

MODIFICATION OF ROTO-VARI-PITCH UKULELE for linear playing



Fig 1, Linearized Music Notes on a 6 in. scale.

Ref. 1-Instructable "Vari-pitch string music player" dated Jul.7,2011 by Mystic

Ref.2.-Instructable "Rotating Vari-Pitch Ukulele". dated Aug.22, 2011 by Mystic.

Modification to above Referred instruments:

Some players wanted to vary the pitch of the stretched strings in a linear fashion rather than by rotating a wheel. Ref.1 uses linearity but the stock is about 24 inches long and the notes increase from right to left counter to a piano which is standard. To produce Left to right note increases we had to reverse the direction. In doing this we also noted that the instrument is now very compact and easy to hold.

To modify the instrument it is only necessary to replace the hand rod Ref.2 with a nylon non-stretchable string and wind it around the drum circumference for 180 degrees and pass it through a hole to a slider on a rod or 1/2 in. square wood support about 7 inches long. The lowest note on string number one is G 3 notes lower than Mid-C note. The second string is tuned to E [5 notes down]. This spool of 2.5 inches diameter then allows a linear distance useable to $1/2 \times \text{Pi} \times D$. and can generate notes to F over hi C.

Final Note- If a small wood extension is glued to the end of the rod then the instrument can be played by squeeze action as demonstrated in Fig 1. above.

The slider mechanism here is a piece of 1/2 in. square x 1 in. long aluminum with a small .063 Dia. hole at the bottom to anchor the nylon fish-line. A wood handle is glued to the top. The main build out is same as the Ref.2 above except we use only two stretch-strings.

Use a Casio or Piano to mark the notes on the wood slide support. Mystic 9-5-11 .