

NT BEST Shop Projects
From Tom Bean NTBEST
By Diane Getrum

These projects give you a chance to teach shop skills and safety while making fun toys!
They make great first or second meetings.

The Film Canister Cannon From Science Toys (scitoys.com)



These cannons use a piezoelectric igniter and binaca breath spray to launch a film canister with explosive zeal! As your students build the wooden base you can check them out on the power tools you plan to use and cover shop safety. We built this project in two steps. Returning team members came the first day to build their models. Each member became an expert in one step of the process. On day two we invited the new team members to join us in the shop. As they moved from station to station the “experts” taught tool use and passed on safety tips and expectations. Each cannon takes 2 to 3 hours to complete, depending on the skill of the builder. I picked up the film canisters from the Wal-Mart photo center. Buy the piezoelectric igniter from Science Toys. The link is given below.

http://www.scitoyscatalog.com/Merchant2/merchant.mvc?Screen=CTGY&Store_Code=SC&Category_Code=FCC

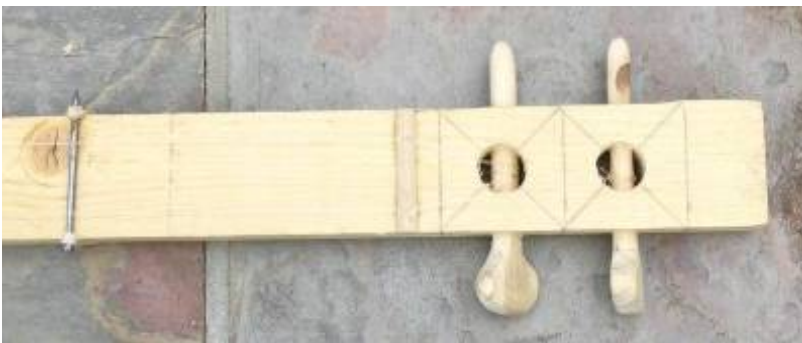
Shoe Box Guitars



Develop wood working skills as you shape a square peg on the band saw and sand it to fit a round hole! Figure out what those marks between the inches on the ruler are while you lay out the frets on a piece of 1X2. Learn something about resonance and pitch as you string up your guitar. Can anyone else recognize Twinkle Twinkle when you play it!



It takes good measurements and a drill press to get the peg holes to line up with the string holes.



The pegs are cut from $\frac{3}{8}$ " stock on the band saw and then sanded round to fit the peg holes. It may take several tries to get a peg that fits the hole tightly enough to hold the string.

The bridge transmits the vibration from the string to the box.
The nut raises the strings off the neck so they will vibrate.
The frets are nails held in place with rubber bands.
There will be plenty of opportunity for trouble shooting as you track down the cause of dead strings.

Find more examples of cigar box guitars than you can believe at
<http://www.cigarboxguitars.com/>

Tops!

Any novice can launch this top!



The construction of the handle uses a combination of band saw and drill press skills. Even your stubborn woodworkers will do some sanding on the handle to make it comfortable to hold.



There are a surprising number of variables that make a good top. It is a good place to experiment. Make several! Then let the wars begin!