Janko/ Uniform Keyboard Project (DIY)

1) My above shown Synth's white keys are exactly 22mm wide; hence the octave has 162mm width. Since each row of Janko octave has only six keys, my Janko keys had to be 26mm wide; allowing for 1mm spacing. From this info you are able to customize/ calculate your specific Janko key-top size. The length of Janko keys is 30mm ensuring light action. (Albeit converting a Synth keyboard to Janko doesn't offer greater handspan, it offers more key space (instead) and all other advantages of the Janko concept.)

2) As paint I used wood stain for black keys and polyurethane for shine and durability. Inserting tiny nails helps to paint them easily; then drop them onto a grid to allow drying horizontally.

3) To bond the wooden support pieces (to be glued onto white keys 30mm high; black keys 11mm high) to Synth's plastic keys I used heated glue & glue-gun. Preheating the wooden part (to be put onto

the hot, liquid glue) with a hair-dryer gives a better bond. To glue the Janko key-tops onto the wooden support pieces I used UHU universal glue, because it gives me time to adjust the pattern.

Note: Reverting to your traditional keyboard (e.g. if you change your mind of want to sell your Synth) is no problem. Simply heat the glued on wooden bits with a hair-dryer and wipe the glue with a rag or gently scrap the heated glue with a piece of wood. Then wipe the keys with a clean rag dipped in some alcohol/ metho perfectly clean!

4) I used a mitre saw (see photo) for straight cuts. Once the size is adjusted keep on sawing them all in one go!

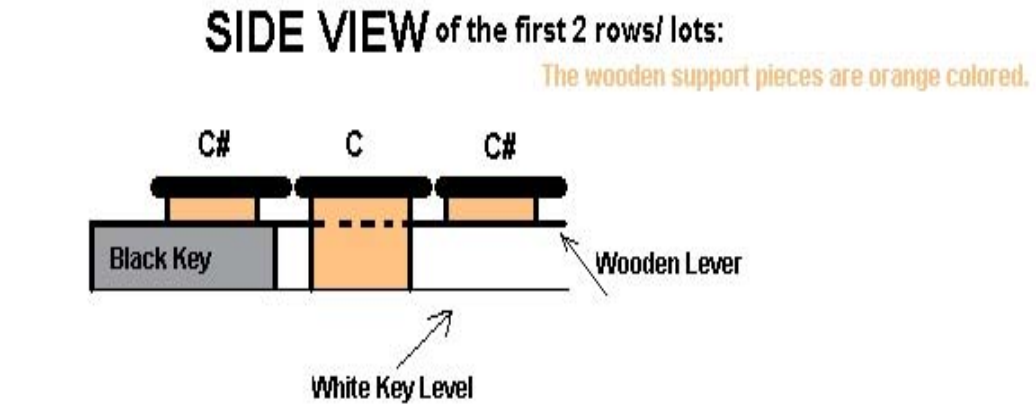
5) Albeit the wood I got was about 10% +/- out of the ordered measure, because each piece was cut by hand and eyesight. This means I either tailor each support piece individually or I put up with 10% +/- horizontal level variation of the Janko keybd. Maybe you can get 100% machined wood sizes, then you won't have this problem.

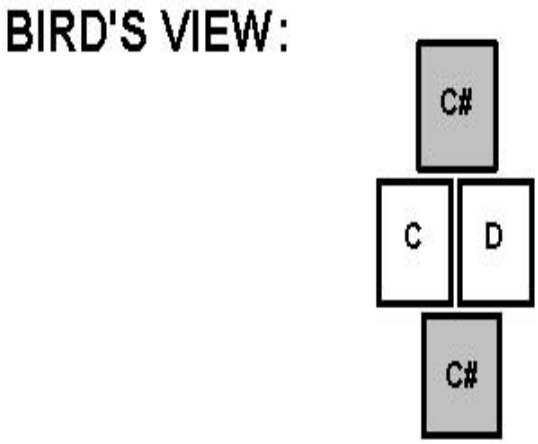
Buying wood:
Since the white keys of my Synth are 22 mm wide, I ordered **3m of each** of the following wood sizes (Note: you might need to vary your sizes according to your Synth key widths and keying depth?):

i) **5mm x 10mm** hardwood for levers; softwood might bend.

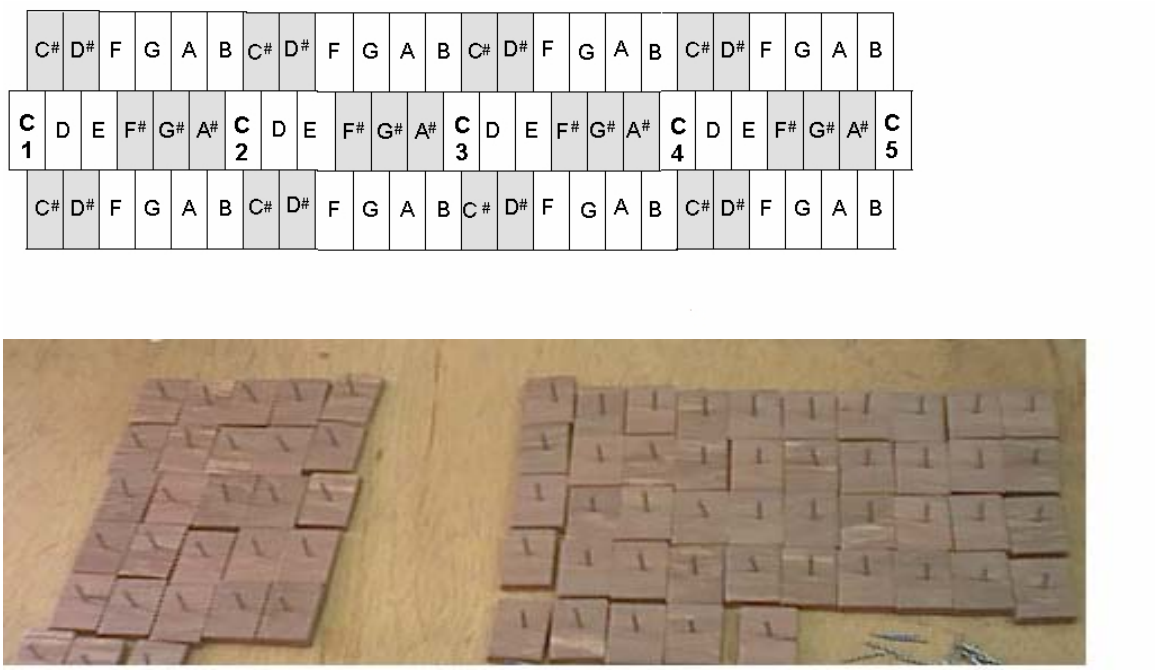
ii) **5mm x 30mm** normal wood for Janko key-tops

iii) **10mm x 20mm** normal wood for support pieces pieces (to be glued onto white Synth keys 30mm high, black keys 11mm high; again, all depends on your Synth's key depths).



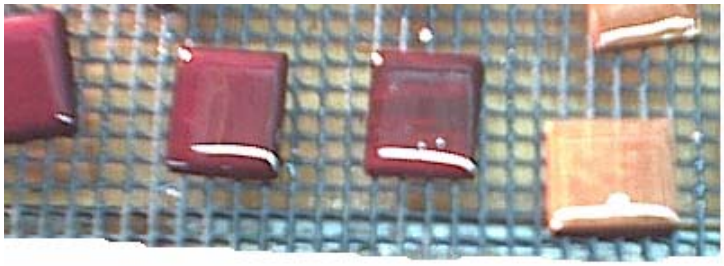


Below is a schematic of a (4 octave & 3 row) Janko keyboard. Feel free to customize your size. I only use four octaves (plus one key at the top; top C) for melody play, because the lowest octave is reserved for live-styler accompaniment. Ideally, this octave should be structured (like the bass of an accordion) in the circle pattern of quints to avoid confusion. I'm still working on it… how to implement it in this octave space.

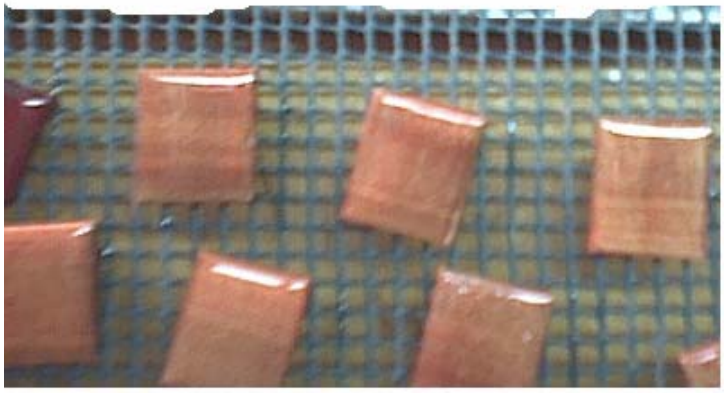


Here you see the Janko key-tops ready prepared (sanded & nailed) for painting!

Here you see the wooden levers and support pieces glued in position onto the Synth keyboard.

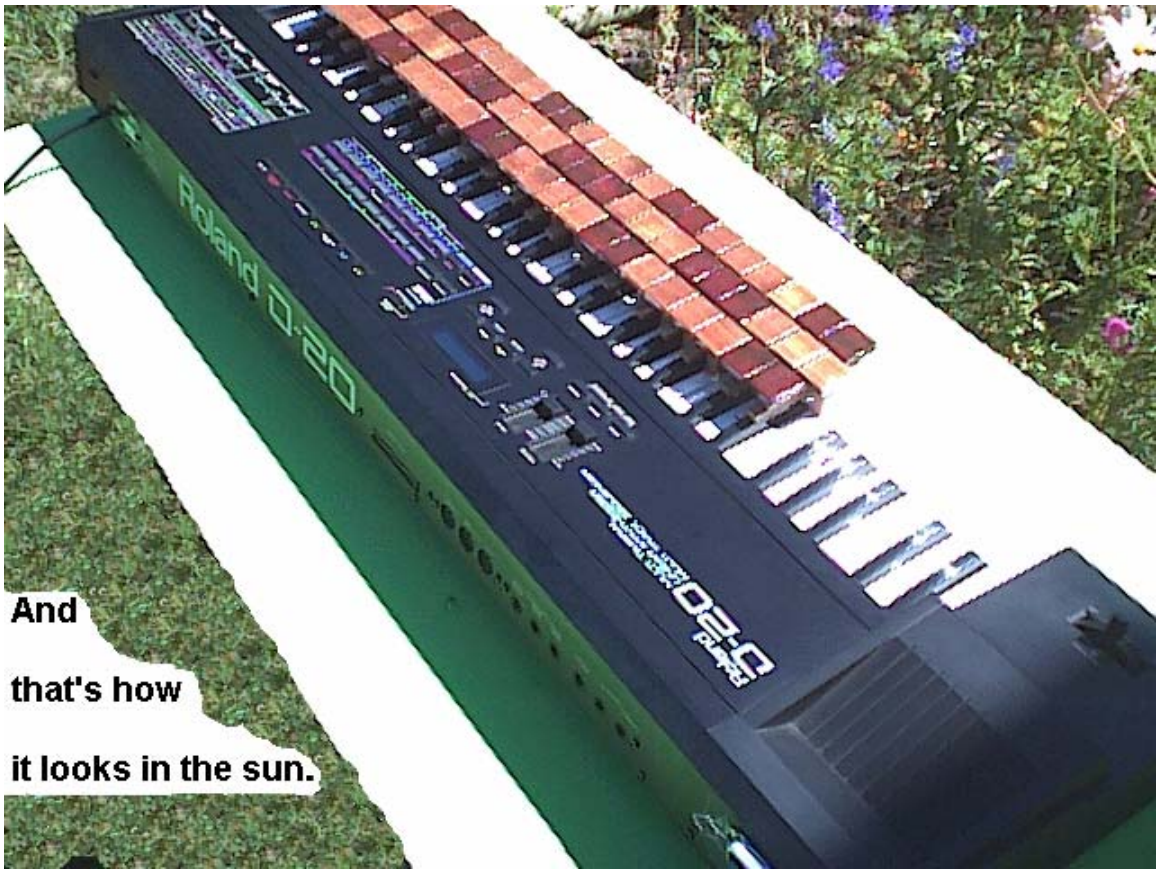


The nail is in the grid (underneath) and the key top is horizontal while drying the paint ! I used 'Rosewood' ink to define the black keys and leave the natural wood color to define the white keys. Why buy expensive black and white polyurethane paints?




My Glue-Gun


My Mitre Saw...
(China Flavor
brand)



To liberate you entirely from theoretical chores of tonality changes you would need to play your Live-Styler accompaniment via a special 'Circle of Quints' button keyboard, such as used in the bass part of accordions.
Mechanically it is almost impossible to construct. If you are not versed in electronics the only option you have is to accomplish this task electro-mechanically; involving
Solenoids, bit of soldering and wiring. Ask me for some ideas on that.
You could even make the accompaniment in the lowest octave of your Synth interchangeable; i.e. swing in a removable Janko octave or the Quint-Circle buttons.

Finally, below a surprise for incurable skeptics…

For those of us worried about gluing anything permanently onto their Synth keyboard, I designed a removable Janko/ Uniform keyboard made from 10mm strips of 'Formica' (or kitchen table topping, onto which you can glue the Janko/ Uniform keys.
To attach it you need brackets attached/ glued to the bottom of your Synth.