Puppeteer 2-axis maintenance.

1. You'll need a wrench size 14 and a Allen tool size 5.

2. Separate the two bows. And turn the bow around and with the thumb check each of the outer roll bearings. IF you can freely roll it, its too loose and you need to tension it. IF you cannot rub it at all, it might be too tight and cause friction. Perfect fit is when you can roll it with your thumb but its still with a bit of friction against the bow.

3. Each bearing shaft has a small dot, usually placed pointing forward on each axis. This is very individual to each bow though. The idea is that the dots on left and right side should be mirrored causing even pressure on both sides of the bow.

4. Generally, a dot that points inward to centre (left image) will be too loose, and a dot pointing outwards (right image) is too tight. This is highly individual to each bow though. But rotating the dot on the hexagon shaft inwards brings the bearing closer to the bow, and vice versa.

5. After finding the bearing that is too loose (rotating freely without and contact to the bow), take the wrench, and loosen the M8 flat head flowcine screw a little until you can move the shaft.

6. You can add some medium/mild loctite on the M8 thread, to hinder the shaft from moving in the future.

7. Or you can just directly move the hexagon shaft after loosening the M8 screw a little, and then tightening it back again. All screws are loctited at assembly, but there is a lot of vibration in each bearing assembly. Secure the M8 tightly!

8. Be sure to check the flat heads under each bow so they are tight. If not add some loctite and tighten them again. These are also getting tremendous amount of vibration.

9. After each use. Always use a micro fibre cloth to clean the bows AND the surface on each bearing. The bows are specially anodized to ensure smooth motion, but they need cleaning more or less after each day of use, so wipe them off as much as possible. If grit/dust gather on the bow, they are transfered to the bearing outer surface, and you will feel a little rough motion, so therefor also always clean the bearings with a cloth as well!