

# Wire bending exercise

## General Rules for wire bending

- All bends in orthodontic wires are placed by the fingers, pliers are meant to hold the wire firmly and assist in wire bending.
- Always hold the plier using a palm Grip.
- Before starting to bend the wire, establish a firm grip over the wire.
- It is easier to make a bend by pushing the wire, rather than pulling the wire.
- Use proper beak of the plier to hold the wire before placing the bends.
- Precise marking is necessary before making any bends using a wire marker.

## **Armamentariums:**



**Adam's plier**



**Loop former**



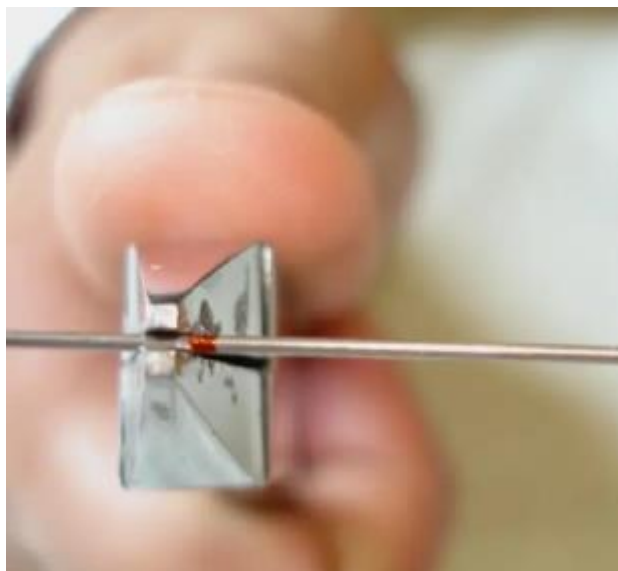
**Heavy wire cutter**

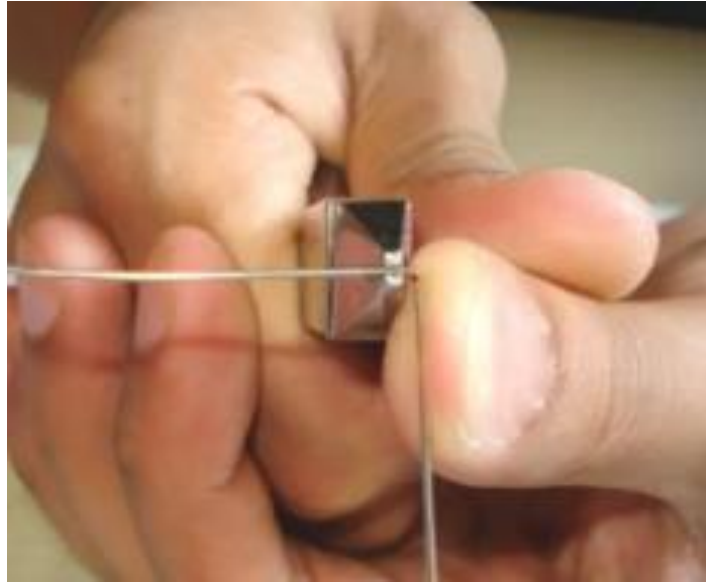


**Permanent Marker**

**TO MAKE A RIGHT ANGLED BENT;**

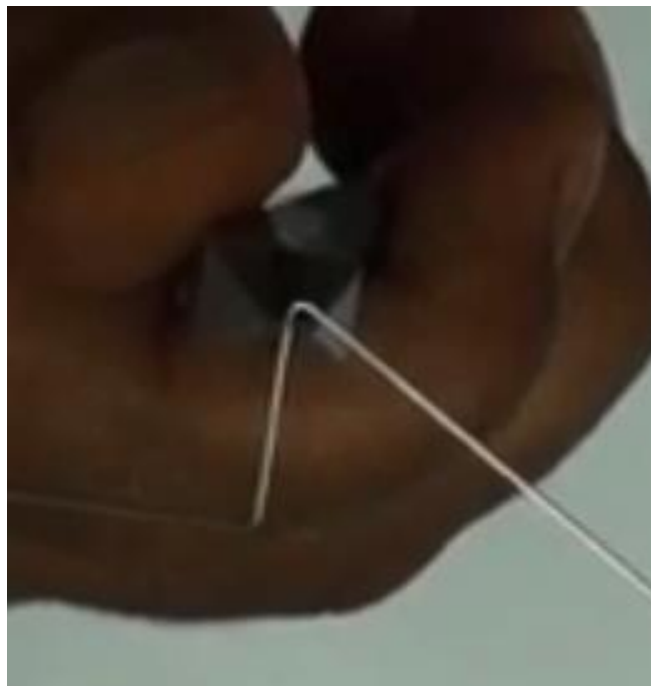
Mark the position where the bent should be made, hold the wire firmly with the plier just half millimeter (0.5 mm) before the mark, push the wire close to the plier using the thumb and forefinger.





**To make acute bends:**

Make a right angled bend, then withdraw the plier slightly away from the mark and close the angle.



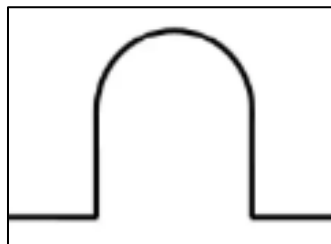
## To make obtuse angle:

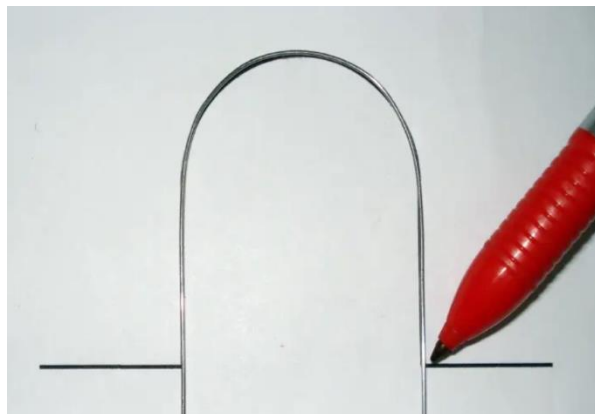
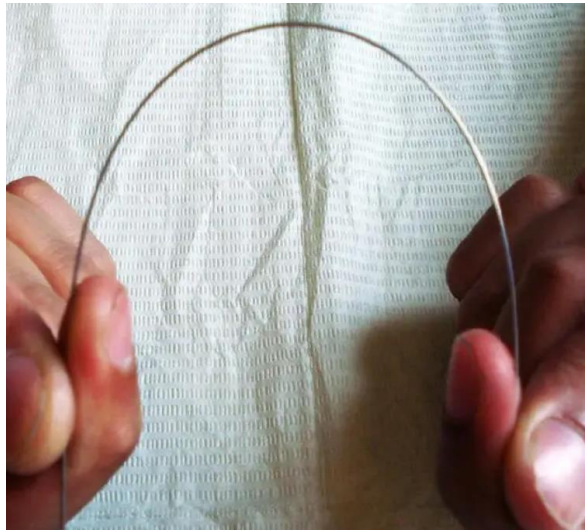
The simplest angle, the same as making a right angle without pushing the wire to the plier completely, just to approach the angle needed.

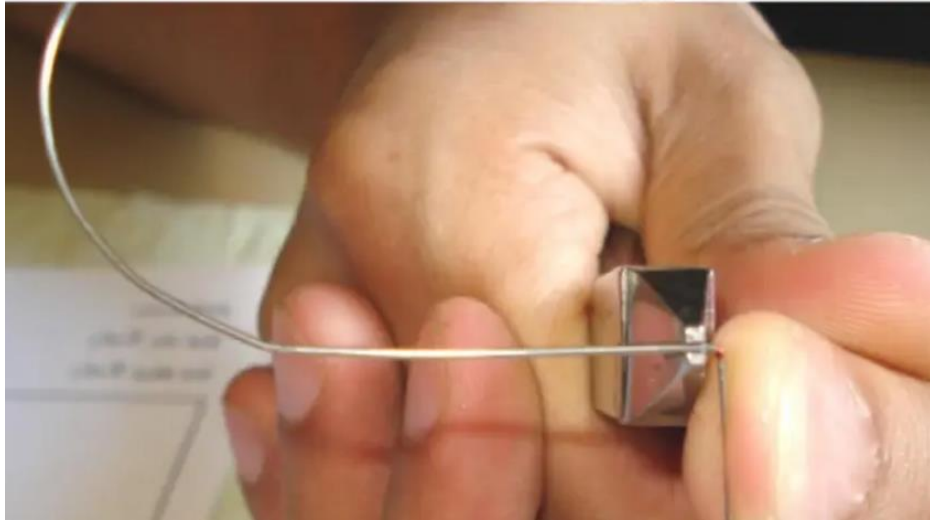


## To make a short curve bend;

- By fingers:** Hold the wire firmly with the plier and make the bend with the fingers.
- By successive bending:** Adapt the wire on the beginning of the drawn curvature , then mark the last point on the straight wire that touch the drawn curvature before the curvature changes its direction , then apply the loop former near its base on the mark and start to curve the wire smoothly around the loop former while maintaining the plane, then put the wire on the drawn curvature again, and mark the last new point on the wire that touch the drawn curvature again , then apply the loop former on the new mark and so on. Continue successive bending smoothly till the wire reach the needed curvature
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N.B ... If we want to bend the wire at a specific mark, we apply the plier just before the mark by (0.5 mm), this is done to make the bend and the mark coincident.

N.B ... If we want to cut the wire at a specific mark, we apply the wire cutter at the mark exactly and make the cut.

N.B ... Hard round stainless steel straight wires (0.7mm thickness) are used for wire exercise.

N.B ... The formed wire should be adapted on the drawn shape precisely without any deviation , the plane of the formed wire should be maintained horizontally, this is done by controlling our bends in the same plane.

N.B ... The formed wire should be held and fixed over the drawn shape by only two small pieces of adhesive plaster just at the ends of the formed wire.