

# CLIMBING FACTORY 攀岩工厂

## GYM CLIMBING FUNDAMENTALS

ESSENTIAL GUIDE FOR NEW CLIMBERS

# Disclaimer

Rock climbing and mountaineering in general is a dangerous pastime that can lead to serious injury or worse. You should not undertake these without proper training or equipment.

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# Styles of climbing



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# Styles of Climbing

Indoor climbing or so call gym climbing has three major disciplines: Sport (Lead and Top-rope), Bouldering and Speed. All three of those disciplines are form of Free climbing

Free climbing is when the climber uses climbing equipment such as ropes and other means of climbing protection, but only to protect against injury during falls and not to assist progress.



# Lead and Top-rope Climbing

When you walking to the gym for the first time, lead climbing will be probably the style that will get most of your attention.

Lead climbers using rope and fixed anchors and bolts to protect themselves when ascending tall wall faces.

Sports (lead and top-rope) climbing, is all about pushing the limits of your climbing ability in very safe setting and then finally succeeding on hard climbing routes.

Sports climbing is often done on shorter routes and can have an emphasis on the physical aspects of climbing instead of the goal of getting to the top or to a destination. Sports climbing not only makes you a better rock climber but it's a heck of a lot of fun too!



Nina Arthaud, during 2020 Briançon Lead World Cup

Photo by Jan Virt/IFSC

The sport will make its Olympic debut at Tokyo 2021 and will feature three disciplines:  
Speed, Bouldering  
and Lead.



When lead climbing, climbers clip the rope to quickdraws fixed to the wall.

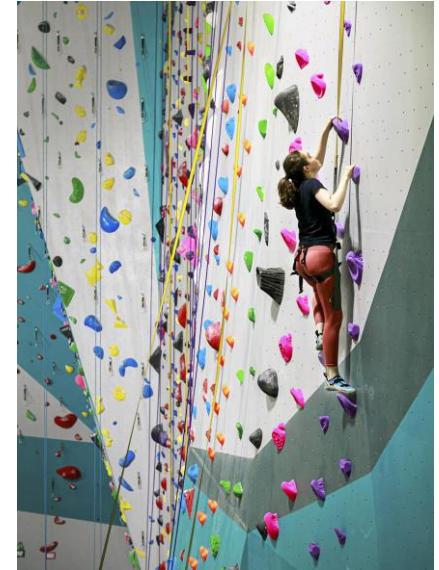
## Lead vs. Top-rope Climbing

*Lead and top-rope* climbing can be both done on the same climbing route. The difference is the protection used during ascending.

*Lead climbers* are using fixed points (bolts) and quickdraws fixed to the wall every one or two meters to ‘hook’ the rope while they are climbing. When they are above the last quickdraw that they clipped, there is possibility of climbing fall but the fall is usually not longer than two meters and is protected by belayer and the equipment. Correct lead climbing falls are safe but adding mental challenge to the climbing. Because of that, lead climbing is considered the more advanced and the ‘right’ way of climbing.

*Top-rope climbing (or Top-roping)* is a style in which a rope, used for the climber’s safety, runs from a belayer at the foot of a route through an anchor at the top of the route and back down to the climber. If the belaying is done properly the top-rope climber generally will not fall more than a short distance and can thus safely attempt even the most difficult routes.

Top rope climbing is very useful in teaching beginner to intermediate level.



Climber top-roping her way up to the top during Climbing Factory opening event.

Photo: Wang Song



# Top-rope Climbing with Auto Belay Device

Replacing partnered belays and traditional climbing ropes, auto belays automatically take up slack as the climber ascends a route and provides a smooth and controlled descent when the climber reaches the top or takes a fall. Auto belays offer climbers the freedom to climb when they want and how they want while reducing belay related risks.

When using auto belay device you have to be sure that you have attached it correctly to your harness. If you have never used auto belay system before, ask Climbing Factory staff for the introduction.

To assure that no one will climb the wall before clipping into belay device, they are usually attached to a cloth that covers first meter of the route.





Thanks to automatic  
belay devices there is  
no need of having  
baleyer.

# Bouldering

A very raw form of climbing, bouldering requires only shoes, chalk, and a *chalk bag*. Typically, these problems (as we call bouldering routes) are on walls under 4,5 meters tall and the climbing tends to involve a short sequence of very powerful moves. It is sometimes useful to think of bouldering as a sprint—quick and powerful—whereas other styles can be more like marathons. In Climbing Factory, bouldering problems are graded using the V-Scale.





Bouldering's simplistic nature is a draw for many climbers.

# Speed Climbing

Speed climbing is where athletes compete for the fastest time to the top of the climbing wall. Theoretically, any climbing route can be speed climbed but since 2007, the IFSC has created a standard wall that is used for official competitions. It means that the same holds and route are used each time for consistency across competition. There are athletes that train specifically for these events and for international speed climbing competitions.

The standardized speed climbing wall is 15m tall, and 5 degree overhung. As for today, November 2020, the speed climbing record belongs to Iranian climber Reza Alipour Shenazandifar with time 5.48 seconds! Aries Susanti Rahayu from Indonesia holds the women's record at 6.995 seconds and was the first woman to break the 7s barrier.

In Climbing Factory there are two standardized speed climbing routes, one for adults and one for kids.

Reza Alipour. Known variously as the "Asiatic Cheetah", "Iranian Spiderman", the "Usain Bolt of Speed Climbing", and the self-titled "Fastest Vertical Man in the World".



Many of Climbing World Cup Competitions are organized in China.



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An overview of  
Climbing Gear



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# An overview of a Gear

The following is simplified version of the gear that you will likely encounter during the first couple of visits in climbing gym.

Make sure that equipment that you are buying is certified with UIAA and CE certificate.

The information how to use the equipment as well as the equipment life expectancy is always described at the instruction that comes with the equipment.



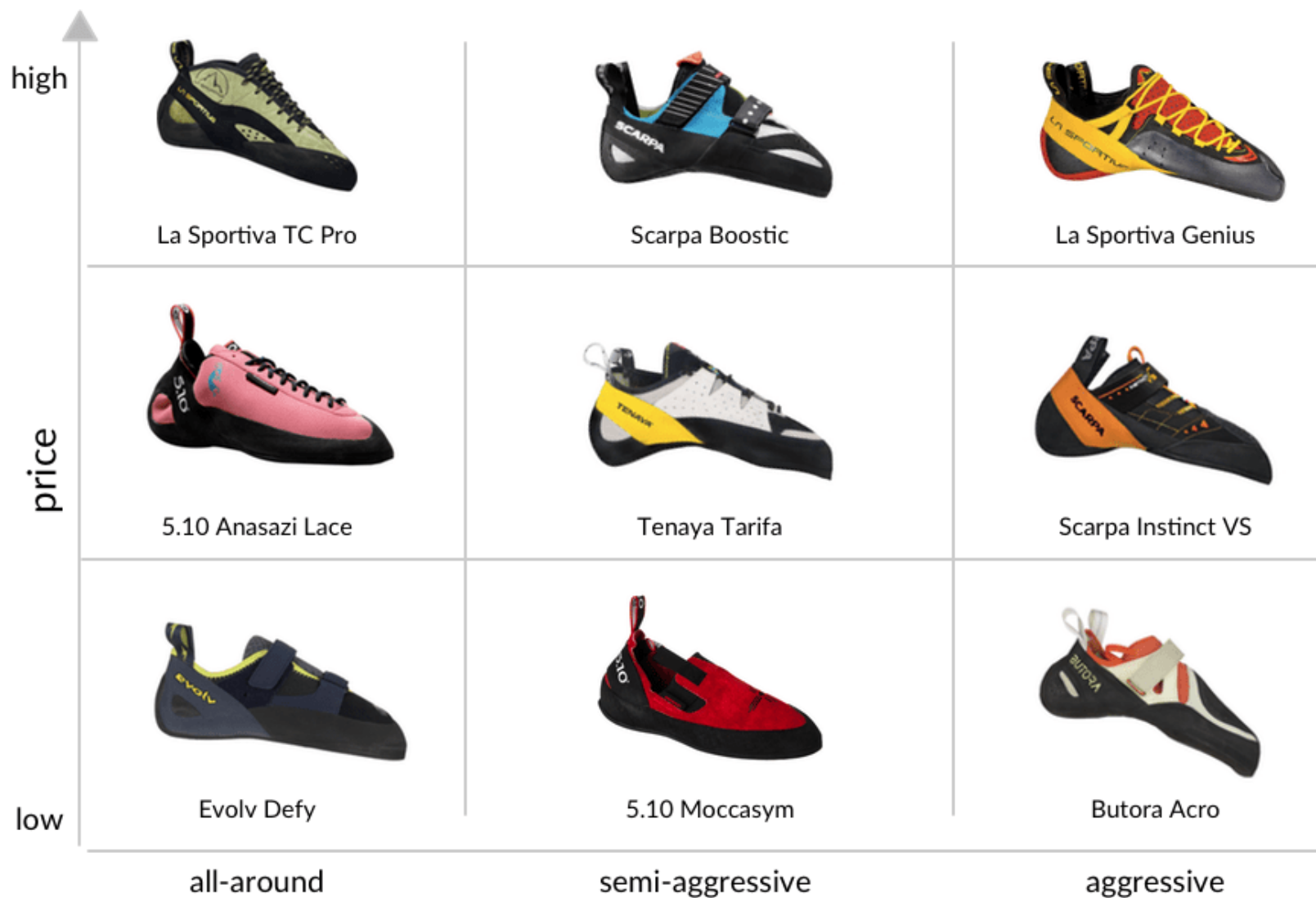


# Shoes

Climbing shoes are simultaneously the most ordinary and the most perplexing piece of climbing gear yet they have the greatest impact on your climbing performance and comfort. They utilize sticky rubber and tight-fitting profile to enhance your sensitivity and friction on the rock. There is many different climbing shoes available but generally rating from greatest comfort to greatest performance. High performance/more aggressive shoes are usually more stiff and less comfortable, while the most comfortable shoes usually are less precise.

When choosing your first climbing shoes, remember that they have to tightly fit your foot when no wearing socks.







Take care of your gear and  
will serve you for a long time

## Chalk and Chalk Bag

Climbers, similar to gymnasts using chalk to stop hand from sweating and to increase the friction between hold and hand. Most of the climbers need to chalk-up their hands couple of times during one climb and because of that they keeping chalk in specially designed bags that are attached to climbers waist.

For climbers that hand are sweating more, there are also liquid chawks good option. It is a mixture of standard chalk and alcohol. Liquid Chalk is applied on hands like a cream seconds before climbing.

Bouldering fans often using chalk buckets instead of chalk bags. It is basically a oversized chalk bag that can not be attached to your waste.

## Brush

It's a good habit to brush off the chalk from holds after finishing climbing, especially on the bouldering wall. Holds may drastically decrease the friction if not brushed for long time. Too much chalk or rubber (from climbing shoes) simply makes holds more slippery.



Wooden brushes are the most common. They last long, usually are good quality and are better for environment than plastic ones.

When bouldering it's better to leave your chalk bag down



# Harness

A harness is equipment that allows climber to hang body weight on the rope. Its like a very strong belt that you will attach yourself to the rope with and it will secure possible fall.

You can rent harness at Climbing Factory, so if you are not ready to buy all climbing equipment at once, even thou it is considered one of the essentials, you can first invest in climbing shoes and chalk bag.

There is many different harnesses on the market and it is quite important to make a good choice when buying one. Climbing harness usually last us for couple of years and it is important to have one that fits us well and that we feel comfortable wearing.

Ask in Climbing Factory shop if you need any gear advice.



Rental harness is fully adjustable and fir well kids as well as adults



Standard climbing harness



For small kids it is suggested to use full body harness

# Ropes

The ropes you see being used in climbing centers and at the outdoor sport climbing crags are all **single dynamic ropes**. Single mean that we are climbing just on one string unlike mountaineers that often using two thinner strings (double or twin ropes) at the same time. Dynamic mean that the rope is stretchy what enable it to absorb some of the force of the climbing fall. Thanks to that stretch, falls are softer and more safe.

When choosing climbing rope, one of the most important characteristics you have to look up, is the diameter of the rope (how fat is the rope). This one factor directly implicate many others. Fatter rope will be more durable, cheaper but heavier. Climbing on thinner rope, especially long routes, is way more comfortable but we need to spend couple more RMBs to get one of those and we have to take into account that it will not last us forever.

Majority of the climbing ropes are in diameter between 9.0-10.0mm. Standard length is 60m but it is possible to buy ropes 50-90m long.





Climbing Factory is great for beginners as well as for pro athletes



# Belay Device

As soon as you will start belaying other climbers you need to get familiar with belay devices (and belaying techniques – chapter 3). Belay device is the small piece of equipment that you attaching to your harness and drag the rope through instead of holding the end of the rope in your hands when your partner climb (that do not work. Don't try it!).

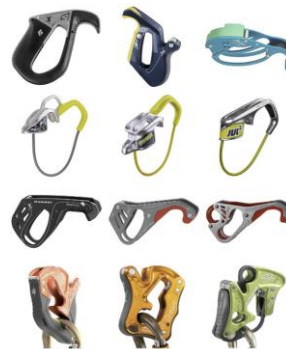
There are two primary belay device

- ATC stands for air traffic control – is simple and unexpensive. Those devices have no moving parts and in case of fall it rely solely on belayer close attention to properly break the rope.
- GriGri – is one kind of ‘automatic belay devices’. It works similar to seat belts in the car. When the climber is moving slowly (climbing up or down) belayer will be able to move rope through the device, but in case of rapid move/climbing fall, it will automatically lock and stop the climbers. Nevertheless, the ‘automatic’ feature of this device should be considered a back-up system and belaying should be no different than belaying with ATC.

ATC like belay devices  
unassisted



Assisted braking  
passive



Assisted braking  
active



# Carabiners

There are two types of carabiners, locking and non-locking ones. Locking carabiners are the ones that you will use to attach belay device to the harness. Those have twisting component, called screw gate, to secure itself shut. The extra component also makes the carabiner stronger (only when closed).

Non-locking carabiners are mostly common used in quickdraws where you need to be able to quickly clip the rope in.

Carabiners come in different shapes, locking systems and are made from different materials. Ask in Climbing Factory shop which carabine will be the best for you.



Locking carabiner with  
Standard screw-gate



Locking carabiner with self  
locking screw-gate



Quickdraw is build off two non-  
locking carabiners and piece of  
webbing

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Belaying  
Fundamentals



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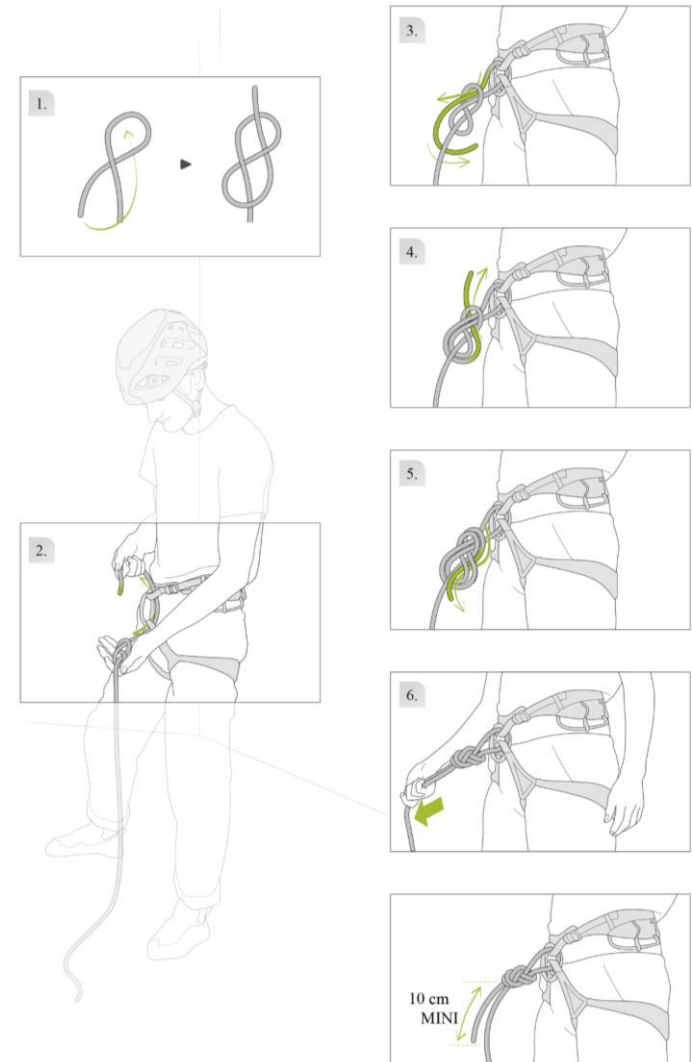
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# Figure 8 knot

This knot, together with couple of easy rope skills is fundamental to climbing safety.

Take time to practice it, starting from single figure 8 knot, then double figure 8 knot (that you will use to attach yourself/your harness to rope) and even practice it with your eyes closed – only for practice!

Keep your eyes open and be fully attentive when proceeding any climbing operations.



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# Conduct ABCDEF partner check before each climb



**A: ANCHOR** – Look up and check the anchor:

- if the rope is not twisted
- If you and your partner are attached to the same rope

**B: BELT** – check your and your partner's harness:

- If it is put on correctly
- If it is tight enough
- If buckles are closed

**C: CONNECTION** – Climber attachment to the rope:

Using Knots:

- If the knots are correct and tightened
- If the rope is going through both of the harnesses' tight points

Using locking carabiner:

- If the carabiner is locked
- If the carabiner is attached to the harness belay loop

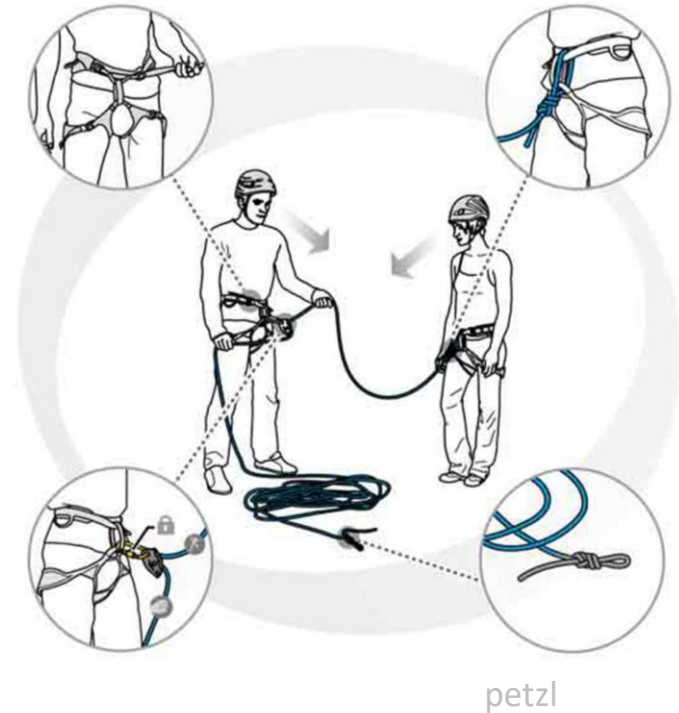
**D: DEVICE** – Check the device:

- If the rope is set up correctly in the belay device
- If the belay device's carabiner is locked
- If the carabiner is clipped correctly to the harness belay loop

**E: EVERYTHING ELSE:**

- If the climber has all needed equipment (chalk-bag, climbing shoes, helmet etc.)
- If the weight difference of the belayer and climber is not too big

**F: FRIENDSHIP** – Wish your climber enjoyable climbing



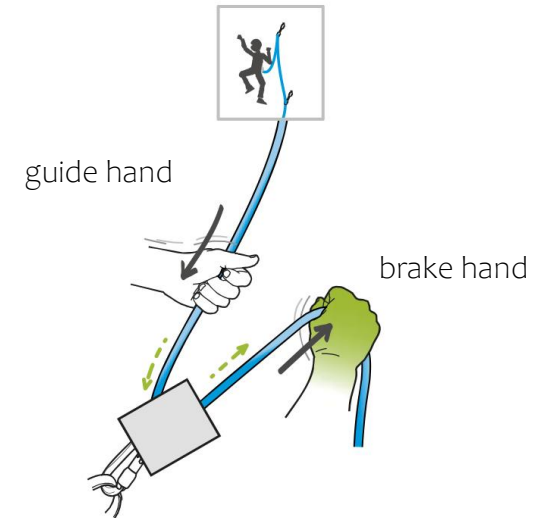
# Belaying Fundamentals



## Top-rope Belaying with PBUS Method

This technique is universal and suggested by climbing federations all around the world as the most simple and safe. It is used for both, ATCs and GRIGRIs devices. It is four - step process of **p**ull, **b**rake, **u**nder, **s**lide.

**Pull:** the **p**ull is simultaneous action of pulling with both your guide and brake hands in harmony. The motion will consist of gently pulling down with your guide hand (see on the photo) and onward with you break hand. It should be done simultaneously so the extra slack doesn't enter the system.



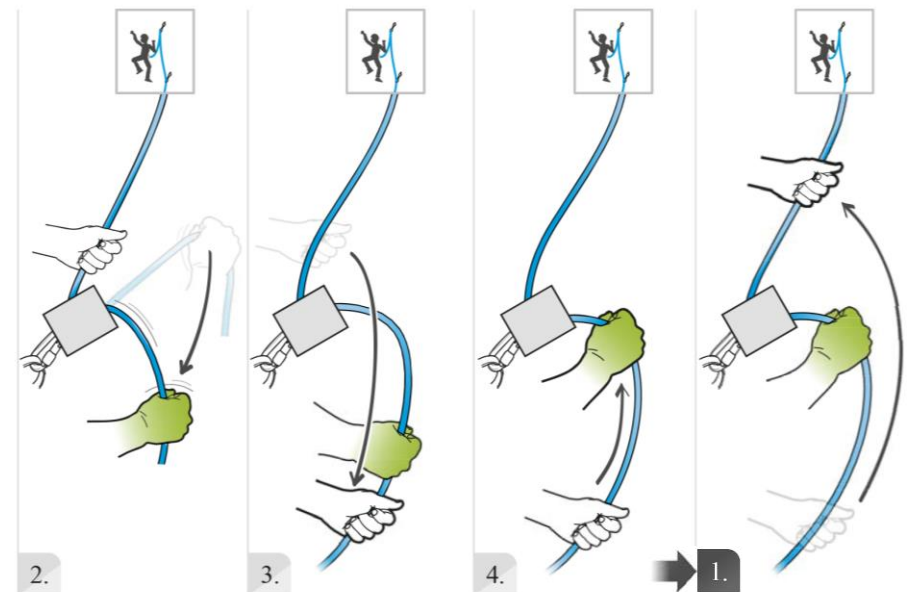
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**Brake:** Towards the end of your pulling motion, the brake hand should immediately do down towards your hip into a break/locking position. This pull-to-brake motion should be fluid and in the shape of a slight curve.

**Under:** With your brake hand in breaking position near your hip, take your guide hand and place it under the brake hand.

**Slide:** With your guide hand now under your brake, slide your brake hand back up toward the belay device, ensuring that it never leaves the rope. After sliding, return your guide hand to the climber's rope, ready to repeat the process.





Never hesitate to ask for help  
if something is new for you.  
Your safety is the priority!

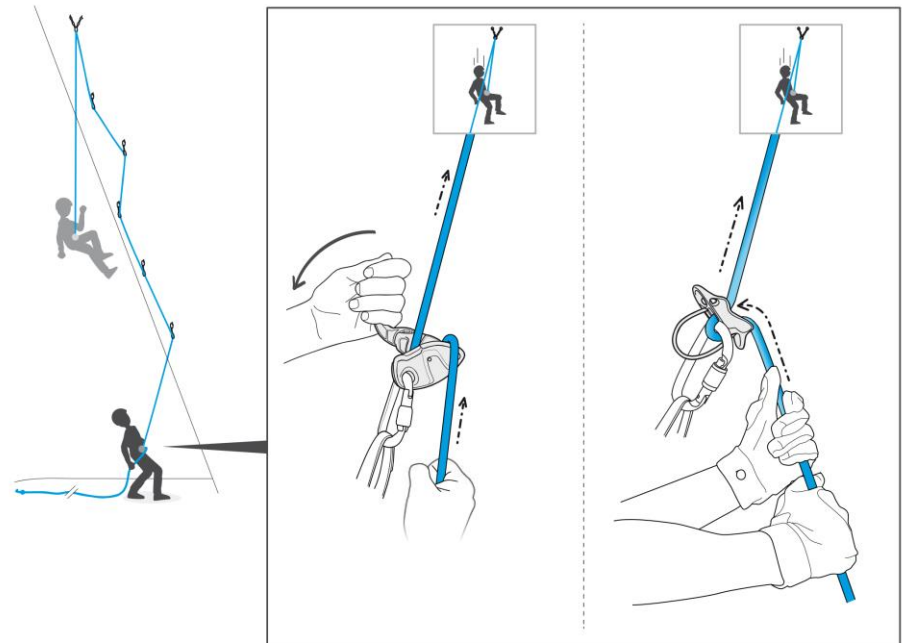


# Lowering



When the climber is ready to lower, following the agreed upon commands, he/she weights the rope and does not control the descent. The belayer, who holds the climber's life in their hands, is entirely responsible for lowering.

Lowering techniques for ATC type devices are different from those of devices such as the GRIGRI. But in any case, there is a universal point in common: the hand on the brake-side rope controls the running of the rope.

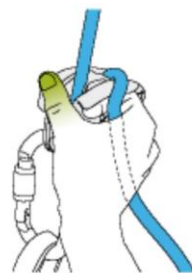
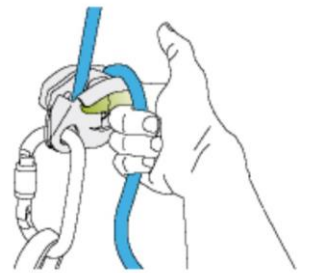
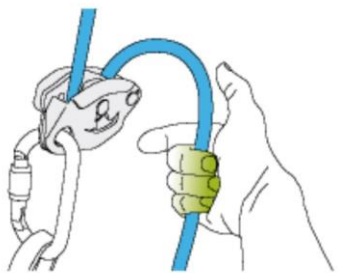
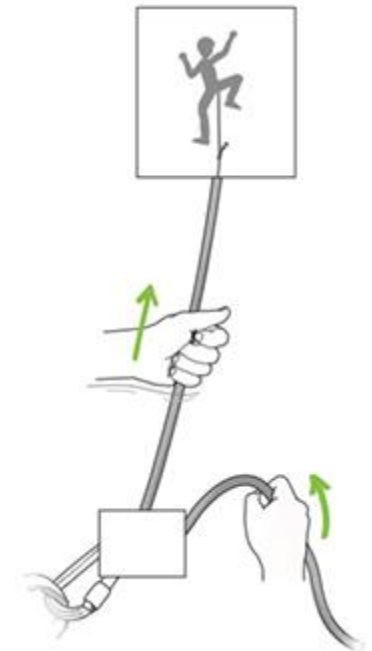


# Feeding Slack

Giving out slack to your climber is common in lead climbing and happens only occasionally when top-rope (when climber want to make move down the wall).

In this process, your brake hand never leaves the rope. If using either ATC or GRIGRI, the method of feeding out slack is the same:

Simply guide the rope through the belay device. At times, you may have to feed slack very quickly which – if using GRIGRI – may cause to lock up. In that case, you should put your thumb onto the device to deactivate its camming/assisted-breaking action, as demonstrated below.



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# Commands and Communication

Using standardized rock climbing commands, which are relatively universal throughout climbing cultures can significantly decrease confusion that sometimes occurs within a climbing party. It is essential that new climbers quickly learn and utilize climbing commands to avoid confusion.

It's important to make sure that everyone has a solid understanding of the climbing commands that will be used by the party and the meaning behind each of these commands.

<b>Climber</b>	<b>Belayer</b>	<b>Meaning</b>
On belay		Is the belay ready
	Belay on	Your belay is ready
Climbing		Here I come
	Climb / Climb on	Come ahead
Slack		In need some slack in the rope
Up rope		Take in the loose rope
Falling		I'm falling! Brake the belay rope!
Tension		Hold the rope tightly in case I fall
	Got you	There's tension on the rope
Ready to lower		Lower me
	Lowering	I'm letting you down now
Rock	Rock!	Look out for falling objects
Rope	Rope!	Rope being thrown down
Off belay		I'm in a safe place and no longer need a belay
	Off belay	I'm no longer belaying you

# Certification System in Climbing Factory

The assure maximum safety in the Climbing Factory, we applied a system to certified technical skills of belaying and climbing of each climber that is visiting us. In example it goes as follow. If you visiting Climbing Factory for the first time, you are advised to join ‘Gym Climbing Fundamentals’ class that is introducing you to all aspect of climbing in the gym. This book will be also passed to you in digital form hoping it will help you to review the new knowledge. During that class as one of the skills, you will learn about top-rope belaying and will join exam that will certify you as a top-rope belayer. You will receive blue badge that you will attach to your harness. After that you are welcome to come climb at the bouldering wall or climb and belay on top-rope routes, but you are not allowed to lead climb or to belay.

As soon as you will get comfortable with the top-rope routes (climbing ad belaying), you are very welcome to join lead climbing course that will finish with exam and will be rewarded with read badge.

You are also welcome to join exams for lead or top-rope badges without joining our courses.



Proud owners of one of the first red badges in Climbing Factory

October 2020



The YELLOW BADGE is given to climbers above 14 years old and allows to lead climb but do not allow to perform belaying .

If you are above 14 years old and you are skilled with top-rope belaying and climbing you are welcome to receive BLUE BADGE.

To receiving the highest badge – the RED BADGE – you will need to prove that you are fluent with lead climbing and lead climbing belaying . This badge can be receive only by adults (above 18 years old).



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# Climbing Grades



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# Climbing Grades Explained

Climbing grades are the scale of the difficulty of the climbing routes. The bigger the number the more difficult the climb. While this is true, understanding the nuances of climbing grades, may give you a little more insight into picking climbs and will also make talking about climbing to other climbers a whole lot easier.

The sport climbing developed simultaneously in many parts of the world and because of that there is no one universal grading system and it changing from country to country.





# Bouldering V scale

The scale used in Climbing Factory’s bouldering wall is the V scale developed in North America by John ‘Vermin’ Sherman in Texas’ Hueco Tanks in the 1990s. This scale ranges from V0-V16, although it is open-ended with the potential to go beyond the current V16 limit. Occasionally, the designation of VB will be given to climbs easier than V0, with the “B” representing “basic” or “beginner.”

Roughly speaking, new climbers will spend their time in the V0-V3 range, with V4-V6 reflecting intermediate level bouldering. Advanced boulderers may climb around the V7- V11 range, with V12+ reflecting the upper echelon of the sport.

Bouldering Grades		ROCKFAX c.o.m
V Grade	Font Bouldering Grade	British Tech Grade
VB	3	4a
V0-	3+	4b
V0	4	4c
V0+	4+	5a
V1	5	5b
V2	5+	5c
V3	6A 6A+	6a
V4	6B 6B+	6b
V5	6C 6C+	6c
V6	7A	7a
V7	7A+	7b
V8	7B 7B+	7c
V9	7C	8a
V10	7C+	8b
V11	8A	8c
V12	8A+	9a
V13	8B	9b
V14	8B+	9c
V15	8C	10a

Different Bouldering grades around the world.





Bouldering routes  
are named PROBLEMS

# Lead Climbing Grades

In Climbing Factory we are using Yosemite Decimal system to grade the difficulty of the lead routes. That system is North America's primary method of grading roped climbs. This system is divided into five classes:

- Class 1: relatively flat terrain
- Class 2: simple scrambling, with hiking boots recommended
- Class 3: scrambling with greater exposure and the use of hands
- Class 4: simple climbing and some individuals may seek a rope
- Class 5: technical free climbing where a rope is highly recommended and unprotected falls are likely fatal

Our focus in this guide is class 5 climbing grades, which range from 5.0-5.15c, with the potential to develop beyond the 5.15c limit.



Sport Grade	UIAA	USA	Norway	Australian	South Africa
1	I	5.1		4	6
2	II	5.2		6	8
2+	III	5.3	3	8	9
3-	III+	5.4	4	10	10
3	IV	5.5	4+	12	11
3+	IV+	5.6	5-	14	12
4	V	5.7	5	16	13
4+	V+	5.8	5+	18	14/15
5	VI-	5.9	6-	20	16
5+	VI	5.10a	6	21	17
6a	VI+	5.10b	6+	23	18
6a+	VII-	5.10c	7-	24	19
6b	VII	5.10d	7	26	20
6b+	VII+	5.11a	7+	27	21
6c	VIII-	5.11b	8-	29	22
6c+	VIII	5.11c	8	30	23
7a	VIII+	5.11d	8+	32	24
7a+	IX-	5.12a	9-	34	25
7b	IX	5.12b	9	36	26
7b+	IX+	5.12c	9+	38	27
7c	X	5.12d		40	28
7c+	X+	5.13a		42	29
8a	XI-	5.13b		44	30
8a+	XI	5.13c		46	31
8b	XI+	5.13d		48	32
8b+	XII-	5.14a		50	33
8c	XII	5.14b		52	34
8c+	XII+	5.14c		54	35
9a	XIII-	5.14d		56	36
9a+	XIII	5.15a		58	37
9b	XIII+	5.15b		60	
9b+	XIV	5.15c		62	

Climbing grades around the world

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General Tips for  
New Climbers



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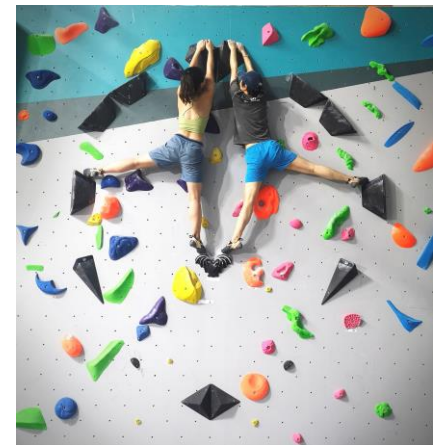
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## General Tips for New Climbers

So, here we are, finally you started your climbing journey and turned out that you love it! You probably noticed already that climbing is a sport that mental aspect is very important and include problem solving, self-control and trust. Also, you not only have to push yourself physically, but you have to do it while dealing with the very natural fear of heights. There also so many ways of training, from full body workouts to hang-boards, moon-boards...

As you can see, climbing is a very complex sport and if you just starting , you may get a bit confused and ask yourself what is the best way to improve quickly in first couple of months. Below we have prepared for you couple of New Climbers Tips that will give you an idea how to get through your first 6 months in the gym.

‘Couples that climb together, stay together’  
- The Wiseman





First visit to the Climbing Gym  
is always very exciting. Enjoy!

- JUST CLIMB

When you are starting out, there is no substitution for spending as much time as possible actually climbing. Climbing Factory is a great resource as it offer many routes spanning a wide range of difficulties and styles. Gyms are also a great place to pick up tips by observing others. At the first couple of months, as your body adapting to new sport, you will most probably notice big improvement in your climbing. It is quite important to evade intense climbing training at the beginning to avoid possible injuries.

- TAKE INTRO CLIMBING COURSE

Intro courses are especially vital if you will be doing any rope climbing. Instructors will teach you the basics that are essential to your safety.

- AVOID INJURY

As many experienced climbers can tell you, injury is one of the primary restrictors from progress. It's important to listen to your body; take sufficient rest as your muscles seek recovery. Here are a few tips for staying injury-free:

- Warm up before climbing is essential to avoid injuries as well enjoy climbing. If you warm up properly, you will be able to climb longer without getting tired. Usually, 20 minutes of dynamic moves + 20 minutes of very easy climbing (traversing) is sufficient to prepare your body for climbing.

- Stay away from tendon-intensive holds and training exercises in your first 6 months. Tendons take longer to gain strength than your muscles, so many newer climbers that progress to thin, powerful crimps too fast will find themselves with injury.
- Use recovery tools/techniques to relax your muscles and stimulate healing.
- Do opposition exercises to take care of your body's balance and composition. Climbers do a lot of pulling and tend to have overdeveloped lats and shoulders. Some basic opposition exercises include push-ups, dips and shoulder presses.

## • FIND A PARTNER IN CLIMB

It is always good idea to have trusted climbing partner that you can climb regularly with. It is not only safer to have trusted person 'on the second end of the rope' but it is also easier for the mental part of climbing. People that starting with partners, proven to progress faster because they can watch their friends climbing, analyze and also learn the techniques that way. If you do not have climbing partner, don't worry, climbing community is very open and friendly. I promise you that you will find your 'crew' very fast.

## • MAKE CLIMBING A ROUTINE BY JOINING A CLASS OR TRAINING GROUP

One way to make yourself stick with and be serious about climbing more is to take a class or training team at your gym. It is also good way to meet other climbers that are on level similar as you.







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People creating routes are named route-setters

## • GET BETTER, NOT STRONGER

It may be not obvious at the beginning, but when we climb, the feet are more important than our arms and hands. By climbing with good foot work, you will decrease the strength that your arms must hold.

You can make quick improvements, though, by practicing the drill “Silent Feet” while climbing.

Silent Feet is exactly what it sounds like. Pick a route or problem and, while climbing it, try to make as little noise as possible when you place your feet on the footholds. You should not be able to hear your foot touch the hold.

## • PRACTICE PROPER ETIQUETTE

Climbers tend to be easy-going and friendly. But, like in every community, climbers also have their own code of conduct. If you'd like to fit in and not push any wrong buttons, it's important to understand proper etiquette. Here are a few tips:

- Keep the beta to yourself! Many climbers consider their climb a ‘puzzle’. Most enjoy figuring out they way through the hold to reach the top. Be respectful, and if you have idea how to do a move, first ask the climber if he want to hear it.
- Stay aware of whose turn it is to climb. If someone is chalking up near the base of a climb, don't beat the individual to the wall or hop on an adjacent route that would interfere. Likewise, if someone is brushing the holds of a climb, provide the courtesy of allowing him or her to go next.
- Keep your shoes on! Climbing barefoot in the gyms is not cool. As well as going to the toilet having your climbing shoes on.
- Keep your chalk-bag off the mat when bouldering. Climb routes having the chalk-bag attached to your waste but leave it down and off the mat when bouldering. Chalk in the air is not harmful to your health but it cleaner air makes the gym and climbing more pleasant.
- Keep your belongings away from climbing mats. From time to time we hear about injuries of climbers falling on objects left on the mats. Never do that. It is really silly way to get hurt.

- HAVE A BLAST

If you're not having fun, it may be wise to take a few days, a couple weeks, or even more time off while you regain your psych. Many climbers (professionals included) experience climbing in cycles of ups and downs, ensuring to take time off and try something else when motivation plateaus. If climbing isn't feeling right, try getting on a bike, running, practicing yoga, or pursuing another activity. Your body and mind may need a healthy break from climbing ... and that's okay! Put simply, follow your intuition and have fun out there.



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Climbing  
Glossary



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# A Simplified Climbing Glossary

If you have problem sometimes to understanding what climbers are talking about? It is time to learn some simple terms that climbers are using.

**Beta:** the specific moves (technique and sequence) necessary for a climb.

Example: I'm having trouble getting past the crux; could you help me out with the beta?

**Crag:** a generic term for an outdoor technical rock climbing area.

Example: Will I see you at the crag this weekend?

**Crux:** the most difficult section of a climb.

Example: I always fall at the crux!

**Dyno:** a dynamic climbing move in which the climber leaps for a hold, completely releasing him/herself from the rock face.

Example: Since he was short, he had no choice but to do a dyno for the next hold.

**Edge:** 1) a very thin, rigid hand or foothold; 2) to place the outside or inside edge of the climbing shoe on a thin foothold.

Example: 1) The climb is extremely technical because it only has thin edges for your hands and feet.  
2) Because my shoes are so soft, they're not as good for edging.



**Flag:** a footwork technique in which the climber extends a leg for counterbalance.

Example: To do this move, turn your left hip against the wall, put your left foot on that chip, and you can just flag your right foot.

**Flash:** to complete a route without falling on the first try with information (beta) about the necessary moves prior to climbing (as opposed to an onsight).

Example: I saw the videos of Joe doing the moves, so when I showed up to do the climb it was an easy flash

**Lead:** to be the first climber up a pitch, clipping bolts or placing protection while ascending.

Example: Would you like me to lead this pitch?

**Onsight:** to complete a route without falling on the first try without any information (beta) about the necessary moves prior to climbing (as opposed to a flash).

Example: I love walking up to a climb, knowing nothing about it, and going for the onsight.

**Pitch:** one rope-length of a climb.

Example: My friends prefer multi-pitch trad climbing, but my favorite style is hard single-pitch sport climbing.

**Project:** a climb one is currently working on; projects may last one day or many years!

Example: I'm heading out this weekend to get a few more tries on my project.



**Pump:** the swelling and tightness that occurs in a climber's forearms when reaching points of fatigue.

Example: I find overhanging routes challenging because I always get so pumped.

**Redpoint:** to complete a route without falling, placing protection along the way, and without resting on gear; contrary to a flash or onsight, this does not imply that it's the climber's first try.

Example: After a few tries, I successfully redpointed my first 5.11!

**Sandbag:** to grade a route lower than deserved; sandbagged routes can cause a climber to get in over his/her head.

Example: I had to bail halfway up; the route was so sandbagged.

**Send:** slang for "ascent;" a common term used when a route is completed.

Example: I just sent my project!

**Slab:** a rock face that is less than vertical (leaning slightly away from you), typically with few hand and foot holds, and requiring friction climbing techniques.

Example: Because I'm so used to gym holds, my first outdoor slab climb was horrifying!

**Smear:** to use merely the friction of one's climbing shoe on a poor or non-existent foothold.

Example: The slab had no obvious footholds, so I just smeared and my feet magically stuck!

**Stem:** to counter-press two widely spaced footholds.

Example: Since the walls come to a corner, you can stem your way up with one foot on each wall.



**Stick clip:** tool used to clip the initial bolt(s) of a climb, preventing a ground fall.

Example: A stick clip is recommended because the first bolt is 20ft high!

**Traverse:** to climb horizontally rather than vertically.

Example: I was having trouble with the crux, so I managed to traverse a few moves left and found an easier option.







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