Feed-roller repair instructions

This tutorial highlights the process for resolving a loose feed-roller on your USCutter MH series vinyl cutter.

**Tools needed:**
- Philips head screw-driver or power drill
- Standard (flat) screw-driver
- Needle-nose pliers or 10mm wrench

**Average time to complete process:** 35mins.

This tutorial assumes that previous troubleshooting with a USCutter Technical Support Representative has determined your feed roller to be loose. This is a hardware only issue and can be assessed and resolved without the use of any software. The following image represents a Test Cut sent from the cutter (which should produce a star inside of a square) using the plotter pen on a unit with a loose feed roller:
The image to the right is what the cutter should produce if it *is* functioning correctly.

To resolve the issue and get our cutter back to proper working condition we need to unplug the power cable, the USB cable and remove the cutter from the stand. Place it on a table appropriate for performing this type of repair work.

If your feed roller is loose, you’ll notice some “play” in up and down motion of the roller when you press down on it with your hand (as pictured bellow). Your feed rollers should never be able to move in any direction other than to roll smoothly forward or backwards. For our example we’re going to focus just on the left side but the cause of our issue could be in one of three different places.

The feed rollers are held in place by three set-screws which push up from underneath, inside the cutter. The set-screws push against a bearing which the feed rollers use to spin, and the bearings in-turn, push against a plastic spacer.
The plastic spacer is the piece that keeps the feed roller from rubbing against the underside of the “cut deck” or “bed” of the cutter.

Step #1 - Take the bottom off the cutter. This can be done by rolling the cutter onto its back removing the four plastic feet and all the perimeter screws holding the bottom plate on. Your bottom plate may or may not be split in two pieces. The entire bottom of the cutter needs to be removed.
Step #2 - Tip the cutter back to the up-right position and remove the end cap screws. Remove the left side end cap from the cutter.

Step #3 - Remove the drive belt from the feed roller motor and set it aside. This can be done by simply pulling the belt away from the cutter and rolling the gear. The belt will work its way off as you roll the gear.
At this point you *might* be able to see the plastic spacer protruding from the feed roller insertion point.

If so, you will need to realign the plastic spacer so that it is properly centered in the feed roller opening. This will require you to use a screw driver to nudge the spacer back into position.
If you don’t see the spacer sticking out at all, just ensure that it is properly centered over the top of the bearing. Remember, the plastic spacer just sits on top of the bearing and it can easily slide around to one side, if the bearing set screw is loose underneath. When properly placed, it will look just like this one:

(The spacer pictured is from the center bearing position on the cutter)

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**Step #4** - Tighten the bearing set screws. **Roll the cutter onto its back again.** You will see three set screws holding your feed roller in place against the plastic spacers. Each of these is gold/copper and have a locking nut. The nut keeps the plastic housing in place and the set screw itself pushes up against the bearing on the other
side. This is what yours might look like if it is loose:

Make sure the plastic spacer is properly aligned on the top side of the cut deck and then tighten up the set screw. The screw on the far left side will likely also have a ground wire like the one in this picture. Once you have it tight, roll the feed rollers back and forth by hand. They should roll smoothly without rubbing or scraping. If you detect any rubbing, loosen the set screw a bit.

**Step #5 –** Tip the cutter back up-right and send a test! If the test cut (star in a box) looks good, you’re ready to start putting everything back together again!