.

When Height Triggering is turned OFF (none) then the sensor flashes asynchronously and then determines if the color measurement was within the MIN/MAX range. If the distance measurement is outside the range, then the color measurement for that flash is discarded and not used in the final average of measurements for the time interval that is selected.

In summary, if External Trigger is set to NONE, then the sensor will flash asynchronously and individual color readings (each flash) will either be used in the average color measurement interval or it will be discarded if it falls outside the Min/Max distance range determined by the Run Configuration. If the External Trigger is set to "Height Triggering", then the sensor will flash synchronously when the height sensor reading is within the Min/Max range.

You may also think of it as the Triggering determining when to flash. If it is turned to "NONE", the sensor will always flash at 5 flashes/second during the entire reading interval. If external triggering is set to "Height Triggering" then the sensor will only flash once the distance sensor has determined that the samples is within the MIN/MAX height and only then will the sensor flash. It will not flash for out of distance measurements.

In either case whether the sensor discards reading that were taken that are out of range, or if the sensor does not take readings (flash) when out of range, the color measurement will be about the same.

If you wish to include all measurements that are within the full height range limits of the sensor, then set the background to 6 inches (150 mm) the minimum to 0 and the maximum to 4 inches (100 mm). This ensures that all measurements taken will be included in the average color measurement as set by the interval.