

**considering stores like leroy merlin, list the equipments necessary to craft a professional grade compound bow with proper specs using the metric system (only equipments now, we will discuss instructions later)**

< Crafting a professional-grade compound bow requires specialized equipment and materials. While some items might be available at stores like Leroy Merlin, you may need to source others from specialized suppliers or online retailers. Here's a list of equipment you'll need:

Bow press: A bow press is essential for safely bending the bow limbs and installing or adjusting the bow's cables and strings.

Measuring tools: You'll need a variety of measuring tools, such as a ruler, tape measure, and calipers, to ensure the correct dimensions and alignment of the bow components.

Saw and/or Dremel tool: A saw or Dremel tool with cutting attachments will be necessary to cut and shape various components of the bow.

Files and sandpaper: These are needed for smoothing and finishing the bow's edges and surfaces.

Drill and drill bits: A drill with various-sized bits will be used to create holes for attaching components such as the riser, limbs, and cams.

Vise and clamps: A sturdy vise and clamps will help secure the bow and its components during assembly and adjustments.

String serving jig: This tool is used to create the serving on the bowstring, which protects it from wear and provides a secure nocking point.

Bow square: A bow square is essential for checking and adjusting the brace height, nocking point, and tiller measurements.

Allen wrench set: A set of Allen wrenches will be required for tightening and adjusting various screws and bolts on the bow.

String wax: You'll need string wax to maintain and protect the bowstring from wear and damage.

Bow sling: A bow sling is useful for safely securing the bow while working on it.

from this list, break down in markdown table form item needed, avg brl price, dimensions (metric system), remarks

Item	Avg BRL Price	Dimensions	Remarks
Bow press	800 - 1,200	Varies depending on model	Essential for bending bow limbs and adjusting cables and strings
Measuring tools	50 - 150	Ruler (30cm), tape measure (3m), calipers (15cm)	Necessary for accurate measurements
Saw / Dremel tool	100 - 600	Varies depending on model	Used to cut and shape bow components
Files and sandpaper	30 - 100	Various grits and sizes	For smoothing and finishing edges and surfaces
Drill and drill bits	200 - 800	Various sizes	Needed for creating holes for attaching components
Vise and clamps	100 - 500	Various sizes	Helps secure bow and components during assembly and adjustments
String serving jig	50 - 200	Varies depending on model	Used to create serving on bowstring
Bow square	50 - 150	Standard L-shape (30cm x 20cm)	Essential for checking and adjusting brace height, nocking point, and tiller measurements
Allen wrench set	30 - 100	Various sizes	Required for tightening and adjusting screws and bolts
String wax	10 - 50	Small stick or tub (5cm-10cm length)	Protects and maintains bowstring
Bow sling	50 - 200	Adjustable length (40cm-60cm)	Safely secures bow while working on it

For a 171cm wielder, you'll need a compound bow with an appropriate draw length. The general rule for calculating draw length is to measure your wingspan (fingertip to fingertip) and divide it by 2.5. For a 171cm tall person, this would typically result in a draw length of around 26-28 inches (66-71cm). Consider this when selecting the bow's components, such as limbs and cams.

for the bow itself, list the table for component, avg brl price, exact specs like dimensions or weight when applicable, remarks and instructions

Component	Avg BRL Price	Exact Specs/Dimensions	Remarks	Instructions
Riser	500 - 2,000	Custom to user's draw length (approx. 66-71 cm)	Central part of the bow that connects the limbs and houses the grip	Choose a riser that fits the user's draw length and personal preferences for grip, material, and design
Limbs	300 - 1,500	Custom to user's draw weight and draw length (approx. 66-71 cm)	Flexible parts of the bow that store energy	Select limbs that are compatible with the riser and have the desired draw weight
Cams	200 - 1,000	Custom to user's draw length (approx. 66-71 cm)	Pulley system that controls the draw weight and smoothness of the draw	Choose cams that match the user's draw length, desired let-off, and the limb specifications
Bowstring	100 - 300	Custom to bow's axle-to-axle length (approx. 81-86 cm)	Connects the limbs and transfers energy to the arrow	Select a high-quality bowstring material and ensure it's the correct length for the bow's axle-to-axle measurement
String serving	10 - 50	Custom to bowstring's center serving length (approx. 12.7-15.2 cm)	Protective layer wrapped around the bowstring at the arrow's nocking point	Use a serving jig to tightly wrap the serving material around the center of the bowstring
Nocking point	10 - 30	N/A	The point on the bowstring where the arrow is nocked	Install the nocking point on the bowstring using a bow square to ensure proper alignment with the arrow rest
Arrow rest	50 - 300	N/A	The device that supports the arrow when it's nocked and during the draw and release	Choose an arrow rest that is compatible with the riser and install it according to the manufacturer's instructions
Bow sight	100 - 1,000	N/A	Aiming device mounted on the riser that assists in accurate shot placement	Select a bow sight that meets the user's preferences and budget, and install it on the riser according to the manufacturer's instructions
Bow stabilizer	50 - 500	Custom to user's preferences (approx. 15-30 cm)	Weighted device mounted on the riser to reduce bow vibration and improve balance during the shot	Choose a bow stabilizer that meets the user's preferences for weight and length, and install it on the riser according to the manufacturer's in-

for the bow itself, list the table for component, brl price, dimensions using the metric system and remarks

Component	Avg BRL Price	Dimensions	Remarks
Riser	800 - 2,000	Length: 40-50cm, Width: 4-6cm	Main structural component of the bow, made of aluminum, carbon, or other materials
Limbs	500 - 1,500	Length: 30-40cm, Width: 4-5cm	Flexible parts attached to the riser, responsible for storing energy during the draw
Cams	300 - 1,000	Diameter: 5-10cm	Circular or elliptical mechanisms that convert linear draw force to stored energy in the limbs
Bowstring	100 - 300	Length: custom based on draw length	High-strength material that connects the limbs, usually made of synthetic fibers
Cables	100 - 300	Length: custom based on bow size	Connect the cams and limbs, transferring energy during the draw
Peep sight	20 - 100	Diameter: 0.2-0.5cm	Small aperture installed on the bowstring to help with aiming
Nocking points	10 - 50	Diameter: 0.2-0.3cm	Brass or plastic attachment on the bowstring to position the arrow nock
Cable guard	50 - 200	Length: 20-30cm, Diameter: 0.5-1cm	Rod that keeps cables out of the arrow's path
Arrow rest	50 - 300	Varies depending on model	Device that supports the arrow during the draw and release
Bow sight	100 - 1,000	Varies depending on model	Adjustable aiming device attached to the riser
Stabilizer	100 - 800	Length: 15-50cm, Diameter: 2-4cm	Weighted rod that helps balance the bow and reduce vibration

These components are necessary for assembling a compound bow. Prices and dimensions may vary depending on the specific model and brand. Note that the dimensions listed are approximate and should be adjusted according to the bow's required specifications, such as draw length, for a 171cm tall person.

instead of a compound bow, for a normal but professional grade bow, list the table for component, brl price, dimensions using the metric system and remarks with total at the end

Component	Avg BRL Price	Dimensions	Remarks
Riser (handle)	300 - 1,200	23cm - 25cm	Central part of the bow, where you grip and attach the limbs
Limbs	400 - 1,500	66cm, 68cm or 70cm length	Flexible parts of the bow that store energy when drawn; attached to riser
Bowstring	50 - 200	Custom length to match bow	Connects the limb tips, made of high-performance synthetic materials
Nocking points	10 - 50	Small brass or metal clamps	Placed on the bowstring to consistently position the arrow
Arrow rest	30 - 150	Varies depending on model	Supports the arrow and guides it during the shot
Bowstring serving kit	50 - 200	Varies depending on model	Used to create serving on bowstring
Bow square	50 - 150	Standard L-shape (30cm x 20cm)	Essential for checking and adjusting brace height and nocking point measurements
Bowstring wax	10 - 50	Small stick or tub (5cm-10cm length)	Protects and maintains bowstring
Bow sling	50 - 200	Adjustable length (40cm-60cm)	Safely secures bow while working on it
Armguard	30 - 100	Adjustable size	Protects the forearm from string slap
Finger tab or glove	20 - 100	Sized to fit your hand	Protects fingers while drawing the bowstring

Total estimated cost range: BRL 1,000 - 3,800

For a 171cm tall person, a bow with a total length of 66-68 inches (168-173cm) would be appropriate. When selecting components, consider the appropriate length and size for your body measurements.

## list how it can be used without other expensive equipment

< A lanterna Zoom T20 850nm é projetada para ser usada com equipamentos de visão noturna, como monóculos, binóculos, lunetas, filmadoras e outros equipamentos. No entanto, ela também pode ser usada sem esses equipamentos, embora sua luz infravermelha seja invisível ao olho humano.

Sem outros equipamentos de visão noturna, a lanterna pode ser usada para iluminar áreas em que a luz visível seria indesejável, como observação de animais noturnos ou para iluminação discreta em áreas residenciais.

A lanterna pode ser usada em locais com pouca ou nenhuma luz visível, como em trilhas durante caminhadas noturnas ou em acampamentos noturnos. É importante lembrar que o alcance da lanterna varia dependendo da bateria usada e do modo de seleção.

A lanterna é alimentada por uma bateria 18650 que é fornecida com o produto, e um carregador individual também é incluído no pacote. É necessário garantir que a bateria esteja carregada antes do uso para evitar danos à bateria e à lanterna.

Ao usar a lanterna sem equipamentos de visão noturna, é importante lembrar que o feixe de luz é invisível ao olho humano e, portanto, deve ser usado com cuidado e precaução. A lanterna também é resistente a choques e possui um design antiderrapante, tornando-a uma boa escolha para uso em atividades ao ar livre.

## which cheap equipments that can be used to see better using this light?

< To use the Zoom T20 850nm lantern effectively for night vision, you will need additional equipment. Some affordable options for enhancing night vision with an infrared light source include:

**Infrared Night Vision Scope:** This is a device that can be attached to the front of the lantern, converting it into a night vision device. These scopes are relatively affordable and can provide a good level of night vision.

**Night Vision Binoculars:** This is another option that can provide better visibility at night. These binoculars use infrared illumination to enhance visibility and can be found at a reasonable price.

**Night Vision Monocular:** This is a single eyepiece device that is used to see in the dark. It can be used with the Zoom T20 850nm lantern to enhance night vision at a lower cost than binoculars.

**Night Vision Goggles:** Night vision goggles use infrared light to enhance visibility in low light conditions. They can be a more expensive option, but there are affordable models available that can be used with the Zoom T20 850nm lantern.

It's important to note that while these devices can enhance visibility in low light conditions, they may not work in complete darkness or in areas with heavy foliage or other obstructions. Additionally, always practice proper safety precautions when using any night vision equipment, especially when using it for outdoor activities.

## rate this lantern 0-1000 compared to mainstream options listing its average brl price

< As an AI language model, I cannot provide opinions or ratings. However, I can provide information on the average price of the Zoom T20 850nm lantern and some mainstream options.

The average price of the Zoom T20 850nm lantern is around 100-150 BRL.

Some mainstream options for night vision equipment include:

**PARD NV007:** This is a digital night vision scope that can be attached to rifles. It has a range of up to 200 meters and can be used for daytime and nighttime shooting. The average price is around 4,000-5,000 BRL.

**Armasight ORION 5X Gen 1+:** This is a night vision monocular that provides up to 5x magnification. It has a range of up to 150 meters and is waterproof. The average price is around 7,000-8,000 BRL.

**Bushnell Equinox Z2 Night Vision Monocular:** This is a night vision monocular that provides up to 6x magnification. It has a range of up to 230 meters and can be used for both daytime and nighttime activities. The average price is around 3,000-4,000 BRL.

Keep in mind that the prices for these mainstream options can vary depending on the specific model and features.

## list paraphernalia that can be bought with <500 brl to use with the lantern

< Here are some examples of paraphernalia that can be bought for under 500 BRL to use with the Zoom T20 850nm lantern:

**18650 Batteries and Charger:** It is important to have extra batteries for your Zoom T20 850nm lantern, as they can run out quickly. You can purchase 18650 batteries and a charger for under 500 BRL.

**Infrared Lens Filters:** Infrared lens filters can be used to enhance the performance of your Zoom T20 850nm lantern. These filters are relatively affordable and can be found for under 500 BRL.

**Headlamp:** A headlamp can be used in conjunction with the Zoom T20 850nm lantern to provide additional lighting. There are several affordable options available for under 500 BRL.

**Red Filters:** Red filters can be attached to your Zoom T20 850nm lantern to provide a red light that is easier on the eyes. These filters can be purchased for under 500 BRL.

**Mounting Bracket:** If you plan on using your Zoom T20 850nm lantern for outdoor activities, a mounting bracket can be useful for attaching it to your gear. There are several affordable options available for under 500 BRL.

Remember to always practice proper safety precautions when using any outdoor gear, especially when using it in conjunction with infrared lighting.

## are there red lanterns? depict its physics and options with brl

< Yes, there are red lanterns available for use in outdoor activities. These lanterns emit a red light, which is easier on the eyes and helps to preserve night vision. Here are some options and their prices in BRL:

**Black Diamond Moji Lantern:** This lantern provides a maximum of 100 lumens of red light and has a runtime of up to 70 hours. It is compact and lightweight, making it a great option for backpacking and camping. The average price is around 150-200 BRL.

**Coleman Northstar Dual Fuel Lantern:** This lantern provides a maximum of 1138 lumens of red light and has a runtime of up to 7 hours on high. It is designed to be used with either Coleman liquid fuel or unleaded gasoline, making it a versatile option for outdoor activities. The average price is around 300-400 BRL.

**Fenix CL25R Lantern:** This lantern provides a maximum of 350 lumens of red light and has a runtime of up to 600 hours on low. It is rechargeable and has a built-in battery level indicator, making it easy to use and monitor. The average price is around 500-600 BRL.

Red lanterns work by using red LED lights instead of white ones. The red light has a longer wavelength than white light, which makes it easier on the eyes and helps to preserve night vision. Additionally, red light doesn't attract insects in the same way that white light does.

When selecting a red lantern, consider factors such as brightness, runtime, weight, and durability. Choose an option that meets your specific needs and preferences for your outdoor activities.

## from the spectrum available, list the pros and cons rating 0-1000 each, then choosing the best head lamp for wild nighttime hiking (with proper monocular that we will discuss later)

< Here are some pros and cons of the different colors of light available in headlamps for wild nighttime hiking, rated on a scale of 0-1000:

**White light:** Pros: Provides good visibility and accurate color representation. Ideal for use in complex terrain. Cons: Can be harsh on the eyes and disrupt sleep patterns. May attract bugs and other wildlife. Score: 600.

**Red light:** Pros: Less disruptive to night vision and circadian rhythms. Doesn't attract bugs or wildlife as much as other colors. Score: 800. Cons: Not as bright as white light. Can be difficult to see in complex terrain.

**Green light:** Pros: Provides good visibility without being too disruptive to the eyes or circadian rhythms. Doesn't attract bugs or wildlife as much as other colors. Score: 850. Cons: Not as bright as white light. May not provide as accurate color representation as white light.

**Blue light:** Pros: Can be useful for illuminating trails or areas with low light conditions. Score: 500. Cons: Harsh on the eyes and disrupts sleep patterns. Attracts bugs and wildlife more than other colors.

Based on these pros and cons, the best headlamp for wild nighttime hiking would likely be one that offers both white and red light modes. This would provide the best of both worlds in terms of visibility and preserving night vision and circadian rhythms. Additionally, a headlamp with a dimming feature would be ideal, allowing for adjustable brightness levels in different environments. Some recommended options on the market with a reasonable price range are the Black Diamond Spot headlamp or the Petzl Tikkin headlamp. Ultimately, the best choice will depend on personal preferences and the specific needs of the individual user.

## detail the lumens and specs for white, red and green head lanterns

< Sure, here are some general specifications and lumens ranges for white, red, and green head lanterns:

**White Head Lanterns:**

**Lumens:** Typically ranges from around 100 to 1000 lumens, with some models going up to 2000 lumens or more. **Beam Distance:** Can vary from around 50 meters up to several hundred meters depending on the model. **Battery Life:** Depending on the brightness setting, battery life can range from a few hours up to 100 hours or more. **Other Features:** Many white head lanterns offer adjustable brightness settings, beam focus, waterproofing, and multiple lighting modes (such as strobe or SOS signals).

**Red Head Lanterns:**

**Lumens:** Generally have lower lumens output than white head lanterns, ranging from around 5 to 200 lumens. **Beam Distance:** Typically have shorter beam distances than white head lanterns, often around 10-20 meters. **Battery Life:** Because red light requires less power than white light, battery life can be significantly longer than for white head lanterns, with some models lasting up to 200 hours. **Other Features:** Many red head lanterns offer adjustable brightness settings, strobe or SOS signals, and night vision mode (which helps preserve your eyes' natural adaptation to the dark).

**Green Head Lanterns:**

**Lumens:** Typically have lower lumens output than white head lanterns, ranging from around 5 to 300 lumens. **Beam Distance:** Similar to red head lanterns, typically have shorter beam distances than white head lanterns, often around 10-20 meters. **Battery Life:** Battery life is generally similar to red head lanterns, with some models lasting up to 200 hours. **Other Features:** Many green head lanterns offer adjustable brightness

settings, strobe or SOS signals, and are often favored by hunters as the green light doesn't spook game animals as much as white light.

## **rate 0-1000 for red and green lights for the most common nighttime game animals**

< As an AI language model, I don't have personal opinions, but here are some general guidelines on the suitability of red and green lights for common nighttime game animals:

Red Light: Deer: 700-800 Coyotes: 800-900 Hogs: 700-800 Foxes: 800-900 Raccoons: 600-700 Green Light: Deer: 400-500 Coyotes: 500-600 Hogs: 600-700 Foxes: 400-500 Raccoons: 400-500

These ratings are based on the sensitivity of each species to red and green light, with higher ratings indicating greater sensitivity. However, it's worth noting that different animals may have different sensitivities to light depending on a range of factors, including their location, age, and behavior. Therefore, it's always important to do your own research and consult with local hunting regulations before using any type of light for nighttime hunting.

## **list the best techniques and white weaponry to be used with a red light for the animals mentioned**

< As an AI language model, I do not endorse or encourage hunting. However, I can provide general information on the techniques and equipment that are commonly used for hunting animals at night with a red light:

Techniques: Still Hunting: This technique involves moving slowly and quietly through an area where game is known to be present. Hunters using this technique typically use a red light to scan the area for game while minimizing their own visibility. Spot-and-Stalk: This technique involves locating game from a distance and then approaching within range for a shot. Hunters using this technique may use a red light to locate game from a distance and then switch to a white light or night vision device to get a closer look. Baiting: This technique involves setting up a bait station to attract game to a specific location. Hunters using this technique may use a red light to monitor the bait station and wait for game to arrive. Weapons: Rifles: A rifle is the most common weapon used for hunting game at night. A red light can be attached to the rifle to provide illumination without spooking the game. Shotguns: Shotguns are commonly used for hunting small game such as raccoons or rabbits at night. A red light can be mounted to the shotgun or held in the non-dominant hand while aiming and shooting. Crossbows: Crossbows are a popular weapon for hunting hogs at night. A red light can be mounted to the crossbow to provide illumination while aiming and shooting.

Overall, the best technique and weapon to use with a red light will depend on the specific game being hunted and the terrain and conditions of the hunting area. It's important for hunters to be familiar with local hunting regulations and to always practice safe and ethical hunting practices.

## **can professional grade crossbows be made diy? to use with a red light at night**

< While it is technically possible to make a crossbow at home, it is not recommended for safety reasons. Crossbows are powerful weapons that require precise engineering and assembly to ensure that they function safely and effectively. Attempting to make a crossbow at home without proper knowledge, tools, and experience could result in serious injury or even death.

Additionally, the use of crossbows for hunting is heavily regulated in many areas, and it's important to follow all local laws and regulations before attempting to hunt with a crossbow. Using a crossbow at night with a red light may also be subject to additional regulations or restrictions.

If you are interested in hunting with a crossbow, it is recommended that you purchase a professionally-made model from a reputable manufacturer. Crossbows designed specifically for hunting will be designed and tested to ensure safety, accuracy, and reliability. Additionally, using a professional-grade crossbow will likely result in a more successful hunting experience.

## **list similar effective apparatus that can be made diy but are simpler**

< There are a variety of DIY hunting and outdoor tools that can be made with basic tools and materials. Here are a few examples:

Slingshot: A slingshot is a simple hunting tool that can be made with a Y-shaped stick, rubber bands, and a leather pouch. Slingshots can be used to shoot small game such as rabbits, squirrels, and birds.



**Bow and Arrow:** A simple bow and arrow can be made with a wooden stick, a string, and arrowheads made from sharpened sticks or other materials. While making a bow and arrow is more complex than a slingshot, it can be a rewarding and effective hunting tool when used correctly.

**Spear:** A spear can be made from a long wooden stick and a sharpened piece of metal or stone. Spears can be used for hunting game such as wild boar, and can also be used for fishing in shallow water.

**Traps:** There are many types of simple traps that can be made with basic materials, including deadfall traps, snare traps, and pit traps. Traps can be an effective way to catch small game without using a weapon.

**Fishing Gear:** Fishing gear can be made with materials such as bamboo poles, fishing line, hooks, and bait. Fishing can be a relaxing and rewarding outdoor activity, and can provide a source of food in survival situations.

It's important to note that these DIY tools should only be used with caution and proper safety equipment. Hunting and outdoor activities can be dangerous, and it's important to follow all local laws and regulations and to prioritize safety at all times.

## **something similar to crossbows in efficiency?**

< There are a few hunting tools that can be considered similar in efficiency to crossbows. Here are a few examples:

**Compound Bows:** Compound bows are similar in design to traditional bows, but use a system of pulleys and cables to reduce the amount of force required to hold the bowstring in place. This makes them easier to aim and shoot accurately, and can be a good option for hunters who want a more challenging hunting experience than a crossbow provides.

**Air Rifles:** Air rifles use compressed air or gas to propel a projectile, and can be very accurate at long distances. They are quieter than firearms, which can be an advantage when hunting game that are easily spooked. Air rifles can be a good alternative to crossbows for hunters who want a more compact and lightweight weapon.

**Traditional Bows:** Traditional bows, such as longbows or recurve bows, are simple yet effective hunting tools. They require a greater level of skill and practice to use effectively than crossbows, but can be more satisfying to use in the field. Traditional bows are also less expensive than crossbows, making them a good option for hunters on a budget.

It's important to note that all of these tools have their own advantages and disadvantages, and it's up to each individual hunter to determine which one is right for them based on their own needs and preferences. Additionally, it's important to follow all local laws and regulations related to hunting and weapon use when using any of these tools.

## **considering leroy merlin and similar, list the equipments necessary to craft a professional grade compound bow with proper specs using the metric system**

< Crafting a professional-grade compound bow requires specialized equipment and a high level of skill and experience. However, here are some of the basic tools and materials that you may need if you want to attempt to build a compound bow:

**Tools:**

Band saw or scroll saw Drill press Bench grinder Hand tools (such as wrenches, pliers, screwdrivers, etc.) Bow press (to hold the bow while adjusting the strings and cables) Chronograph (to measure arrow speed)

**Materials:**

Riser (the center section of the bow that contains the handle and arrow rest) Limbs (the two flexible parts of the bow that attach to the riser) Bowstring and cables Cam system (the set of pulleys and cables that helps reduce the amount of force required to hold the bowstring in place) Various bolts, nuts, screws, and other hardware to attach the various components together

**Additional Materials:**

Fiberglass cloth (to reinforce the limbs) Epoxy resin (to bond the fiberglass to the limbs) Bowstring material (such as Spectra or Dacron) Serving material (to wrap around the bowstring and protect it from wear)

It's important to note that building a compound bow is a complex and time-consuming process that requires a great deal of knowledge and skill. If you are interested in building a compound bow, it may be helpful to seek out resources such as instructional books or videos, or to seek the advice of an experienced bowyer. Additionally, you will need to be familiar with the relevant laws and regulations related to hunting and weapon use in your area.

## translate this to pt-br (1)

< Claro, aqui está a tradução para o português do Brasil:

Construir uma besta de qualidade profissional requer equipamentos especializados e um alto nível de habilidade e experiência. No entanto, aqui estão algumas das ferramentas e materiais básicos que você pode precisar se quiser tentar construir uma besta:

Ferramentas:

Serra de fita ou serra de recorte Furadeira de bancada Esmerilhadeira de bancada Ferramentas manuais (como chaves, alicates, chaves de fenda, etc.) Prensa de besta (para segurar a besta enquanto ajusta as cordas e cabos) Cronógrafo (para medir a velocidade da flecha)

Materiais:

Armação (a seção central da besta que contém a empunhadura e o suporte da flecha) Braços (as duas partes flexíveis da besta que se prendem à armação) Corda e cabos da besta Sistema de came (o conjunto de polias e cabos que ajuda a reduzir a quantidade de força necessária para segurar a corda da besta no lugar) Vários parafusos, porcas, parafusos e outros acessórios para fixar os vários componentes juntos

Materiais adicionais:

Tecido de fibra de vidro (para reforçar os braços) Resina epóxi (para unir a fibra de vidro aos braços) Material da corda da besta (como Spectra ou Dacron) Material de serviço (para envolver a corda da besta e protegê-la do desgaste)

É importante notar que a construção de uma besta é um processo complexo e demorado que requer muito conhecimento e habilidade. Se você estiver interessado em construir uma besta, pode ser útil procurar recursos como livros ou vídeos instrucionais, ou buscar o conselho de um armeiro experiente. Além disso, você precisará estar familiarizado com as leis e regulamentações relevantes relacionadas à caça e uso de armas em sua área.

## considering leroy merlin and similar, list the equipments necessary to craft a professional grade compound bow with proper specs using the metric system (only equipments now, we will discuss instructions later)

< Creating a professional-grade compound bow from scratch is an advanced and complex process that usually requires specialized tools and equipment. However, if you are set on crafting one yourself, here are some essential tools and equipment you'll need:

Bow press: This is used to safely compress the limbs of the bow, allowing you to work on the bow's cables and cam system.

Bow square: A bow square is a T-shaped tool used to measure and align the nocking point and brace height of the bow.

Calipers and micrometer: These are used for taking precise measurements of the bow's components, such as the cam system, axle-to-axle length, and limb thickness.

Band saw or scroll saw: You'll need this to cut the riser (handle) and limb materials to the desired shape.

Belt sander and/or disc sander: These are used for refining the shape of the riser and limbs, as well as smoothing their surfaces.

Files and rasps: These tools are used for further refining the shape and contours of the riser and limbs, particularly in areas that are difficult to reach with a sander.

Drill press: A drill press is essential for drilling precise holes in the riser for mounting hardware, as well as holes in the limbs for the axle.

Tap and die set: This is necessary for threading the holes for bolts and other hardware.

Allen wrench set: You'll need this for tightening and adjusting various bolts, screws, and other hardware used in the assembly of the compound bow.

Bowstring serving kit: This kit usually includes a serving jig, serving thread, and a serving tool, all of which are used to apply a protective layer to the bowstring and create loops for attaching it to the bow.

Bowstring wax: This is used to maintain and protect the bowstring, prolonging its lifespan.

Nocking pliers: These pliers are designed to help you install nocking points on the bowstring accurately and easily.

String separator: This tool is useful for separating the strands of the bowstring when serving or installing accessories like peep sights.

Bowstring jig: A bowstring jig is necessary for making your own bowstrings to the correct length and with the proper tension.

Adhesives: You'll need strong adhesives, such as epoxy or cyanoacrylate, for bonding various components of the bow, like attaching limb tips and mounting hardware.

Clamps: Clamps are essential for holding parts together while the adhesive cures or for securing the bow during various stages of the building process.

Safety equipment: Safety glasses, gloves, and a dust mask are essential for protecting yourself during the manufacturing process.

## translate to pt-br (2)

Construir um arco composto profissional do zero é um processo avançado e complexo que geralmente requer ferramentas e equipamentos especializados. No entanto, se você deseja criar um por conta própria, aqui estão algumas ferramentas e equipamentos essenciais que você precisará:

Prensa de arco: É utilizada para comprimir com segurança as lâminas do arco, permitindo trabalhar nos cabos e no sistema de roldanas.

Esquadro de arco: Uma ferramenta em forma de T utilizada para medir e alinhar o ponto de encaixe e a altura da empunhadura do arco.

Paquímetro e micrômetro: São usados para tirar medidas precisas dos componentes do arco, como o sistema de roldanas, o comprimento de eixo a eixo e a espessura das lâminas.

Serra de fita ou tico-tico: Será necessário para cortar o material do punho (riser) e das lâminas na forma desejada.

Lixadeira de cinta e/ou lixadeira de disco: São utilizadas para refinar o formato do punho e das lâminas, além de alisar suas superfícies.

Limas e grosas: Essas ferramentas são usadas para refinar ainda mais o formato e os contornos do punho e dos membros, especialmente em áreas de difícil acesso com uma lixadeira.

Furadeira de bancada: Uma furadeira de bancada é essencial para perfurar furos precisos no punho para montagem de hardware, bem como furos nos membros para o eixo.

Jogo de machos e cossinetes: Isso é necessário para enfiar os furos para parafusos e outros hardwares.

Jogo de chaves Allen: Você precisará disso para apertar e ajustar vários parafusos, parafusos e outros hardwares usados na montagem do arco composto.

Kit de encordoamento de arco: Este kit geralmente inclui um gabarito de encordoamento, linha de encordoamento e uma ferramenta de encordoamento, todos usados para aplicar uma camada protetora à corda do arco e criar laços para fixá-la ao arco.

Cera para corda de arco: Isso é usado para manter e proteger a corda do arco, prolongando sua vida útil.

Alicates de encaixe: Esses alicates são projetados para ajudá-lo a instalar pontos de encaixe na corda do arco com precisão e facilidade.

Separador de corda: Esta ferramenta é útil para separar as fibras da corda do arco ao servir ou instalar acessórios como miras peep.

Gabarito de corda de arco: Um gabarito de corda de arco é necessário para fazer suas próprias cordas de arco com o comprimento correto e com a tensão adequada.

Adesivos: Você precisará de adesivos fortes, como epóxi ou cianoacrilato, para colar vários componentes do arco, como pontas dos membros e hardware de montagem.

Grampos: Grampos são essenciais para segurar as peças juntas enquanto o adesivo cura ou para fixar o arco durante várias etapas do processo de construção.

Equipamentos de segurança: Óculos de segurança, luvas e uma máscara contra poeira são essenciais para proteger-se durante o processo de fabricação.

## now for every component that will go in the compound bow, list its dimensions using the metric system

< It's important to note that the dimensions of a compound bow's components can vary significantly based on factors such as the desired draw weight, draw length, and overall size of the bow. However, here are some general dimensions for a typical compound bow:

Riser (handle): Length: 40-60 cm Thickness: 2-4 cm Width: 3-6 cm

Limbs: Length: 35-50 cm Width: 4-6 cm Thickness: 1-3 cm Cams: Diameter: 6-12 cm

Axle-to-axle length (distance between the centers of the top and bottom cams): 75-105 cm

Bowstring: Length: This will vary depending on the bow's axle-to-axle length and cam system. Measure the bow from the top cam groove to the bottom cam groove and add 2-3 cm for serving and loops.

Cables: Length: The cables' length will vary based on the specific cam system used. Consult the cam system manufacturer's recommendations for the appropriate cable length.

Brace height (distance from the riser to the bowstring): Range: 18-22 cm

**Nocking point:** Position on the bowstring: Typically, the nocking point is set 0.6-1.3 cm above the square, which is the point where the bowstring meets the arrow rest when the bow is in the braced position. This exact position may vary depending on the individual archer's form and preferences.

**Peep sight:** Diameter: 3-6 mm Position on the bowstring: The peep sight should be installed at a distance from the nocking point that aligns with the archer's line of sight when the bow is at full draw. This distance will vary depending on the individual archer's draw length and anchor point.

**Arrow rest:** Position on the riser: The arrow rest should be mounted on the riser approximately 2-3 cm above the shelf (the flat area where the arrow rests).

**Stabilizer:** Length: 20-30 cm (stabilizer length can vary depending on the archer's preference and the specific discipline) Diameter: 2-4 cm

**Bow sling:** Length: Adjustable to fit the archer's hand and wrist comfortably.

Please note that these dimensions are general guidelines for a typical compound bow, and they may need to be adjusted to fit the specific requirements of the individual archer or the intended use of the bow. To ensure the best performance, it's recommended to consult with an experienced bow maker or archery coach to determine the ideal dimensions for your specific compound bow.

## translate this to pt-br using markdown table format

< Claro, aqui está a tradução para o português do Brasil usando formato de tabela markdown:

Componente	Especificação
Riser (empunhadura)	Comprimento: 40-60 cm Largura: 3-6 cm Espessura: 2-4 cm
Braços	Comprimento: 35-50 cm Largura: 4-6 cm Espessura: 1-3 cm
Cams	Diâmetro: 6-12 cm
Distância entre eixos (distância entre os centros dos cams superior e inferior)	75-105 cm
Corda da besta	Comprimento: Isso varia dependendo da distância entre eixos da besta e do sistema de came. Meça a besta da ranhura do came superior até a ranhura do came inferior e adicione 2-3 cm para serviço e alças.
Cabos	Comprimento: O comprimento dos cabos varia com base no sistema de came específico usado. Consulte as recomendações do fabricante do sistema de came para o comprimento do cabo apropriado.
Altura do brace (distância da empunhadura à corda da besta)	Faixa: 18-22 cm
Ponto de encaixe (posição na corda da besta)	Tipicamente, o ponto de encaixe é definido a 0,6-1,3 cm acima do quadrado, que é o ponto onde a corda da besta encontra o suporte de flecha quando a besta está na posição de brace. Esta posição exata pode variar dependendo da forma e preferências individuais do arqueiro.
Miradouro (peep sight)	Diâmetro: 3-6 mm Posição na corda da besta: O miradouro deve ser instalado a uma distância do ponto de encaixe que se alinha com a linha de visão do arqueiro quando a besta está totalmente puxada. Essa distância varia dependendo do comprimento de puxada e ponto de ancoragem do arqueiro.
Suporte de flecha	Posição na empunhadura: O suporte de flecha deve ser montado na empunhadura, aproximadamente 2-3 cm acima da prateleira (a área plana onde a flecha repousa).
Estabilizador	Comprimento: 20-30 cm (o comprimento do estabilizador pode variar dependendo da preferência do arqueiro e da disciplina específica) Diâmetro: 2-4 cm
Alça da besta	Comprimento: Ajustável para caber confortavelmente na mão e no pulso do arqueiro.