



# Pickleball Tutor Drill Manual Full Version



The Pickleball Tutor ball machine manufactured by Sports Tutor, one of the leading sports ball machine makers in the world.

OnCourt OffCourt is the exclusive U.S. distributor of the Pickleball Tutor, and the Pickleball Tutor can be purchased either through OnCourt OffCourt or any of our reputable distributors.

This detailed manual was developed by Kevin Duff in collaboration with OnCourt OffCourt, developers and manufacturer of tennis and pickleball practice and training equipment. Visit [www.OnCourtOffCourt.com](http://www.OnCourtOffCourt.com) and [www.PickleballTutor.com](http://www.PickleballTutor.com).

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# INTRODUCTION

This drill manual includes:

- Settings: machine position, player position, ball speed, arc/elevation, feed rate/frequency, and options
- Descriptions: how to execute the drills, target locations, and drill options
- Diagrams: player(s), machine, and target positions
- Multi-player options: how multiple players can drill together

Machine settings will likely need to be modified to accommodate altitude, type of balls used, and player skill level. Use the recommended settings as a starting point and fine-tune as needed.

Drill diagram references:



Pickleball Tutor location



Primary drill participant

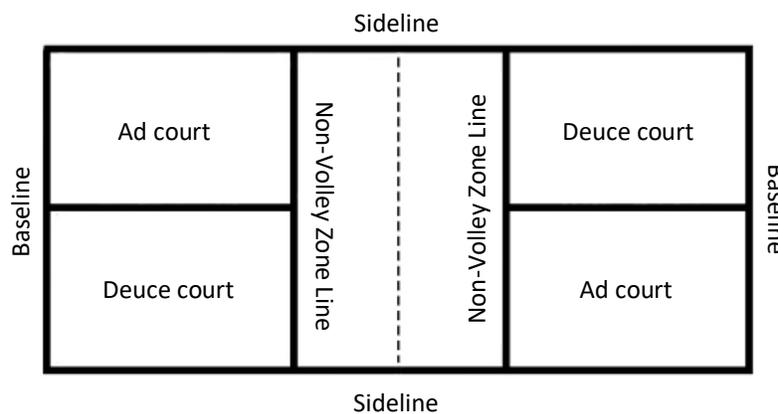


Secondary drill participant



Shot target(s)

Note that tennis terms were used to reference court locations. The deuce court is the right side of the court for a player facing the net. The ad court is the left side of the court for a player facing the net.



If you are truly highly motivated, document your drill performance by tracking results (i.e. percentage of targets hit). Without tracking performance, it is difficult to know if you are improving and if whatever aspects of your game you are training are working (i.e. modifications to your swing or footwork).

It has long been accepted that drills need to be game specific. Standing in one place and hitting thousands upon thousands of balls with the Tutor will not necessarily make you a better player. The drills need to either simulate real game situations or, if practicing single shots, have a competition mindset and practice visualizing yourself in a game situation while hitting each ball. *"Practice doesn't make perfect. Perfect practice makes perfect."* Best is to hit no more than 10 balls in a row, since most pickleball points are relatively short and you will want to keep your focus and energy consistently high.

# GROUNDSTROKE DRILLS

## DEEP GROUNDSTROKES

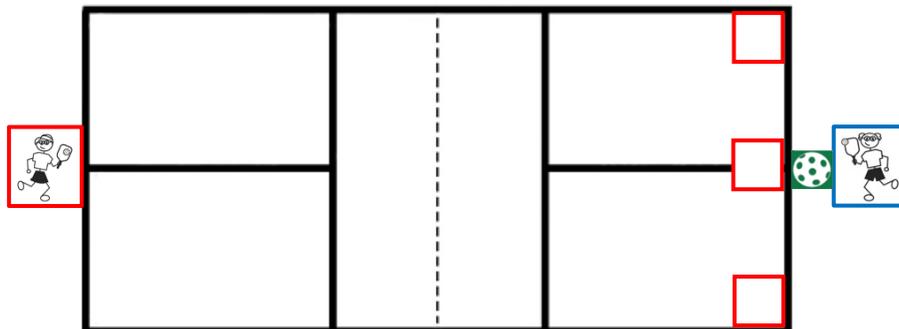
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind baseline midpoint
Speed	4.5
Frequency	4.5
Elevation	4
Options	side-to-side oscillation, random oscillation

### DESCRIPTION

Deep groundstrokes can be used tactically in singles more often than doubles. Deep groundstrokes hit with pace to the opponent's backhand often result in weak returns, allowing you to advance to the Non-Volley Zone (NVZ) line to control the point. Likewise, a short groundstroke hit to the midcourt invites your opponent to advance to the NVZ line.

Between shots, return to the baseline midpoint, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Hit forehand groundstrokes on the deuce side of the court and backhands on the ad side (for a right-handed player). Experiment hitting the ball while it is rising off the bounce (short hop / half volley) and while it is dropping. Also try side-to-side oscillation to alternate forehands and backhands. For variety and unpredictability use the random oscillation feature. Advanced players may want to experiment hitting topspin and backspin as well.



### MULTI-PLAYER OPTION

Slow the feed frequency to allow for each sequence to be completed before the next ball is fed. And, move the machine to a non-hazardous position for the second player. This drill option is a 3-shot sequence. The second player starts at the baseline midpoint. Have them return your groundstroke with a cross-court drop to your backhand. You will then either dink the drop (if it is a low drop), drive the ball deep to your partner (if it is a mid-height drop) or overhead smash the ball (if it is a high, attackable "floater"). The drill ends after you return your partner's drop shot. Note: Since this is a relatively high-movement exercise, try just five sequences in a row and then use your remote to pause the machine. Rotate positions as desired.

## PASSING SHOTS

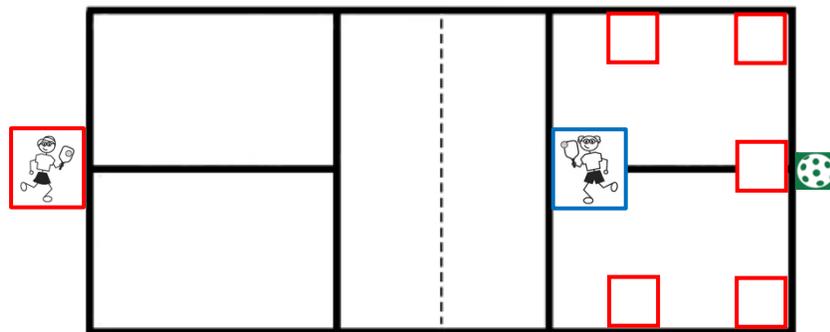
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind baseline midpoint
Speed	4.5
Frequency	4.5
Elevation	4
Option	side-to-side oscillation, random oscillation

### DESCRIPTION

Passing shots are very important when playing singles but are also important in doubles when your opponents might be expecting a third-shot drop. A hard hit third-shot drive often results in a weakly hit volley allowing you and your partner to move up to midcourt to hit an easy fifth-shot drop to advance to the Non-Volley Zone (NVZ) line.

Between shots return to the baseline midpoint, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Hit forehand passing shots on the deuce side of the court and backhands on the ad side (for a right-handed player). Experiment hitting the ball while it is rising off the bounce (short hop / half volley) and while it is dropping. Also try side-to-side oscillation to alternate forehands and backhands. For variety and unpredictability use the random oscillation feature. All passing shots should be hit relatively hard with a little topspin if you have that skill, and relatively low over the net.



### MULTI-PLAYER

Position your practice partner at the NVZ line. Your partner could be positioned at the midpoint of the NVZ line (if focusing on singles play) or at the midpoint of the deuce/ad court NVZ line (if focusing on doubles play). Have them attempt to volley your passing shot. This 2-shot drill ends after your partner volleys your passing shot, or when your finely tuned passing shot whizzes by your partner for a winner! Adjust the machine position for safety and adjust the feed rate to accommodate the drill.

## RETURN OF SERVES

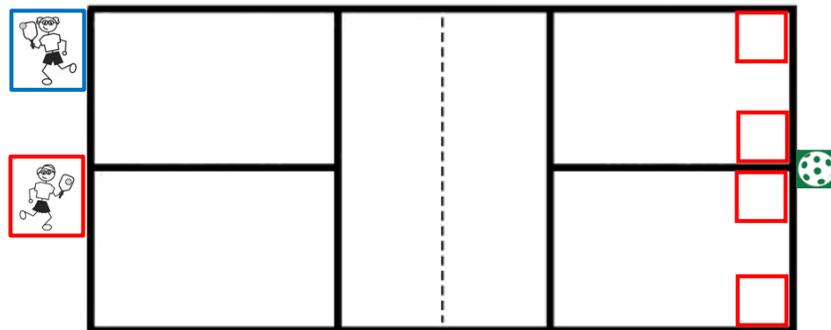
### SETTINGS

Machine position	behind baseline midpoint, pointed at deuce or ad court
Player position	behind baseline deuce or ad court
Speed	4.5
Frequency	4.5
Elevation	4
Options	none

### DESCRIPTION

Rather than being a passive shot, an aggressively hit return of serve can put pressure on your opponent's second shot. The return of serve should be hit with pace but should still allow yourself enough time to reach the Non-Volley Zone (NVZ) line by the time your opponent's third shot crosses the net. The return of serve should normally be hit on your preferred side (the forehand for most players), typically with back-spin, deep to your opponent's backhand.

Between shots recover to the return of serve ready position, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. The return of serve ready position will be dependent on if you are right- or left-handed (below positions are for right-handed players who prefer hitting forehands). Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot, so you are relaxed and focused, not rushed and tight. Experiment hitting the ball while it is rising off the bounce (short hop / half volley) and while it is dropping. Practice from the deuce side and then reposition the machine to return from the ad side. Many variations of this drill can be performed by aiming the feeds to the player's forehand/backhand, and by adjusting the speed/elevation to simulate high-loft serves or short-corner serves.



### MULTI-PLAYER

Position your partner on the same side of the net as you but on the opposite side of the court (see above diagram). Set the machine to side-to-side oscillation. You and your partner will alternate hitting serve returns. If you are hitting returns from the deuce court, then your partner will be hitting returns from the ad court (and vice versa). Hit 10 returns from the side of the court you're on before switching positions with your partner. Continue to switch sides after every 10 return of serves.

# DROP SHOT DRILLS

## DROP SHOTS

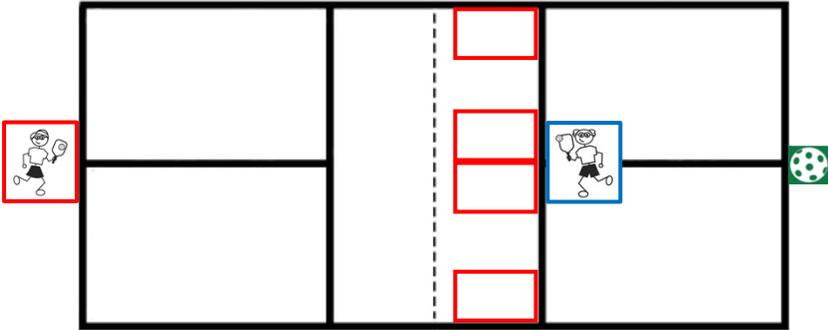
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind baseline midpoint
Speed	4.5
Frequency	4.5
Elevation	4
Options	side-to-side oscillation, random oscillation

### DESCRIPTION

The drop shot is one of the most important shots in pickleball and also one of the most difficult. A player's ability to reliably hit well-placed drop shots is often cited as a key skill of players rated 4.0 and above.

Between shots return to the baseline midpoint, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Hit forehand drop shots on the deuce side of the court and backhands on the ad side (for a right-handed player). Experiment hitting the ball while it is rising off the bounce (short hop / half volley) and while it is dropping. Also try side-to-side oscillation to alternate forehands and backhands. For variety and unpredictability use the random oscillation feature. Advanced players may want to experiment hitting topspin and backspin as well.



### MULTI-PLAYER

Position your practice partner at the midpoint of the Non-Volley Zone (NVZ) line. Have them return your drop shot. Your partner will either dink the drop (if it is a low drop), drive the ball deep to your partner (if it is a mid-height drop) or overhead smash the ball (if it is a high, attackable "floater"). This 2-shot drill ends after your partner returns your drop shot. Adjust the machine position for safety and adjust the feed rate to accommodate the drill.

## DROP SHOTS FROM LOB

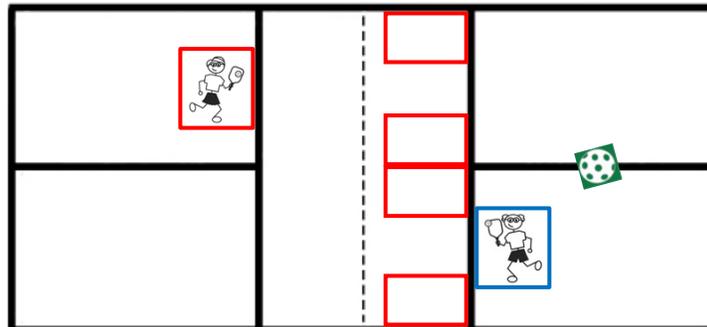
### SETTINGS

Machine position	behind Non-Volley Zone (NVZ) line midpoint, pointed at deuce or ad court
Player position	behind NVZ line midpoint, deuce or ad court
Speed	4
Frequency	2
Elevation	5 with 4-inch shim under front bumpers (if added elevation is needed)
Option	none

### DESCRIPTION

This drill simulates a game situation where an opponent on the NVZ line hits a lob deep to the side of the court opposite of where you are located. If your partner can't easily hit an overhead smash then you should be running diagonally to return the lob off the bounce. For efficiency and safety, when running to return the lob you should be turning and running rather than backpedaling. One of the keys to returning a lob successfully is getting to the ball quickly so that you can be on balance and prepare sufficiently for the shot. Aim your return low towards your targets to simulate hitting at your opponents' feet when they are positioned just behind the NVZ line.

Between shots return to the midpoint of the NVZ line, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Hit forehand drops on the deuce side of the court and backhands on the ad side (for a right-handed player). Alternate rounds of retrieving lobs from the deuce and ad sides of the court.



### MULTI-PLAYER

Position your practice partner in the deuce or ad court, at the midpoint of the NVZ line. Have them return your drop shot. Your partner will either dink the drop (if it is a low drop), drive the ball deep to your (imaginary) partner if a mid-height drop or overhead smash the ball if a high attackable "floater". This 2-shot drill ends after your partner returns your drop shot. Adjust the machine position for safety and adjust the feed rate to accommodate the drill.

## RETURNING DROP SHOTS

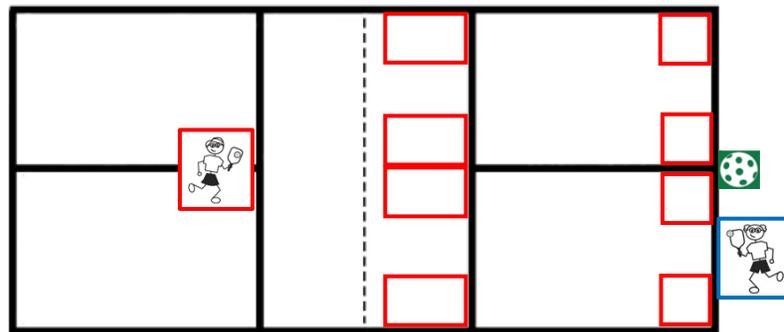
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind Non-Volley Zone (NVZ) line midpoint
Speed	3.5
Frequency	4.5
Elevation	5
Option	side-to-side oscillation

### DESCRIPTION

This drill feeds drop shots from the back of the court requiring the participant to quickly assess the quality of the drop shot and decide to either hit a return dink (dink volley or dink off the bounce), swing volley or punch volley (see volley drills for descriptions). This is an important game situation and one that often results in errors. Players often make the mistake of attacking a low drop shot, either hitting it into the net or hitting too high, setting up the opponent for an easy overhead smash winner.

Between shots return to the midpoint of the NVZ line, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Hit forehands on the deuce side of the court and backhands on the ad side (for a right-handed player).



### MULTI-PLAYER

Your partner needs to recognize and react to the probably of the shot you decide to hit based on the quality of the feed from the machine and how challenging a position you are placed. If your partner can advance, then they will return your dink with a return dink. Otherwise, your partner will stay at the baseline and return your swing volley or deep punch volley with a drop shot to your feet. This 2-shot drill ends after your partner returns your shot off the feed from the machine. Adjust the Pickleball Tutor position for safety and adjust the feed rate to accommodate the drill and your playing level.

# DINK DRILLS

## CROSSCOURT DINKS

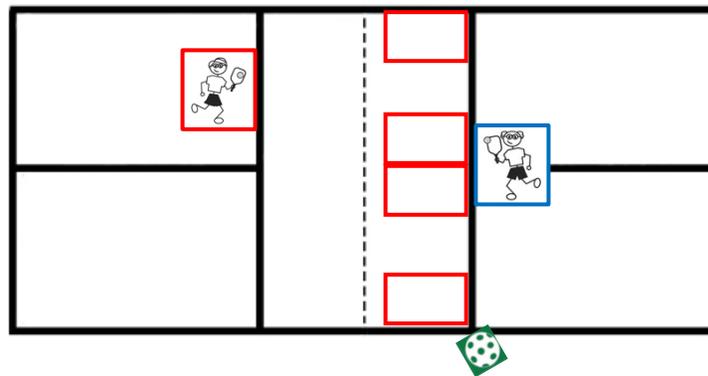
### SETTINGS

Machine position	sideline / Non-Volley Zone (NVZ) line, pointed at opposite sideline / NVZ line
Player position	behind NVZ line midpoint, deuce and ad courts opposite of Tutor
Speed	3
Frequency	4
Elevation	5
Options	none

### DESCRIPTION

The dink shot looks easy but it can be challenging to reliably hit unattackable dinks. Most dink shots should be hit crosscourt, allowing the arc of your dink to cross over the center of the net where the net height is the lowest. Well-hit angled dinks will also pull your opponent out of position.

Between shots, return to the midpoint of the NVZ line on your side of the court, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot, so you are relaxed and focused, not rushed and tight. Hit forehand dinks on the deuce side of the court and backhands on the ad side (for a right-handed player). Hit most dinks crosscourt but also hit some down-the-line. Hit a full round of dinks from one side of the court before swapping the Tutor location to the opposite side of the court. NOTE: When drilling, be careful not to hit too many balls in a row. Best is to hit a modest number like 10 shots and then pause to recover physically and also to re-focus your concentration, similar to what the best competitors do in real game situations.



### MULTI-PLAYER

When a hitting partner is available, hit the first shot off the machine down-the-line. The practice partner then moves to the ball and counters with a crosscourt angled dink. End the sequence here for a 2-ball sequence. Optionally, let the first player chase down the angled dink and return that shot crosscourt for a high-energy 3-ball sequence. Adjust the feed rate of the machine to accommodate the timing needed for this drill concept.

## SIDE-TO-SIDE DINKS

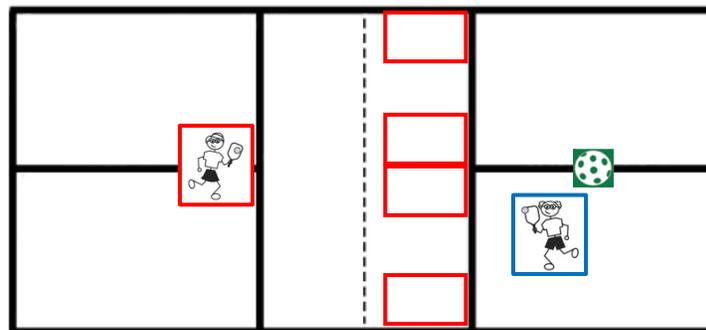
### SETTINGS

Machine position	midcourt, pointed straight ahead
Player position	behind Non-Volley Zone (NVZ) line midpoint
Speed	2
Frequency	6
Elevation	5 with 1-inch shim under front bumpers (if added elevation is needed)
Option	side-to-side oscillation

### DESCRIPTION

This drill is a variation of the above "Crosscourt Dinks" drill. Although the feed location and return dink angles may not be typical of a real game situation, this drill does allow more variation and is useful to avoid repetitiveness when practicing your dink shot.

Between shots return to the midpoint of the NVZ line, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Hit forehand dinks on the deuce side of the court and backhands on the ad side (for a right-handed player). Hit most dinks crosscourt but also hit some down-the-line.



### MULTI-PLAYER

When a hitting partner is available, hit the first shot off the machine down-the-line. The practice partner then moves to the ball and counters with a crosscourt angled dink. Stop here for a 2-ball sequence. Optionally, let the first player chase down the angled dink and return that shot crosscourt for a high-energy 3-ball sequence. Adjust the feed rate of the machine to accommodate the timing for this drill concept.

# VOLLEY DRILLS

## SWING VOLLEYS

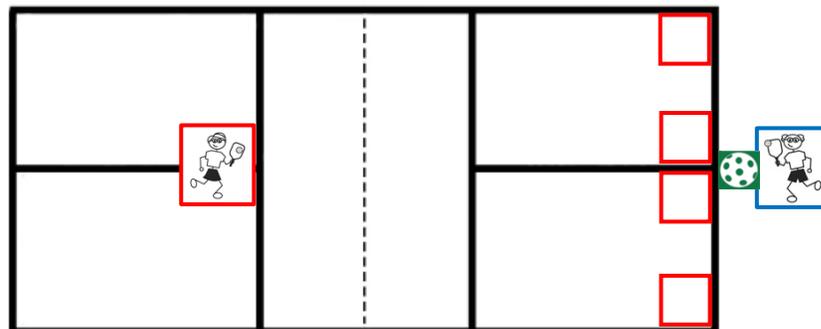
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind Non-Volley Zone (NVZ) line midpoint
Speed	4
Frequency	4.5
Elevation	4.5
Option	side-to-side oscillation, random oscillation

### DESCRIPTION

The swing volley is an attacking shot and has a larger backswing compared to a "punch volley" (see next drill). The swing volley is hit with a low to high paddle movement to generate some topspin. The swing volley is often hit when a slower paced ball is hit slightly high above the net and you can contact the ball above your waist. The ball should be hit deep in the court to prevent your opponent(s) from advancing to the NVZ line.

Between shots return to the midpoint of the NVZ line, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Try side-to-side oscillation to alternate forehands and backhands. For variety and unpredictability use the random oscillation feature. Experiment hitting forehand and backhand volleys, both cross court and down-the-line.



### MULTI-PLAYER

Position your practice partner at the baseline midpoint. Have them return your swing volley with a drop or dink. You will either dink the drop (if it is a low drop), drive the ball deep to your partner (if it is a mid-height drop) or overhead smash the ball (if it is a high, attackable "floater"). This 3-shot drill ends after you return the drop shot. Adjust the feed rate of the machine to accommodate the timing for this drill concept, and the position of the machine should be changed to one side of the court and you should aim to the other side for obviously safety reasons.

## PUNCH VOLLEYS

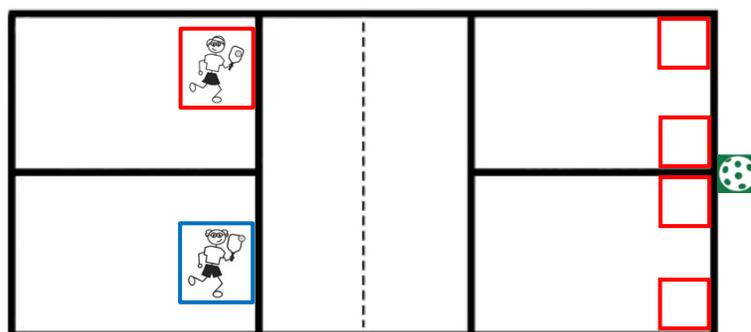
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind Non-Volley Zone (NVZ) line midpoint
Speed	4.5
Frequency	4.5
Elevation	4
Options	side-to-side oscillation, random oscillation

### DESCRIPTION

The punch volley is a shot with much less backswing compared to a groundstroke. It is typically hit against hard hit groundstrokes that have little arc and don't allow for a lot of shot preparation. The ball is struck with a short "punch" or jab motion and placed deep in the court. The goal is to prevent your opponent from advancing forwards toward the NVZ line.

Between shots return to the midpoint of the NVZ line, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Try side-to-side oscillation to alternate forehands and backhands. For variety and unpredictability use the random oscillation feature. Experiment hitting forehand and backhand volleys, both crosscourt and down-the-line.



### MULTI-PLAYER

Use random oscillation for this drill. Position yourself behind the midpoint of the ad court NVZ line and your partner behind the midpoint of the deuce court NVZ line (or vice-versa). You and your partner will need to communicate when the random feeding machine occasionally throws the ball down the middle of the court. Don't let indecision beat you on this drill! Just like during a game, this drill will help you and your partner quickly and effectively react to balls that are driven up the middle of the court. You and your partner will return 10 balls in your original positions before swapping sides. Continue to alternate sides every 10 balls.

## BLOCK VOLLEYS

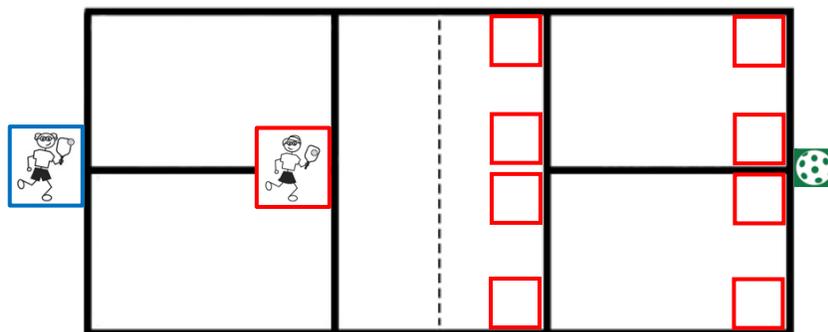
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind Non-Volley Zone (NVZ) line midpoint
Speed	5
Frequency	4.5
Elevation	3
Option	side-to-side oscillation, random oscillation

### DESCRIPTION

The block volley is a volley with little to no backswing, usually to block a hard driven ball back deep into the opponent's court. When preparing to hit a block volley be very cognizant of the ball's speed and trajectory as many hard-hit balls may rebound too fast off your paddle and sail out past the baseline.

Between shots return to the midpoint of the NVZ line, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Try side-to-side oscillation to alternate forehands and backhands. For variety and unpredictability use the random oscillation feature. Experiment hitting forehand and backhand volleys, both crosscourt and down-the-line. Practice hitting to various targets repeatedly to gain more control over this very important shot!



### MULTI-PLAYER

Position your partner on the same side of the net as you, but at the baseline. First, you will hit 10 block volleys. Your partner will be near the baseline and will make the call whether or not any of the fed balls you decide to leave land in the court or land out past the baseline. This will help you improve your ball recognition skills. After all, if your opponent hits a ball that is going to sail long, better to leave it alone than attempt a shot you may miss! Therefore, it is important to set the machine to feed the ball so it lands around the baseline, since inevitably some of those feeds will bounce out of bounds. After 10 balls are fed, switch positions with your practice partner. Continue to switch every 10 balls. Keep score if you'd like to make the drill competitive and play until one player reaches 11 or 21 points.

- +1 for hitting a block volley in the court (but not in a target)
- +2 for hitting a block volley in a NVZ or baseline target
- +2 for not hitting a ball that lands out of the court
- 1 for hitting a block volley into the net or out of the court
- 2 for not hitting a ball that lands in the court

## POACH VOLLEYS

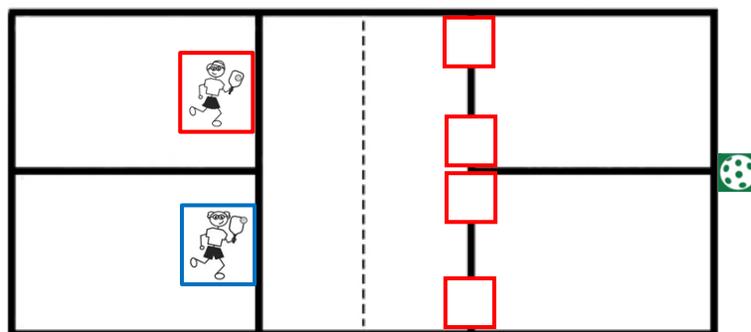
### SETTINGS

Machine position	behind baseline midpoint, pointed slightly to one side or the other
Player position	behind Non-Volley Zone (NVZ) line midpoint
Speed	4
Frequency	4.5
Elevation	4.5
Option	none

### DESCRIPTION

A poach volley is a volley that you hit on the opposite side of the court from where you were originally positioned. Oftentimes, right-handed players with strong forehands will move from the ad court to the deuce court to poach in doubles so they can attack a ball with their forehand.

Between shots return to the NVZ line on one side of the court or the other, depending on whether you want to practice a forehand or backhand poach volley. Then, when you see the feed coming, take a split step (or at least flex your knees to facilitate a quick first step to the ball), hit the poach volley off the feed that is directed up the middle of the court. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. All volleys should be hit relatively hard and at the feet of the imagined opponent's backhand. Hit five continuous volleys from the ad side, then five volleys from the deuce side and continue to change sides every five volleys. For added difficulty, start at the sideline (rather than at the midpoint of the deuce or ad courts to extend yourself to be able to cover more ground when attempting to poach.



### MULTI-PLAYER

Position yourself at the midpoint of the NVZ line on one side of the court and your practice partner at the midpoint of the NVZ line on the other side of the court (see diagram above). For this multiplayer drill, the Tutor will need to be positioned straight ahead. Hit two poach volleys from your side of the court and then your partner will hit two poach volleys from their side of the court. Continue alternating until the round of balls is finished. Afterwards switch sides. For extra fun and focus, keep score with one point awarded for each time a target is hit. Play until one player reaches five points.

# OVERHEAD SMASH DRILLS

## OVERHEAD SMASH FROM NON-VOLLEY ZONE (NVZ) LINE

### SETTINGS

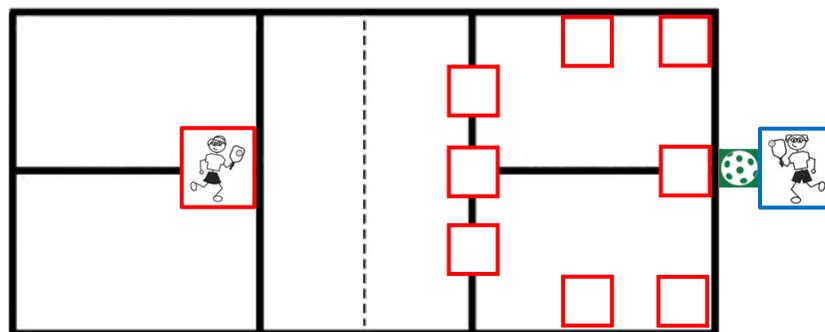
Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind NVZ line midpoint
Speed	4
Frequency	3.5
Elevation	5 with 2-inch shim under front bumpers (if added elevation is needed)
Options	side-to-side oscillation, random oscillation

### DESCRIPTION

The overhead smash hit from the NVZ Line is an offensive weapon. Unfortunately, players often swing with all their strength to crush the ball, and regularly overhit or dump it into the net. Although a hard smash can impress your fans in the bleachers, it's better to take a little off, and hit it accurately and consistency with moderate power. From a technique standpoint, remember to extend your non-paddle hand to both balance yourself and track the ball.

Like all ball machine drilling, be sure to return to the midpoint of the NVZ line between shots with a split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Try side-to-side oscillation to alternate forehand and backhand overheads, but generally take it with your "forehand" or throwing motion side as much as possible. For variety and unpredictability use the random oscillation feature. Experiment hitting forehand and backhand smashes, both crosscourt and down-the-line.

To simulate if your opponents are positioned at the NVZ line, hit the ball at the targets at the NVZ line (at their feet). To simulate when your opponents are at the baseline, then hit the baseline targets to keep your opponent(s) deep in the court or attempt to hit the two targets placed near the sideline at midcourt. Hitting the ball with an acute angle to these targets will often result in an outright winner.



### MULTI-PLAYER

Position your practice partner at the baseline midpoint to return your overhead smash. The goal of your partner is not just to return your overhead but to drop it with accuracy into the NVZ, so they can advance to the NVZ line. You will either dink the drop (if it is a low drop), drive the ball deep to your partner (if it is a mid-height ball), or overhead smash the ball again (if it is a high and attackable "floater"). The drill ends after you return the drop shot, making this a 3-shot drill. Since the mid-court machine position creates a safety hazard, feed the initial lob from one side of the court or the other and hit the first overhead to the open court where the machine is not located.

## OVERHEAD SMASH FROM BASELINE

### SETTINGS

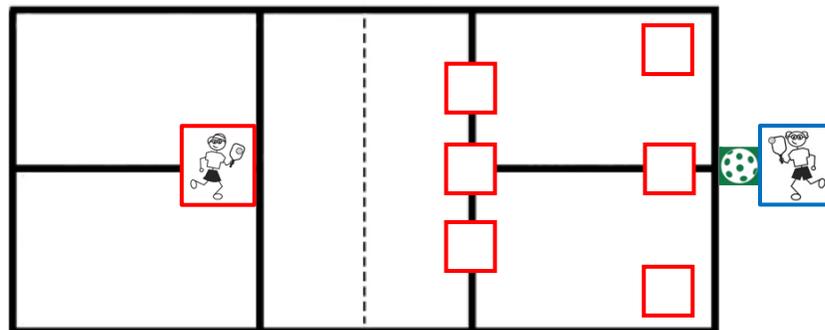
Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind Non-Volley Zone (NVZ) line midpoint
Speed	4
Frequency	3.5
Elevation	5 with 3-inch shim under front bumpers (if added elevation is needed)
Option	side-to-side oscillation, random oscillation

### DESCRIPTION

Compared to hitting an overhead smash at the NVZ line, an overhead smash at midcourt or near the baseline is often less of an offensive shot. Again, it's important to emphasize that the overhead smash should not be an all or nothing type of swing. The ball should be hit with pace but with a controlled swing, emphasizing the use of the wrist to direct and control the ball, especially if the ball is slightly behind you. When hitting an overhead you should also raise your non-paddle hand to balance yourself and track the ball. NOTE: For safety and efficient movement, be sure to turn and either sidestep shuffle or crossover step to move backwards. For obvious safety reasons, never backpedal!

Between shots return to the midpoint of the NVZ line, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Try side-to-side oscillation to alternate forehands and backhands, but generally take it with your "forehand" or throwing motion side as much as possible. For variety and more realistic drilling use the random oscillation feature. Practice hitting forehand and backhand smashes to different targets.

If your opponent(s) are positioned at the NVZ line then hit the ball at the targets at the NVZ line (at their feet). If your opponents are at the baseline then hit the baseline targets to keep your opponents deep in the court.



### MULTI-PLAYER

Position your practice partner at the baseline midpoint. Have them return your overhead smash. The goal of this player is not just to return your overhead smash but to drop it with accuracy into the NVZ since you were just moving backwards to hit the smash. You will either dink the drop (if it is a low drop), drive the ball deep to your partner (if it is a mid-height drop) or overhead smash the ball again (if it's a high attackable "floater"). This 3-shot drill ends after you return the drop shot. Since the machine position creates a safety hazard, move the machine to one side to feed the initial lob and hit the first overhead to the open court where the machine is not located. Adjust the Pickleball Tutor feed rate to accommodate the drill.

# LOB DRILLS

## LOB FROM DINK (OFFENSIVE)

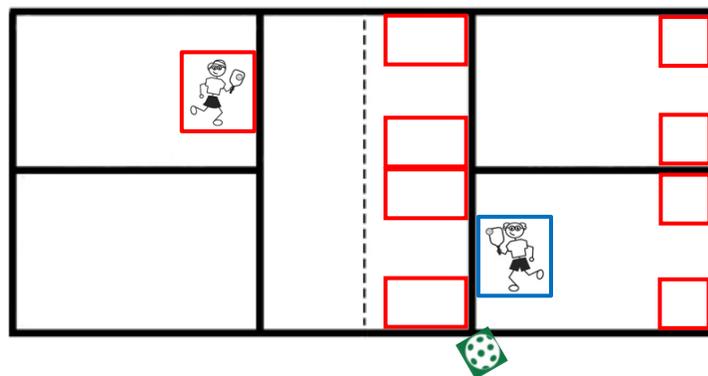
### SETTINGS

Machine position	Sideline NVZ line, pointed at opposite sideline NVZ line
Player position	behind NVZ line midpoint, deuce and ad courts opposite of Tutor
Speed	3
Frequency	3.5
Elevation	5
Option	none

### DESCRIPTION

This is a fairly advanced drill. Hit three crosscourt dinks and then an offensive low arcing lob to the baseline targets. The idea is that if your opponent knows you have an offensive lob in your toolkit, then during a dinking exchange they will be anxious, knowing that they may have to sprint to the baseline to return a well-placed lob. The more your opponent must think about which shot you might use, the less time and attention they will focus on what shot they want to hit. Prior to hitting a lob, be sure to hitting over their backhand side as much as possible. It's much easier to hit a lob past your opponent when the ball doesn't have to travel within reach of their regular forehand overhead. Hit lobs only high enough to pass beyond your opponent's reach to give them less time to track down your shot.

Between shots return to the midpoint of the NVZ line on your side of the court, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Try to prepare close to the same on all shots to disguise your intent. Hit 12 shots on each side of the court.



### MULTI-PLAYER

Position your practice partner at the midpoint of the NVZ line on the opposite side of the court from you. Have them return your crosscourt dinks straight down-the-line (away from you). When you hit a lob to the opposite side of the court from your partner (in the above diagram, in the deuce court), your partner will either hit an overhead smash (if the lob is vulnerable to attack) or hit to your feet (if the lob is hit accurately). This two-shot drill ends after your partner returns your dink or lob. Adjust the machine position for safety and adjust the feed rate to accommodate the drill.

## LOB FROM OVERHEAD SMASH (DEFENSIVE)

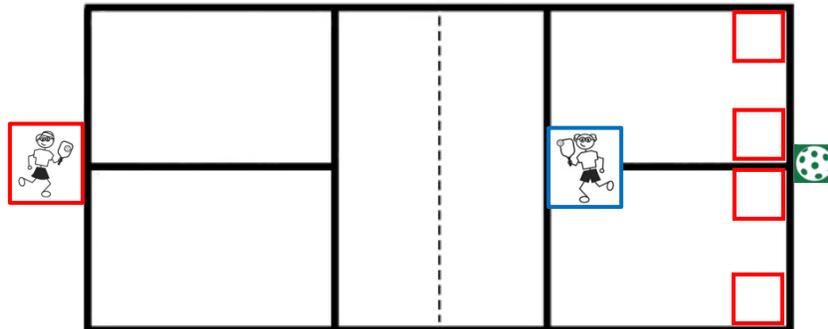
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind baseline midpoint
Speed	5
Frequency	4
Elevation	3.5
Option	side-to-side oscillation, random oscillation

### DESCRIPTION

A defensive lob is a useful tool for getting you and your partner out of a bind. It is difficult to hit an accurate drop shot off an overhead smash when your opponents are controlling the Non-Volley Zone (NVZ) line while you and your partner are on your own baseline. Best to hit a high and deep defensive lob over your opponents' heads to push at least one of them back to their baseline. This tactic can allow you and your opponent to advance to the NVZ line.

While the Pickleball Tutor cannot feed a smash, set the machine to feed a hard groundstroke to practice this drill. In between shots return to the midpoint of the baseline, split step (or at least flex your knees to facilitate a quick first step to the ball), and then hit the next feed. Move quickly to the ball but don't start until you see the feed coming to make your practice as realistic as possible. Your goal is to get into position and on balance for each shot so you are relaxed and focused, not rushed and tight. Hit the defensive lob high and deep enough to ensure your return isn't attackable. Try side-to-side oscillation to alternate forehand and backhand lobs. And, for variety and unpredictability, use the random oscillation feature.



### MULTI-PLAYER

This is a fairly advanced drill. Position your practice partner at the midpoint of the NVZ line. Have them return your lob with an overhead smash. If you hit your lob sufficiently deep and effective you can then advance to the NVZ line and try to volley the overhead smash deep or hit a drop volley. If you don't hit your lob well, remain on the baseline and your second shot can either be a drop at your opponent's feet or another lob. Stop the drill after your second shot. This 3-shot drill ends after you return the overhead smash. For safety reasons, adjust the machine position to one side of the baseline instead of in the middle. Also adjust the feed rate to accommodate the drill.

# OTHER DRILLS

## CAPTURE THE NON-VOLLEY ZONE (NVZ)

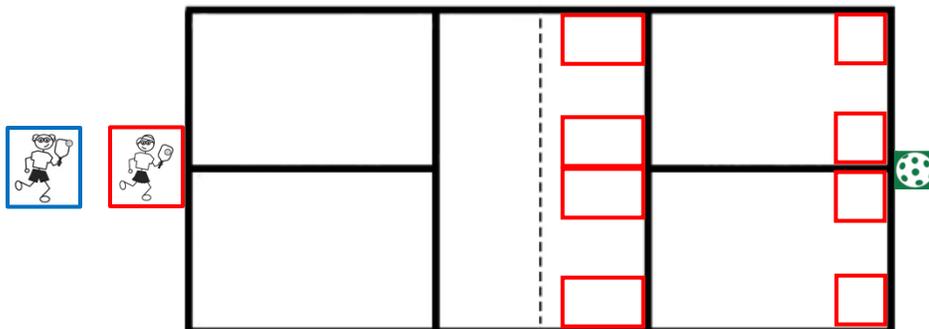
### SETTINGS

Machine position	behind baseline midpoint, pointed straight ahead
Player position	behind baseline midpoint
Speed	4.5
Frequency	5
Elevation	4
Option	side-to-side oscillation, random oscillation

### DESCRIPTION

This drill simulates a game situation where you are trying to move forward to the NVZ line.

First, hit a drop shot from the baseline. Then take as many steps as you can toward the NVZ, split step (or at least flex your knees to facilitate a quick first step to the ball), and hit another drop, likely a volley drop. Hit as many drop shots as it takes to reach the NVZ. Ensure you are split stepping or flexing, and both feet are planted before you hit the ball. You should not be hitting the ball on the run. Hit forehand drop shots on the deuce side of the court and backhands on the ad side (for a right-handed player). Try side-to-side oscillation to alternate forehands and backhands. For variety and unpredictability use the random oscillation feature. After you reach the NVZ line, hit a deep punch volley or angled volley. After hitting this final shot, return to the baseline and repeat. When returning to the baseline, allow one feed to pass by before hitting your first shot (to give you sufficient time to return to the baseline).



### MULTI-PLAYER

Position your practice partner behind you. After you capture the NVZ line, exit the court via the sideline. After your last shot, your partner will hit the next ball and begin approaching the NVZ line. Continue alternating attempts to capture the NVZ line. Like all drills, always be safe and take care not to trip on balls that may roll across your path.

## AROUND THE POST

### SETTINGS

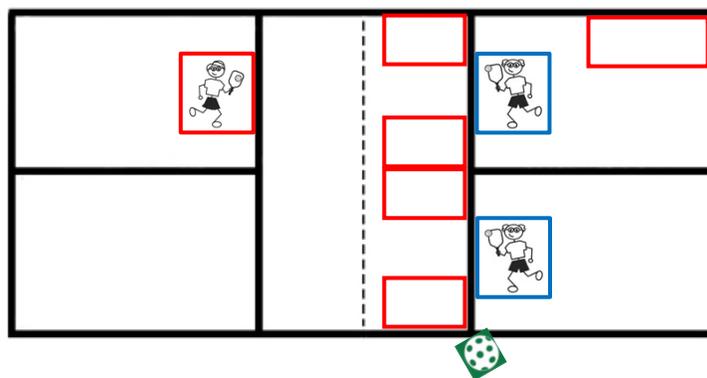
Machine position	Sideline and NVZ line intersection pointed at opposite sideline and NVZ line
Player position	behind NVZ line midpoint, deuce and ad courts opposite of Tutor
Speed	3
Frequency	3
Elevation	5
Option	none

### DESCRIPTION

The “around the post” shot is an exciting tactical shot which is becoming more and more common, especially for high-level athletic players. If you hit an around the post shot, you can both surprise your opponent(s) and take the wind out of their sails with one single shot. It is also a great crowd pleaser! Your chance to hit this shot occurs when your opponent hits a great angle shot that pulls you off the court. Keep in mind that the ball just must land in the court. If you hit the ball around the net post, hit it relatively hard and remember that it can pass far below net height with little or no arc.

Your ready position should be in the midpoint of the NVZ line on the opposite side of the court from where the Tutor is set up. It's important that you don't cheat toward the baseline. If you cheat to the baseline during a game then it's likely your opponents will see the midcourt gap and hit a winner down the middle of the court between you and your partner (assuming you are playing doubles). Return shallower dinks with dinks but when a dink is fed sufficiently wide, move quickly and hit the outside of the ball to direct it back towards the court, although it will pass around the net post! Hit a full round of dinks and around the post shots from each side of the court, taking short recovery breaks at least after every 10 shots.

The around the post shot target should be relatively deep, near the baseline, on the same side of the court that the around the post shot was attempted. The short targets are for your dink shots.



### MULTI-PLAYER

This is a great drill if you have two practice partners available. Position your partners at the midpoint of the NVZ line on the opposite side of the net (see diagram). Your practice partners will return your dinks to the side of the court you aren't positioned at. When you do attempt the around the post shot, the player closest to you will attempt the around the post shot block shot - arguably another of the most extraordinary shots in the game of pickleball! After hitting a round of balls, have each player rotate clockwise. Adjust the feed rate of the machine to accommodate the timing needed for this drill.

# DRILL VARIATIONS

The Pickleball Tutor settings and drill descriptions are intended to provide you with a quick reference guide to set up your Tutor and start drilling. The drills provided are only a handful of drills that can be performed. You are encouraged to invent new drills and to modify the above drills to meet your needs and keep your practice sessions fun and exciting! Here are a few ideas to modify the drills in this booklet.

## CREATIVE DECISION MAKING

During competitive play, it's important that players think on their feet, quickly analyze the strategic and tactical situation of the moment and hit the appropriate shot, with the ideal amount of arc, speed, depth, and direction. The varieties of possible shots are virtually endless, so much so that you will probably never hit the exact same two shots in your entire career on a pickleball court! Your capacity to spontaneously adapt to this "open" aspect of pickleball can be challenged if your practice sessions are too repetitive.

Here's a creative concept to further spice up any practice session: Load the machine hopper with half orange and half yellow balls. Simply hit a different shot depending on which color ball is fed (e.g. backspin if orange versus topspin if yellow; groundstroke if orange versus drop shot if yellow, etc.). You can also make the options directional (e.g. hit crosscourt if orange versus down-the-line if yellow, etc.).

## PICKLEBALL TUTOR SETTINGS

The Tutor settings provided are just a starting point. Drills can be varied by moving the machine to different places on the court and experimenting with different ball speed, arc, and frequency. Similarly, although several of the drills in this booklet are described without oscillation, setting your machine random oscillation or side-to-side oscillation can also add more variety to your practice sessions.

## PLAYER AND TARGET POSITIONS

Although the drill descriptions indicate where you should position yourself, this can also be modified according to your specific goals. Plus, where you set up your targets and the variety of shots you hit can also be modified. Be creative!

## MULTI-PLAYER DRILLING

Generally speaking, only one multi-player drill is described for each drill concept in this manual. However, for each drill there is usually the option of having a partner on the opposite side of the court (simulating your opponent) or on the same side of the court (your doubles partner or just a second player to rotate with). When you are practicing with a player on the same side of the court, you can either include them in the drill at the same time (requiring you and your partner to decide who hits the ball) or have them rotate into the drill after a set number of balls have been hit. Most multi-player drills we included in this booklet call for only two players, but obviously three or four could be incorporated into most drills.

The number of drills and drill variations are endless. Use your imagination and be sure to share your ideas with your peers! Above all, keep your drilling both fun and focused!