

Gunning Guide

Chapter 1 - Introduction

Recently my friend thought that it would be a good idea to put the sensitivity of my mouse up to maximum sensitivity so that my mouse was more responsive and I suddenly found myself tearing my hair out because I couldn't do a single puzzle properly anymore. This guide contains all the lessons that I learned in having to regain my reactions from scratch and hopefully these techniques will help you improve your gunning too.

Contributors

Contributors to gunning - clarity - advice on simplifying your approach, the less you have to think about the better you are likely to do

Tzz – inspiring the method I used to build up this guide.

Rapportus – for an excellent gunning guide that taught me single-cannon loops.

Boothook – for an excellent gunning guide that taught me central loops.

Hornedgod – For excellent advice when I was learning central looping.

My friends Amit and Alex for giving me the communication skills to write this guide.

Everyone that uses my website for giving me a reason to do this.

How to use this guide

Just as a quick note before we dive into gunning however is that training your reactions takes a long time. Rising to the top of gunning requires regular practice for months and unfortunately if you stop for a few weeks you can quickly find that your reactions have gone. So if you are gunning for hours and not finding any improvement just relax and remember that things take time and to concentrate on one thing at a time.

I will assume that you understand the gunning basics in this guide, if you don't then please read the wiki article: <http://yppedia.puzzlepirates.com/Gunning>.

One thing at a time!

The key to success is to concentrate on one thing at a time and the methods presented in this guide have been designed around that. Don't try to go beyond your means and fill several cannons until you have gotten to a high rank and absolutely know you have nowhere else to improve on significantly doing just one. Also stick to the two cannons in the loop! Once you move past central looping you can think about filling more than just two on a board when you aren't sitting.

When I first tried to get my reactions back I did what I was used to – central looping. Trying to use a technique that required fast reactions meant that all the pieces were bouncing around the board before I even had a chance to place the arrows. Naturally I realised that I was trying to do something that I wasn't capable of so I went back to single and two-cannon loops. While I was doing this I still tried central looping every so often and to fill difficult cannons. Every time I did this I struggled and I wasn't really learning very much. As soon as I took the advice of simplifying my approach I suddenly found myself going up the ranks.

How long will this take me?

Learning to gun well, like any puzzle, can take months and each rank could take weeks. If you are good at another puzzle or do something that requires fast reactions then you should naturally progress more quickly. I will not speculate on any guide lines or what rank you can achieve with

each technique because everyone is different so don't be demoralised if it takes you a long time. Keep trying and concentrate on learning one skill at a time! I can't stress enough how important it is to only concentrate on learning an individual skill and that applies to any skill level.

Going down to go up

Another very important principle in learning is that while I have tried to avoid it wherever possible you could quite probably drop ranks as you progress through my guide.

I for example went down to respected guns from leg/ult when I increased my mouse sensitivity and started using WASD. Learning better techniques often makes you worse but you will overcome it in time! I have been told it will take me about a month to get used to the mouse

Controls

In order to put those pesky little pieces into the cannons you will have to decide which controls you want to use. Here I describe the two main alternatives and the advantages/disadvantages of each.

The mouse is by far the best at positioning your arrows. Using the mouse for this is a must for good gunning. The question is though what do you use to change the direction of your arrows? You can click and drag using the mouse or you can use the WASD keys to change the direction and then click to place. During my experimentation with the two techniques I found that each has very distinct advantages and disadvantages.

With the mouse you are only ever using one input method so you don't have to context switch between two different things. This may sound strange but I found it to be a huge disadvantage of WASD that stopped me from setting up loops quickly. Every time you change between placing an arrow and moving the mouse takes a fraction of a second for your mind to adapt. When you are trying to place arrows as fast as possible this time spent context switching is extremely noticeable.

However pressing a button is much faster than moving the mouse so for finer control WASD definitely has its advantages. When I first tried to use WASD I was changing the arrows too fast to even catch a single piece so it is most definitely faster. I find that if you are just alternating an arrow like you do in loops then WASD is very suited to this.

In other words, a mouse is much better if you are expecting to move your mouse quickly after placing the arrow and WASD is better if you are keeping your mouse still for a while. So use your mouse if you are free style gunning or setting up a loop and WASD if you are loading one cannon and simply alternating an arrow.

When you are using click and drag the time that you react (release the mouse button) is the same as the action. So it is much easier to judge.

You can control everything from the keyboard the same as with your mouse. The arrow placement can be moved using the arrow keys and the direction can be changed using the WASD keys. These mapping of course can be changed to whatever you like in options but I recommend sticking to these.

Chapter 2 – Ranks and scoring

This chapter presents what your rank is based on and explains why certain things happen so that you can better understand what it means to do well in gunning. A few tips on how this information will benefit you and your rank will also be provided.

Relative ranks

One of the biggest frustrations can be how every time you get your rank up it seems to fall back down of its own accord. This happens because ranks are relative, rather than your rank representing an absolute level of skill they represent percentiles. For example being an ultimate means that you are in the top 1% for that puzzle rather than being able to load guns under x seconds on average.

Changes in the scores of other players can push a border-line rank up or down if this changes what percentile that rank is in.

Imagine a gunner has just had a bad day and you were the very best of that percentile at the time and as a result when you log on you find that your rank went up. However this other gunner is going to fix their rank when they next log on and cause you to fall out of that percentile, unless of course you consolidate your rank by doing another good puzzling session so that you aren't hanging on that percentile border.

Hint: If you go up a rank, do one more puzzle session to consolidate it.

Did you know that once there was a bug that caused the ranks of every player to be taken into account for ranks whether they were active or not? There were many new ultimates that had their rank taken away when the bug was fixed.

Puzzle sessions

Have you ever noticed that your rank only ever changes after events such as abandoning your station or entering an environment? Your rank is based on puzzle sessions that are split up by these events which can be very easily confused with league points and time segment breaks where duty reports are displayed.

Your rank is based on your average score across a puzzle session rather than the number of incredibles, excellents or goods that you achieve. If you abandon your station on a regular basis then your rank will change more rapidly because you will get more scores. Gunning lends itself very naturally to this which allows you to go through the ranks very rapidly if you have the skill.



You can use this information to average out a poor performance. In the example above loading two extra cannons has averaged out a poor performance of 20 down to 15. Similarly if you fill two guns at a lightning fast speed then you know that if you load more cannons your average is going to down now so you would abandon the station.

Rankings

Ranks are like a queue of scores of a limited size, every time a puzzle session finishes a score gets pushed off the front of the queue and a new one gets added to the end. You are given a score based on the average of all the scores in this queue. Below is a series of gunning scores where the pirate did a puzzle session where guns took 6 seconds each, on average, the next session took an average of 7 seconds each and so on.

6	7	6.5	4.2	10	40	10	6	7	3
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The overall score is the average of all these scores, so in this case the overall score is 9.97. So if I do a puzzle session with an average time of 7 seconds per cannon then my list of scores now has the 6 removed from the front and a 7 added to the end.

7	6.5	4.2	10	40	10	6	7	3	7
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Notice how the average is now higher because the new score is higher than the old score, even though 7 is actually below the average. In this list the 40 represents a bad score and it is likely that this pirate will go up a rank as soon as they do enough puzzles to push this score off the list as long as that session is faster than 40.

This is one of the biggest reasons of why it is so hard to improve your rank with a higher experience because the higher your experience, the more scores are in this list. This can work in your favour because one bad spurt of luck won't have as much of an effect on your average as it would with a lower experience but it also means that it takes longer to 'push off' a bad score. If for example a pirate with exalted experience has 100 scores on their list and gets one hundred great sessions in a row followed by one booched session then it will take that pirate 100 puzzle sessions at least to fix their rank. If they only had broad experience however they would only have to be able to do say ten good sessions to fix their rank.

Chapter Summary

- Ranks are relative
- Your rank is based on puzzle sessions rather than duty reports
- Your rank is the average of a queue of puzzle sessions

Chapter 3 – Basics

This chapter presents all the basic information that you need to use loops. I have chosen to use loops because they allow you to concentrate on learning one thing at a time which is crucial to any learning process.

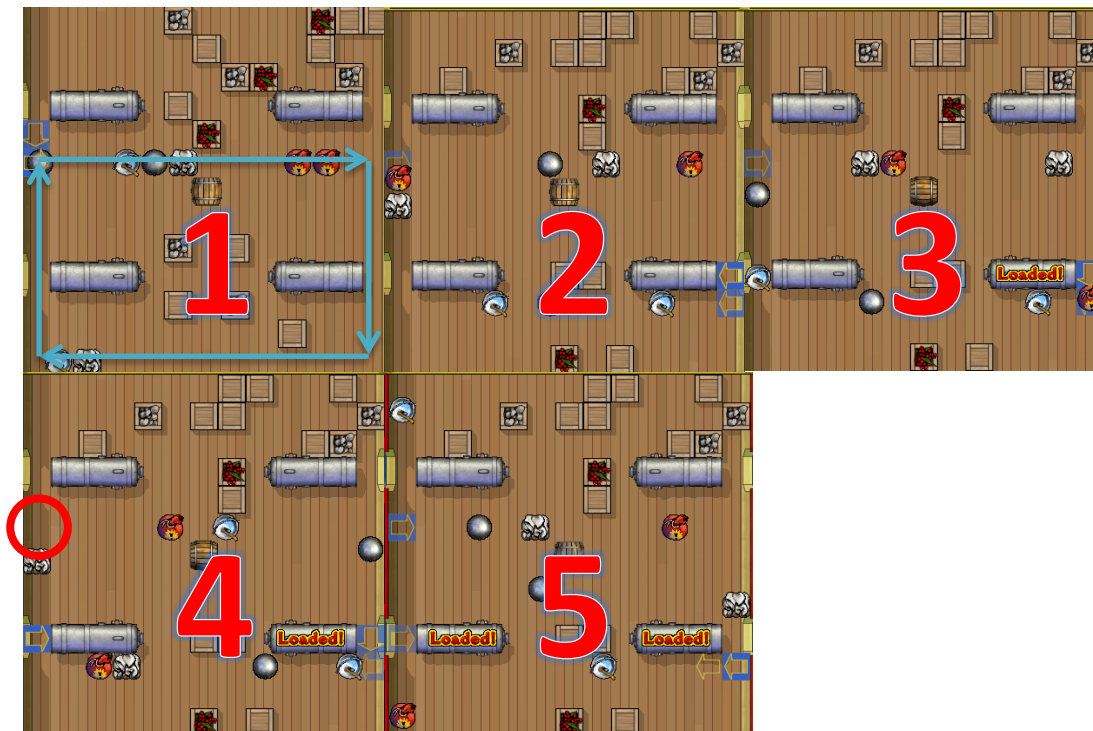
Setting up a loop



Boards without a possible two-cannon loop



A loop is comprised of one or two arrows that allow pieces to follow a set path repeatedly. This makes gunning much easier because you can separate your concerns into a series of tasks and learn them one at a time instead of having to learn everything at once.



1. Set up a loop that will cause the pieces to loop continuously round two cannons. Make sure that you only use at most two arrows because you will need the third to place pieces into the cannons. Your loop should include the barrel, this way any pieces that exit the barrel to the left or right get caught in the loop. If there is no such loop then abandon your station and take it again to look for a better board.
2. Use your spare arrow to place pieces in the cannon as they pass by
3. As soon as the pieces have gone into the cannon change that arrow to guide pieces along the loop
4. Once you have loaded your first cannon refresh the one or two arrows that make up your loop so that they don't disappear. To refresh an arrow place it again.
5. Fill the other cannon in the same fashion as the first.
6. Abandon the gunning station.

This is a very effective and easy to learn technique that I believe can get you to around grand-master if not legendary. The difference between able and legendary using this technique will depend on how well you can herd pieces and how fast your reactions are which will be covered in the coming sections.



Setting up the loop quickly is critical to your success, if you find that pieces are escaping before you set it up then reduce the speed that you are gunning at by altering the slider at the bottom of the puzzle. After a few weeks of solid practice setting up these loops should become natural to you, gunning is all about practice, this guide is just designed to show you how to practice one thing at a time.

Remember to make gunning as easy for yourself as possible, try to avoid filling cannons that you think will be difficult. The fewer things that you have to think about while gunning, the more likely you will be to succeed. Once you have spent a few weeks doing things one at a time then you can start trying to fill guns before the loop has fully stabilised and increase your speed.

Herding



You have probably noticed by now that when you were waiting for the loop to set up lots of pieces started bouncing off each other and even pushed things out of the loop. This can cause pieces to get trapped and lose precious time.



On the boards shown above I have placed extra arrows to herd arrows into my loop. You also have to herd pieces when there aren't enough in your loop to fill the cannons.

Chapter Summary

- The easiest way to gun is to create a loop around two cannons
- Pieces can then be fed into the cannons by alternating an arrow
- You must occasionally herd pieces into your loop

Chapter 4 - Small tips for loops

Once you understand how to make a loop, guide and herd pieces you have most of the high level ideas that you need to become a good gunner. The rest of it is all about how quickly you can react and many small pointers.

Warm up and flow

I find that I gun far better if I am in the flow and always gun slightly worse when I warm up. So use an alt etc.

Over the side!

Sometimes you have those really evil cannons that just can't be filled. I typically find that cannons with dead ends are best filled by throwing pieces off the side. This prevents unwanted pieces from bouncing back.

It also acts almost like a loop! Imagine throwing pieces over the side as being like a teleporter. Anything that you throw over the side re-appears at the barrel and you can use this to create a loop. You may lose pieces as they go out of the barrel but you can keep 2/3 or so each time.

This technique works best for the bottom left and top right cannons, which makes it great for complimenting central looping!

You don't hurt your rank by throwing pieces off the side.

Loop arrows don't always have to be horizontally

I find that the most natural way to do loops is to have them all horizontally. This is because there is almost always one that is horizontal and I find that my mind treats horizontal and vertical arrows very differently – switching between the idea of placing a vertical arrow and a horizontal arrow takes me a few moments for some psychological reason. So be aware that you can place arrows vertically to make your loop but it will cost you some time! Of course if you abandon the board to look for something better that may cost you time too.

Even placing arrows horizontally but not at the end is strange to me – I think it is because I get used to how much to move my mouse so it take a bit of readjusting to place it somewhere else.

Don't place that arrow until you have to!

In some loops, especially central looping, placing an arrow into a cannon earlier than needed can cause a guiding/herding arrow to disappear! So remember that if a piece is about to bounce off one of your herding arrows then give it as much chance as possible.

Which cannon do I load?

One problem you may face is the decision of what cannon to load. One factor can be where are the pieces? You should choose the cannon that will have the piece it needs come by it first (you have to be able to get there fast enough of course)

Another problem I often encounter is a dead end forcing pieces to drop into one of the cannons. Often these dead ends can be quite a way away so I tend to fill any cannons that have this problem last when the loop has had a chance to stabilise.

Only refresh guiding arrows if you need to

If you are loading your last gun and all the pieces are on their way then you may not even need to refresh your guiding arrows – you have nothing else you need to guide.

Gunning with the navy

Those pesky league points!

Gunning on a pillage

Wash out both cannons first because there is a large time delay, then load them individually. This is if you are able to react quickly enough, otherwise just do them one at a time.

Tracking pieces

Don't just concentrate on the piece you need immediately – think ahead, it will save you time.

Abandon as fast as you can

Every extra second you spend on that board hurts your rating and costs you time!

Dealing with those evil traps

One of the things that annoys me more than anything is a trap on the board. The worst ones are self-contained loops that overlap with one around your cannons. The barrel loves to fire pieces into them and they end up disrupting your pieces, they bounce everywhere and chaos ensues! I find that you have to use guiding arrows very regularly to avoid these problems and free pieces from these loops. Simple versions are ones where pieces simply get caught in the corners and you have to free them every so often, the worst ones are those that cross-over the loop that you are working on.

Another way is to extend your sloop slightly to include the trap.



Here I have extended the loop slightly because at the bottom of the board there was an evil trap (draw some arrows to illustrate) and so I altered my loop accordingly so that anything that went into that area was freed.

Oh no I made a booch! A second! A third! The world is ending!!!

Don't worry about it! Everyone makes some mistakes and it can be quite disheartening, especially after a lucky streak. I find that this normally happens because you get an unlucky board with an evil trap on it and then you get caught thinking about that bad board which causes you to booch the next one and a cascading effect ensues. If you get a bad board cast it out of your mind!

Putting pieces in order

When you are herding pieces you may want to ensure that you herd powder pieces first – this ensures that the pieces are in the right order when you come to load your cannons later. If you have

a powder and a wad for example, wouldn't you prefer the powder piece was first? So make sure that you place the arrow so that the powder bounces off it first. This could save you waiting for that other piece to go around the entire loop again.

All the pieces are in a single line! Help!

What do you do when all the pieces you need are in a line and you can't react fast enough to grab a single piece? Throw a bit of the line overboard and herd the new pieces or reverse one of your guiding arrows to split it up.

It is easier to grab the piece at the front of the line than at the back

I have found that it is much easier to get the piece at the front of a group than at the back and try to do this wherever possible. When trying to get a piece from the back I try to aim for the penultimate piece and I find that I end up getting the last one. As soon as I wrote this sentence I tried to defy my own advice and get the pieces at the end of a set of other pieces. I boomed a cannon three times in a row, missed the pieces four times until I eventually gave up and accepted my own advice.

Remember that this guide is not designed to teach you ways to avoid making mistakes in the first place, it is a guide that will help you identify what mistakes you are making and offer suggestions on how to improve. There is no substitution for doing it and especially no substitution for making your own mistakes.

Concentrate on grabbing pieces from the front or end of a sequence, or that are on their own. Getting pieces that are in the middle is not feasible at higher speeds without a lot of practice, so don't get used to it at the lower speeds! If your pieces are all in a row then use arrows to separate them out.

Minimise the number of actions

Things like moving your mouse to the other side of the screen is an action. So for example if you were just loading the right hand cannon but had to do some herding over to the left, it may be easier to start loading the left cannon because it will minimise your mouse movement – Just be careful that you don't try to treat the other cannon as being empty/dirty when you come back to it though!

Think ahead

Think ahead - track the piece you want now but also the next piece

Think about the order that you fill the cannons in, how can you transition between a loop around one cannon and the next? Usually doing the two at the bottom then the two at the top or vice versa going round in a circle is the best approach in my experience.

Using the speed slider

Chapter 5 – Practice

I have dedicated an entire chapter to this because there is nothing more important in gunning than practice. Most of your gunning skill will be based upon your reactions which take time to train.

Ensure that before you try more difficult loops that your reactions are sufficient, expect this to take weeks of practice.

Making your loops better really helps your gunning but the most important thing of all is how quickly you can react! To reach the top in gunning you must be able to guide your mouse with pin-point accuracy. Of course this takes a lot of time and practice but why not dedicate a bit of time here and there to doing it? I am not saying spend hours on it but I found that spending just five or ten minutes every so often practicing clicking in the right places quickly really helped me train my reactions more quickly. Here are a few exercises that I would recommend every so often among your normal gunning routines.

It's all about how fast you can react! How fast can you change from one cannon to another? How fast can you herd your pieces? How fast can you refresh your arrows?

Guiding

Later you will be introduced to a technique called herding which is all about how to guide pieces into a loop effectively. Try setting up a loop that requires four arrows, five or even more! See how well you can do this.

Refreshing

Refreshing arrows will become very important so the faster you can do it the more likely you are to be able to catch that crucial piece at the right moment and save yourself some time!

Mouse precision

This is one of the hardest things to do, first of all you need a good mouse and a good surface. That is absolutely key. Then most of it is just practice and perseverance.

Chapter 6 - Improving your loops

Shortening the loop



You may have noticed that most of your time is spent waiting for the piece that you want to come around the loop. So naturally if the loop is shorter the pieces will come around faster! This means placing the arrow on the near side of the barrel, however this presents some extra challenges. If you look carefully at the way the loops above catch pieces, for example in the first image of the guiding arrows section, whenever the barrel shoots a piece off to the right then it will enter the loop. If you move that arrow three places higher to shorten the loop then those pieces will bounce all over the place!! So what do you do? You use guiding arrows. If you can get all the pieces into the loop initially like this then you shouldn't need to worry about catching other pieces later because if you fill all your cannons without booching then you will have all the pieces you need there. Using this technique you should be able to get to GM/Legendary at least.

I also found that while I was using the simpler looping technique that I had far less control over my pieces. Pieces coming out of the barrel could cause others to bounce into the cannons when I wasn't expecting them to.

I find it best to place the arrow pointing left first, the arrow pointing down second and the arrow pointing right last then to refresh the first arrow so it doesn't disappear. Then naturally my cursor is nearest the right cannon so I fill that first unless the pieces have just passed it in which case I will switch to the left.

What you should be able to do before moving onto the next technique:

- Be able to use guiding arrows to allow you to shorten your loops.
- Be able to load both guns one at a time using this technique and to rarely booch.

Board Sitting

On larger ships there are lots of cannons to load and you will typically have to abandon your station in order to load more cannons and be of more use to the ship. If you are only responsible for loading four guns however, typically on a sloop, then you can board sit!



Why is this useful? Well if you board sit you can do a few things. Firstly you can stay on a board that is really easy to loop the cannons.

Now I know what you are thinking, you can be a genius and find this amazing board before battle even begin! Wait until battle though to look for a good board, if you wait for more than three leagues on the same board then you will find that your puzzle will break and you will have to abandon and look for a new board anyway.

Board sitting - prepare your pieces in advance when they haven't fired

The cannons always fire in order, set up a loop and make sure that pieces are running around so that it's powder-wad-cannonball to fill extra fast later!

Single cannon loops

Chapter Summary

- The shorter your loop the faster the piece you need will come
- When you are on a sloop look for a good board to camp on
- Predict which cannons are going to fire

Chapter 7 - Central loops

Central looping requires fast reactions for placing the initial arrows and refreshing etc. that's why it is harder. There is no delay in waiting for pieces to bounce around though which makes it more powerful and it works on any board – increasing your real gunning output, not just your rank.

On the first video all I am concerned about is one thing at a time, in the second video I have to switch quickly between this idea of setting up a loop and filling the cannons - this context switch is very difficult! This is a huge disadvantage of central looping which makes it a more advanced technique. Normal loops however there is a delay where you have to wait for the pieces to get into the loop, you can use this delay to context switch between the two different tasks.

When I am using central loops I like to remember that once I have been loading one cannon, if I place an arrow in front of the other cannon in the loop then the arrow that is guiding pieces away from that cannon will disappear. You can use this fact to quickly change between cannons and load two at once after you have mastered loading one at a time. The advantage to loading two cannons at once is that you are less likely to be waiting for pieces to come around the loop. This however requires lots of arrow refreshing and can cause pieces to bump against each other more often so you may have to herd pieces, therefore it is more of an advanced idea than filling one cannon at a time.

Chapter 8 - Freestyle

Free style gunning is by far the technique with the strongest potential. However it is also the most difficult. In order to gun freestyle you must be very accurate and precise with your arrow placement and be able to decide which cannon to load and re-evaluate that choice after every piece that you put in. This requires very quick thinking, very quick reactions and to track the entire board. You must also make sure that you herd pieces almost every time. Yes free styling is by far the fastest it is also by far the hardest.

In my opinion loops, especially central loops, have the potential to reach #1 trophies and I know people that have gotten these trophies with two cannon loops, central loops and free style. Free style gunning is for if you want to be the absolute best of the best, if you just want to be very good or improve then I would recommend loop gunning.

When I had my reactions with central looping I was able to load dirty cannons in seven seconds on average. My understanding is that the very best gunners that use a free style can do this in six to six and a half seconds on average. While free style is clearly faster it is very marginal.

The steep learning curve of free style gunning is very demoralising and provides no clear sense of progress because of how much there is to learn. In my opinion it is something that you are either good at or you aren't and that is why I have chosen to base my guide on loop gunning because they provide that sense of improvement at every stage.

Example of #1 gunner from single looping: Rapportus

Example of #1 gunner from central looping: Hornedgod

I have a #1 trophy on Hunter that was actually for two-cannon loops although I changed to central loops however this was because of top gunners doing badly rather than me doing well in my opinion. I don't know anyone that can hold #1 using two-cannon loops.

I will note that single looping and central looping isn't always possible for all the cannons unless you take the difficult guns approach for central looping. I find that I inevitably combine free style gunning with central looping however it is as a last resort.

I highly recommend that if you aspire to be the best gunner then get to ultimate using loop gunning. Then develop a hybrid approach. For example use central looping and use free style gunning for the hardest cannons. Then slowly increase the number of cannons you load free style until you are purely using that strategy.

A great board for single-cannon loops or doubles