

# BLOWGUN

# BACKYARD WARRIOR



[celticboar.com](http://celticboar.com)



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# **WARNING**

Some weapons in this collection may be prohibited, illegal or restricted, depending on the law in your community. Making, owning or using such weapons may be unlawful and may constitute a criminal offence!

Check with local authorities before making any weapon.

# **DANGER**

All weapons are, by definition, dangerous and potentially lethal. The information and instructions in this document are presented for educational purposes. Should you choose to make this weapon and/or projectiles, you do so at your own risk. Any damage, injury or death resulting from making or using these weapons is your responsibility.





Use common sense and caution should you attempt to make these weapons. If in any doubt, get expert advice. Always familiarize yourself with safety precautions for the weapons you are dealing with. Always read and follow safety instructions before using any hand or power tools. Exercise caution at all times. As far as the methods and techniques mentioned in this document are concerned, all statements, information, and advice given are believed to be accurate. However, neither the author, copyright holder, nor the publisher can accept any legal liability for errors or omissions.

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# QUICK REFERENCE

## TYPE

The weapons in this book are grouped by the way they work and how they are used. Many of them can fit into multiple categories, while others can be modified into another category.

	<b>Edged</b>	Weapons with sharp edges such as swords and daggers.
	<b>Mêlée</b>	Weapons used in hand-to-hand combat.
	<b>Explosive</b>	Weapons that rely on combustion or chemical reactions to eject projectiles, missiles and shrapnel.
	<b>Electromagnetic</b>	Weapons that generate an electrical pulse. They can also be used against electronic equipment.
6	<b>Projectile</b>	Weapons that launch projectiles such as darts, missiles and arrows at a distance.

## RANGE

This is the maximum effective distance of a weapon. Generally, the greater the range, the poorer the accuracy.

▶▶▶▶▶	Long-range projectile weapons that can cover a park or more
▶▶▶▶	Medium-range projectile weapons that can cover a sports field
▶▶▶	Short-range projectile weapons that can cover a small garden
▶▶	Weapons that extend the range of the human body like clubs and swords
▶	Typically mêlée weapons that enhance physical contact with the target

## ACCURACY

The accuracy here is based on how close a weapon can repeatedly strike a target at the suggested range. For example, a **Flatbow** with a range of 100 yards: A good archer standing 100 yards from a target can keep the arrows within an area about the size of a sheet of paper. This weapon therefore gets three bull's-eyes. Another way of looking at it is that if you are at the recommended range, your target should be at least as big as the item mentioned here.

◎◎◎◎◎	Guaranteed hit
◎◎◎◎	You could hit a tennis ball
◎◎◎	You could hit this book
◎◎	You could hit a poster
◎	You need something pretty big to make a sure hit

## ENERGY

All weapons can be deadly in the hands of an expert or a fool. Even a plastic ballpoint pen can blind a victim if you poke it in their eye. The energy levels here are based on how much force the weapon can generate.

☠☠☠☠☠	Deadly	Potentially deadly. Often used in martial arts or sports.
☠☠☠☠	Extreme	Could cause permanent damage. Advanced hunting weapon.
☠☠☠	Heavy	Could draw blood and kill rodents. Light hunting weapon.
☠☠	Moderate	Could stun shock or hurt, temporarily incapacitating the target.
☠	Light	May cause bruises, pricks or minor pain.

## DAMAGE

Projectiles are treated a little differently than weapons because the damage they can cause is not only related to the energy of the weapon firing them, but in their design as well. For example, a **Slingshot** (energy stays the same) can fire a ping-pong ball (no damage), a stone (moderate damage) or a **Barbed Dart** (extreme damage). By combining the energy rating of a weapon and the damage rating of a projectile, you can determine the total potential destructiveness.

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## COST

Cost is based on the simplest version described. Naturally, you can spend a fortune in enhancements that are either functional or decorative, or save a bundle by begging and borrowing from friends. That choice is yours.

\$\$\$\$\$	Choose between a PlayStation or this weapon.
\$\$\$\$	You'll have to sacrifice those new shoes to make this.
\$\$\$	About the same as taking a date to the movies.
\$\$	It'll cost you about as much as a burger, fries and cold drink.
\$	Just scrounge for everything you need.

## DIFFICULTY

Difficulty depends on a number of things such as the skills you need, availability of materials, the precision required, or competency with specialized tools. This will give you a rough idea of how much of a challenge it will be to make the weapon or projectile

✂✂✂✂✂	Requires advanced tools, skills, or materials that need special order.
✂✂✂✂	Requires specialized tools. May require assistance from professionals.
✂✂✂	Requires some skill, care and experience.
✂✂	Requires typical home hand tools.
✂	Anyone can make this.

# BLOWGUN

Type  
6

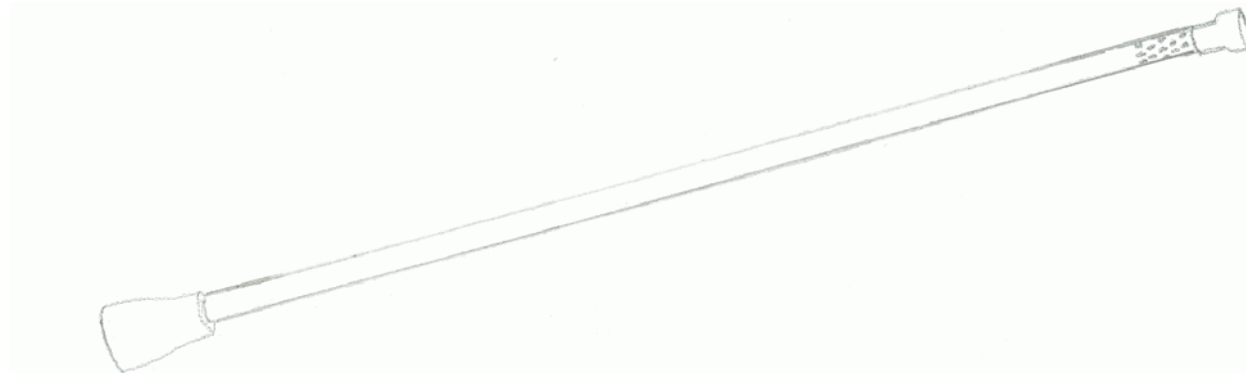
Range  
▶▶▶▶

Accuracy  
◎◎◎◎

Energy  
☠☠

Cost  
\$

Difficulty  
✖



## BACKGROUND

### DESCRIPTION

The blowgun is the original full-size peashooter. It is simply a long piece of pipe used as a barrel to propel a dart. The power to shoot the dart comes from air expelled directly from the lungs, which has lent the weapon the nickname “breath of death.”

It has an accurate range of about 50 yards, making it suitable for hunting birds, squirrels, rabbits and monkeys. The dart should be light and form an airtight seal in the barrel so that air does not leak past it. The 5’ – 20’ blowgun was originally made from cane, bamboo, or other hollow-core wood, and even drilled hardwood, and much effort went into ensuring the barrel was carefully smoothed. Today, smooth manufactured pipes are readily available.

It remains a popular hunting weapon because it is silent, does not require any body movement, and it can be used in restricted spaces.

### HISTORY

It appears the blowgun dates back to about 200 CE. The earliest evidence comes from Chinese manuscripts of that time, while the oldest actual weapon, dated to the middle of the first millennium, was found in South America. It has predominantly been used for hunting small game in heavily forested areas such as Southeast Asia and South America, where it was much easier to use than the bow and arrow. Its use spread to North America, Africa and the Middle East, and it was introduced to Europe by the Arabs in the 14<sup>th</sup> Century. A few hundred years later it became a powerful weapon in the Japanese assassin’s arsenal.

Due to the limited power of the blowgun, the darts were often poisoned. Probably the most infamous poison is Curare, an Amazonian plant extract that paralyzes muscles and leads to death when the heart succumbs. The most lethal poison known is that of the Poison Dart Frog, and it was used by hunters further north through Central America. In Japan, Puff Fish poison was used.

Most cultures had taboos against using blowguns in warfare, but it was used against the Conquistadors, and as recently as World War II, against Japanese soldiers in Malaysia.

## TODAY

Blowguns are still used for hunting today, both for sustenance and for sport. Its use in sports is also growing. France has held regular sporting events for over a century, using a very ornate steel blowgun called a *sarbacane*. In Japan the International *Fukiyado* Association is attempting to standardize the sport, and in the United States the National Sport Blowgun Association is growing rapidly.

The blowgun has also crept into paintballing as an effective stealth weapon.

Blowguns are also used professionally by veterinarians and game wardens as a means of administering tranquilizers.

## HOW IT WORKS

Speed and distance are completely dependent on pressure. Pressure is a direct function of the amount of air supplied and the volume of the tube. Other important factors include the seal of the projectile, and how fast the air is supplied.

To calculate the volume of the tube, first convert the caliber into inches, and then divide this number by two; multiply the result (the radius) by itself; multiply this result with 3.14 (pi); then multiply the result by the length of the tube. Make sure that you are using the same units (i.e. if you are converting the caliber to inches, use inches for the length of the tube also).

A typical adult can easily pressurize 25 cubic inches. A good entry-level hunting tube would be .50 cal – 6' long (14 cubic inches), while a more advanced hunting gun would be .625 cal – 7' (25 cubic inches). This is probably the largest you should go.

A child can pressurize about 6 cubic inches (.40 cal – 4' long).

Another point to remember is that the longer the air exerts pressure on the projectile, the farther it will go and the more accurate it will be. It is therefore preferable to have a smaller caliber in exchange for a longer tube. As with everything, there is a tradeoff: if the tube is too long, it will start to bend under its own weight, resulting in a loss of accuracy and power.

A projectile can travel up to 200 feet per second.

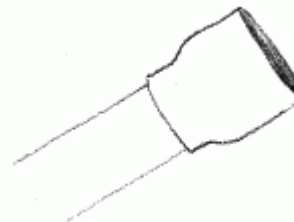
## CONSTRUCTION

Materials	Tools
4 – 7' of ½" pipe (copper, PVC, ABS, electrical conduit)	Pipe cutter or hacksaw
1 ½" to ¾" reducer (to match pipe material)	
1 Rubber or plastic bathtub faucet shower attachment	
Duct Tape	

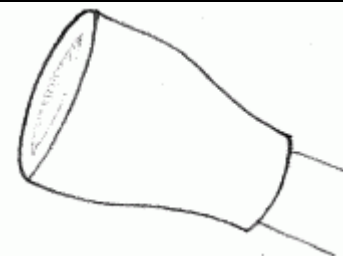
## INSTRUCTIONS

Cut the pipe to length or leave it the length you have. I suggested the ½" pipe, but you could use any diameter you like. Select the diameter that matches the type of projectile you plan on shooting.

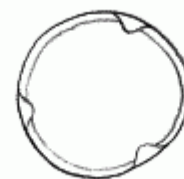
Slip the reducer on one end. This simply serves to protect the tip from getting bumped or warped, which will prevent the projectile from escaping. If you are using copper you can solder it in place, and if plastic, you can use the appropriate solvent cement. I simply wrap some duct tape around the joint.



Push the faucet attachment on the other end. You could use a 1" reducer if you like (or even leave it alone altogether), but I prefer the rubber because it gives a nice seal around my lips. The attachment also has an inside diameter smaller than the pipe, which stops projectiles from accidentally getting sucked into my throat when I take a breath.



If you don't use this, I highly recommend that you bang this end of the pipe with a screwdriver to restrict the opening a little.



## ENHANCEMENTS

Despite it's simplicity, there is lots of work being done to enhance blowpipes. In the first illustration, you can see that the muzzle has holes drilled into it. This makes the blowpipe look a lot more dangerous, but I haven't found any solid research to show that this will improve the accuracy or range of the weapon.

My favorite enhancement is to wrap the blowpipe with camouflage tape (can be found in hardware stores and even Wal-Mart).

## **PRACTICE**

The blowgun will fire any kind of projectile as long as it fits snugly in the barrel. Apart from the darts and paintballs mentioned earlier, you could try shooting marshmallows, earplugs, wads of paper, and ice darts (icicles).

- Press the dart into the mouthpiece of the blowgun until it is snugly in place and pointing towards the muzzle.
- Take a deep breath in, and then place the mouthpiece over your mouth.
- Aim at the target.
- Exhale hard and fast as if you are blowing out a candle.

## **WARNING**

Be careful not to inhale while the loaded blowgun is by your mouth. You could suck in the dart and choke on it. It sounds stupid, but you'd be surprised at how easily this can happen.

# TUFTED DART

Type 6 <b>Projectile</b>	Range ▶▶▶ <b>2-10</b>	Accuracy ◎◎◎ <b>5-10</b>	Damage ☠☠☠ <b>Extreme</b>	Cost \$ <b>\$0-10</b>	Difficulty ✖ <b>Ratter</b>
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## BACKGROUND

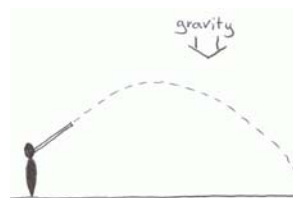
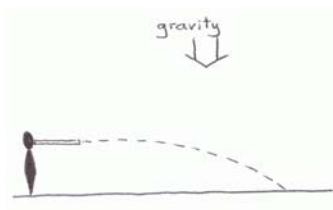
### DESCRIPTION

This is a classic projectile for use with blowguns, and is quite suitable for small game.

### HOW IT WORKS

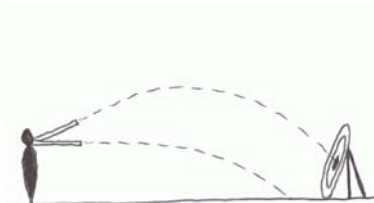
Ballistics is the study of projectile motion. If you discount the wind outdoors, once the projectile leaves the barrel of a weapon the only forces acting on it are gravity (always drawing the projectile back to earth), and drag (the friction of air slowing it down).

A projectile therefore always follows a parabolic (curved) trajectory.



Gravity always acts with the same force (about 33 feet per second), so if you are 6' tall and hold the barrel horizontally, the projectile will always touch the ground 1/6<sup>th</sup> of a second later, no matter how fast it is traveling. The speed of the projectile only determines how far it will go before the 1/6<sup>th</sup> of a second is up.

This is why blowgunners and archers aim upwards when trying to hit a distant target.



## CONSTRUCTION

Materials	Tools
1 fish hook	Pliers (2 pair) Scissors Lighter (or propane torch)
Thread	
Feathers (alternative includes lots of sewing thread cut to length)	
soldering wire	
Glue (any kind, but thick glue needs to be watered down)	

### INSTRUCTIONS

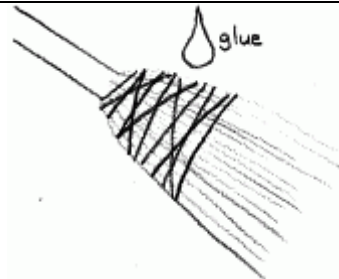
Straighten a fish hook by holding it with pliers in one hand and heating the bend with a lighter. When it is orange or red, grab another pair of pliers and unbend it.



When it has cooled down, wrap some soldering wire around the mid section.

Get some feathers and cut off the fine, fluffy bits. Gather these bits all together and line them up. If you squeeze tight, the diameter should be a little smaller than the barrel you are going to use.

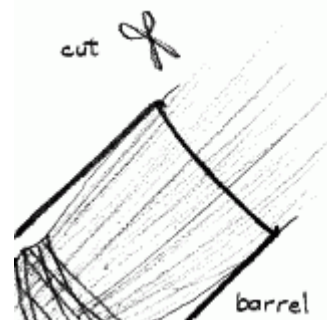
Spread them all out around the fish hook so that the ends just cover the soldering wire. Start wrapping the thread tightly over the feathers along the mid section until everything is firmly in place.



Add a little bit of glue (water it down so that it penetrates all the feathers) to the mid section.

When the glue is dry, push the dart partially into your barrel gently until only the stray feather stick out.

Cut these off along the end of the barrel.



### WARNINGS

These hooks are extremely sharp, and because they are barbed, they can cause aggravated injury!