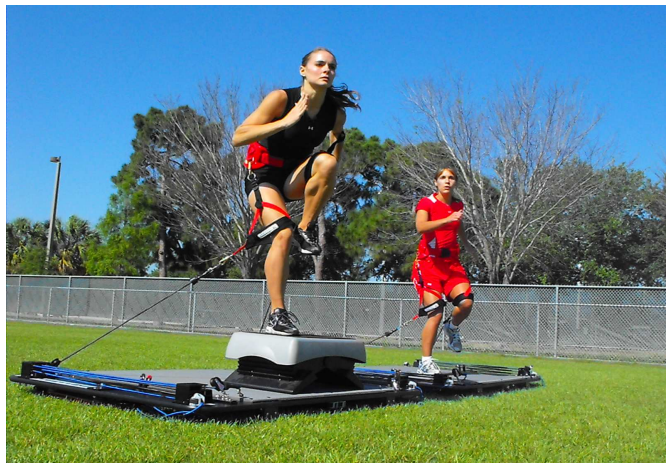
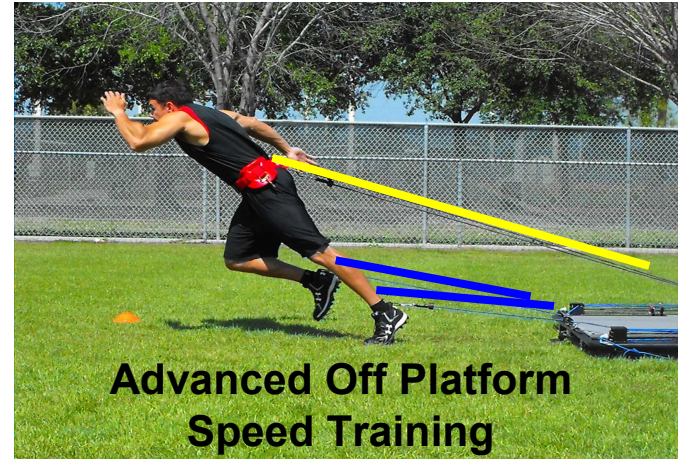


# VERTIMAX

***ANY ATHLETE, ANY SPORT, VERTIMAX WILL TAKE YOU TO THE NEXT LEVEL***

## **VertiMax V8 Vertical Jump & Speed Training Program**



**Simultaneous leg  
& arm loading for  
maximum vertical  
gains!**

## **Table of Contents**

V8 Training Advantages Summary.....	Page 3
All-Sport Training Program Important Facts..	Page 4
All-Sport Training Program Important Notes..	Page 5-6
All-Sport Training Program Summary.....	Page 7
Jump Training (On Platform).....	Page 8-12
Hip Flexor Training (On Platform).....	Page 13-16
Lateral Acceleration (Off Platform).....	Page 17-20
Three/Four Point Start (Off Platform).....	Page 21-22
Back Pedal (Off Platform).....	Page 23-24
Off-Platform Hip Flexor.....	Page 26-28
Quarterback Drop Back.....	Page 29-30
Catcher Pop & Throw.....	Page 31-32
Shot-Put.....	Page 33-34
Baseball Swing Training.....	Page 35-36
Slide Board (Skating).....	Page 37-38

# **VertiMax V8 Training Advantages**

**Represents a training breakthrough that elevates explosive power development to new levels which are highly relevant to improving competitive performance.**

**How does the V8 accomplish this?**

- **Allows explosive training under load with 100% effort utilizing sports specific motions on three axis. This type of training will place the highest demand for synchronized motor unit recruitment and firing and the human body will adapt to more efficiently satisfy the training demands.**

**Provides improved training response that is more applicable to competition**

- **Addresses “Loading Neglect” by simultaneous loading of drive & swing phase during acceleration, arm & leg while jumping and adductor / abductor during lateral movement. Avoids unbalanced loading!**

**To view the “Why VertiMax” video which is the most important video to view to understand the function and advantages of the Vertimax system please visit:**

**[www.vertimax.com](http://www.vertimax.com) and click on the “Why VertiMax” link next to the “Home” link**

# All Sport Training Program Important Facts

Designed to maximize explosive power focusing on improving:

- The vertical jump
- First step quickness and
- Overall athleticism

Program involves a combination on-platform and off-platform training comprising the most fundamental athletic movements required in most all sports.

Recommended frequency 2-3 times/week off season, 1-2 times/week in season (8 to 9 year olds once/week on average)

This program is for advanced athletes typically 14 years of age or older but can be used by younger athletes **IF** fewer resistance bands are utilized in the multi-band configurations and arm loading and foot loading exercises are eliminated.

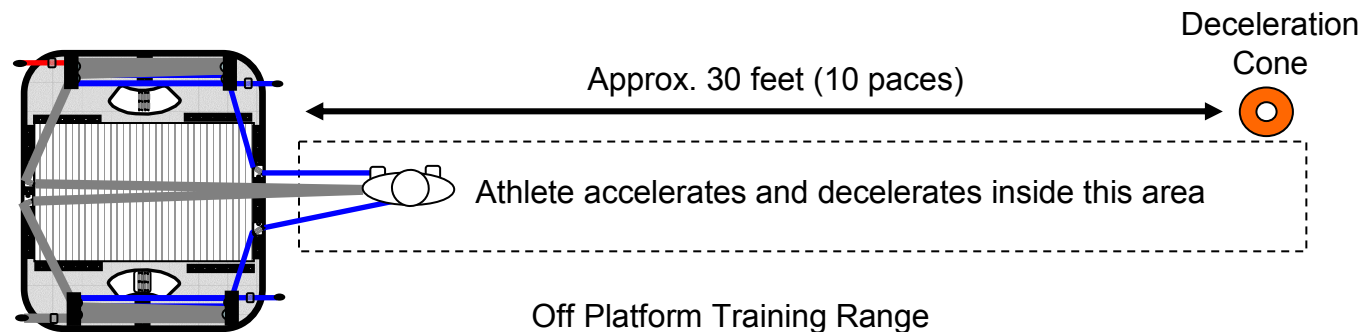
If any athlete appears to struggle to maintain form or natural movement mechanics during these drills, there is either too much resistance applied or the athlete is simply not developed enough relative to core and functional strength to properly & safely perform the exercise. Goal is to perform exercises at high speed against load moving as naturally as possible!

## All-Sport Training Program Important Notes

1. For this training program resistance levels are set at minimum levels and as the athlete progresses through the program, resistance is increased by adding additional bands as opposed to making small incremental adjustments by extracting the bands through the resistance cam cleats. This allows the athlete to quickly progress through each exercise without having to change resistance by extracting the bands out of the platform through the cam cleats. It is therefore important to remember that if you are working with a younger athlete, you do not have to add additional bands as the configurations show through the workout progression. You can simply make a small incremental adjustment by extracting the bands through the cam cleats and only connecting two bands to the athlete. For instance, a younger athlete (typically 12 years old or younger) performing jump training would only perform multiple sets using Configuration 1 (on Page 8). They would not progress to Configurations 2, 3 and 4 on pages 9, 10 and 11 respectively which show more bands being added to the athlete. While using Configuration 1 on Page 8, if a younger athlete wanted to increase resistance they would just extract the cords from the VertiMax through the resistance adjustment cam cleat to make small incremental resistance adjustments.
2. Arm loading while jump training should only be performed by strong jumpers (13+ years) using only the ¼ inch diameter bands set at minimum resistance connected to the hands. No matter what age the athlete is, if they look destabilized and their jumping form is significantly disrupted they should not try to jump with resistance bands connected to the hands. One option for this case is to allow the athlete to train arm swing using the jumping movement but do not allow them to become airborne – stay grounded! This allows younger athletes to safely without having them leave the platform.
3. When performing off-platform training a minimum of one resistance band must always be attached to the waist to maintain stability. **NEVER CONDUCT OFF PLATFORM TRAINING WITH BANDS CONNECTED TO THE FEET ONLY!!!!**

## All-Sport Training Program Important Notes (Continued)

- 4) Athletes under the age of 13 should not perform any explosive (high speed) multi-step off platform exercises with resistance bands attached to both feet. Single step movements with  $\frac{1}{4}$  inch diameter bands connected to the feet may be attempted if the athlete can perform the movement without significantly disrupting their natural mechanics.
- 5) Jump training configurations shown on pages 9, 10 and 11 are for advanced athletes. Most athletes under the age of 13 should NOT jump train with arm loading or hip flexor training configurations shown on pages 14 and 15 which are for advanced athletes. Athletes under the age of 14 should limit their hip flexor training Exercise 2 – Configuration 1 on page 13.
- 6) All Off platform multi-step drills must be limited to three step movements. Athletes should remain within 30 feet of the VertiMax unit when doing off-platform drills. Prior to conducting multi-step drills the athlete should place a deceleration marker (orange cone) approximately 10 to 12 paces from the VertiMax V8 unit. This cone serves as a visual deceleration marker that alerts the athlete to begin deceleration as they approach the marker. This will allow the athlete to start three step acceleration drills at the platform's edge and end the third step of the three step movement near the cone at which time they decelerate with the aid of the cord connected to the waist.

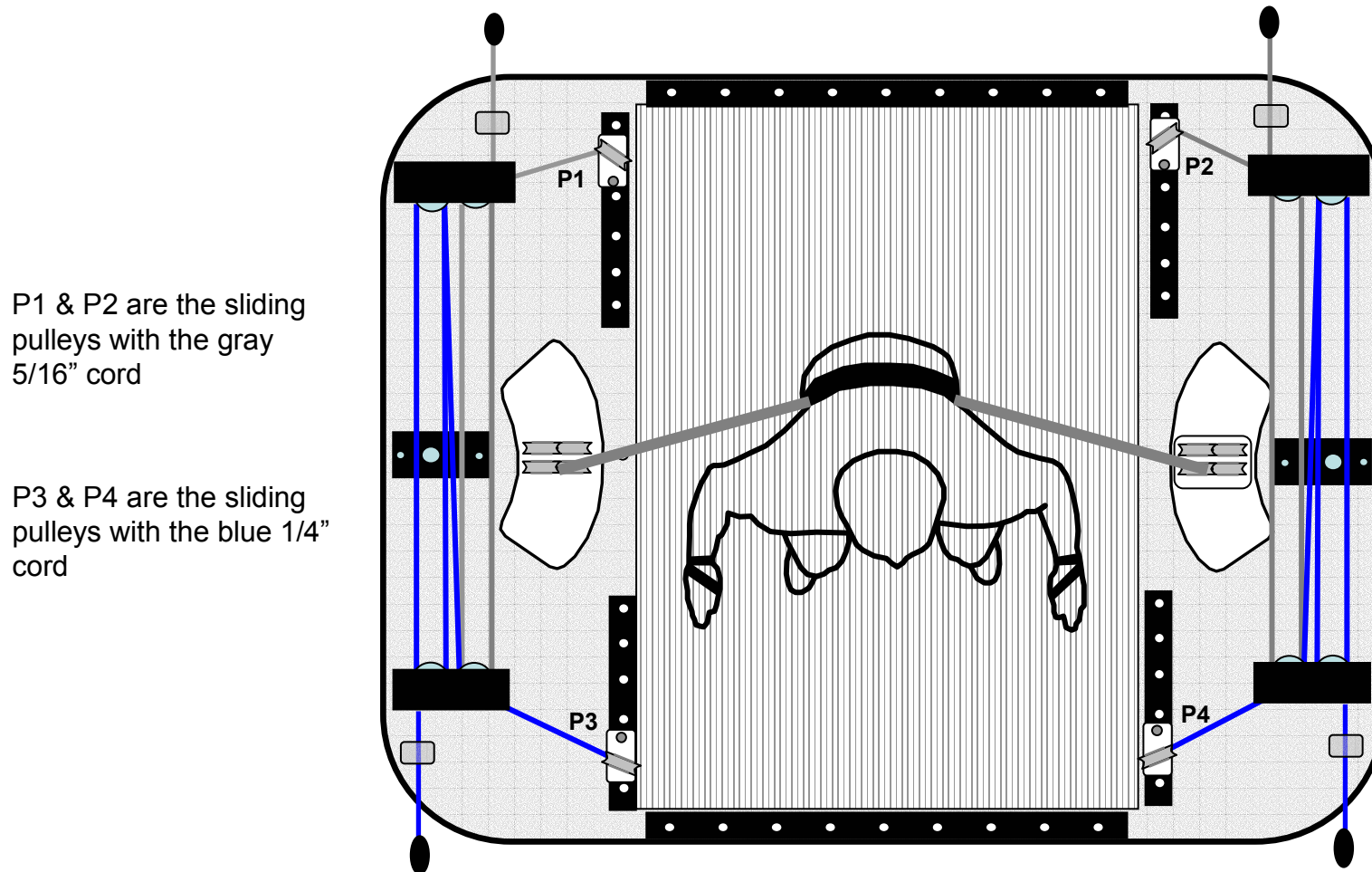


## **All-Sport Training Program Summary**

- 1) Vertical Jump: Pages 8,9,10 & 11 (24 total reps leg only + 24 total reps leg & arm loading) 48 total reps**
- 2) On-Platform Hip Flexor: Pages 13,14 & 15 (3 resistance levels, 10 reps each leg per resistance level) 30 reps total each leg. Younger athletes use page 13 config. only!**
- 3) Off-Platform Lateral Speed : Pages 19 & 20**
  - a) (3-4 sets, 2 reps/set high speed lateral cross-over right (3 step explosions/rep))**
  - b) (3-4 sets, 2 reps/set shuffle right (4 steps and slides/rep))**
  - c) (3-4 sets, 2 reps/set high speed lateral cross-over left (3 step explosions/rep))**
  - d) (3-4 sets, 2 reps/set shuffle left (4 steps and slides/rep))**
  - e) Total 6 to 8 explosive cross-overs, 6 to 8 four step shuffle & slide each direction**
- 4) 3 Point Start (40 Yard Dash Training): Page 22**
  - a) 5-7 starts right hand down**
  - b) 5-7 starts left hand down**
- 5) Back Pedal Drill: Page 24**
  - a) 2-3 sets back pedal to three separate targets (6 to 9 back pedals)**

## Jump Training (Configuration 1 of 4)

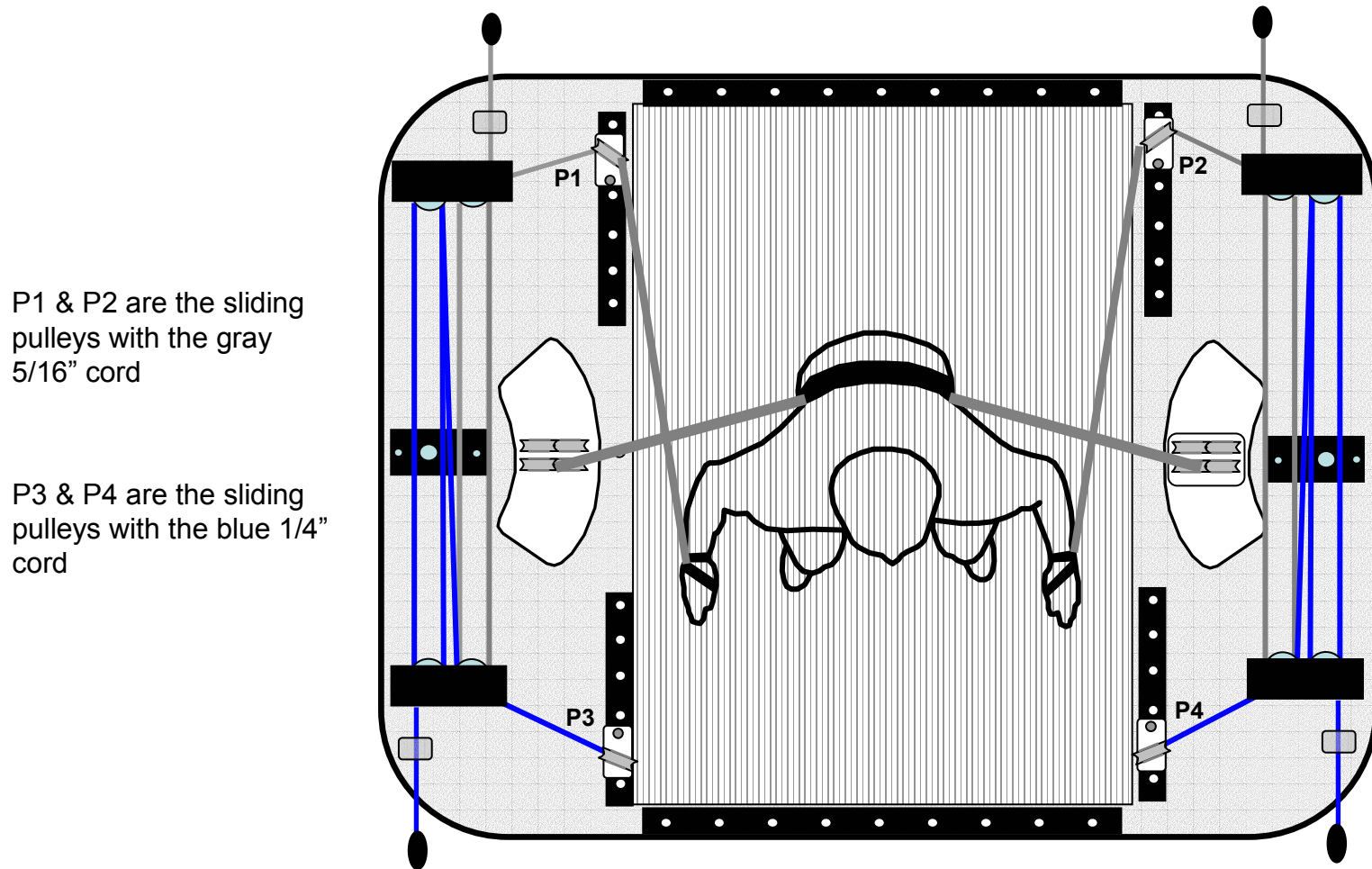
Configurations 1- 4 can be done at minimum resistance settings on all bands!



**Perform 2 Sets Vertical Jump (4 to 6 reps)**

**Both pivoting 5/16" cords attached to waist. When complete, go to Page 2 and complete both sets using the Configuration 2 diagram.**

## Jump Training (Configuration 2 of 4)

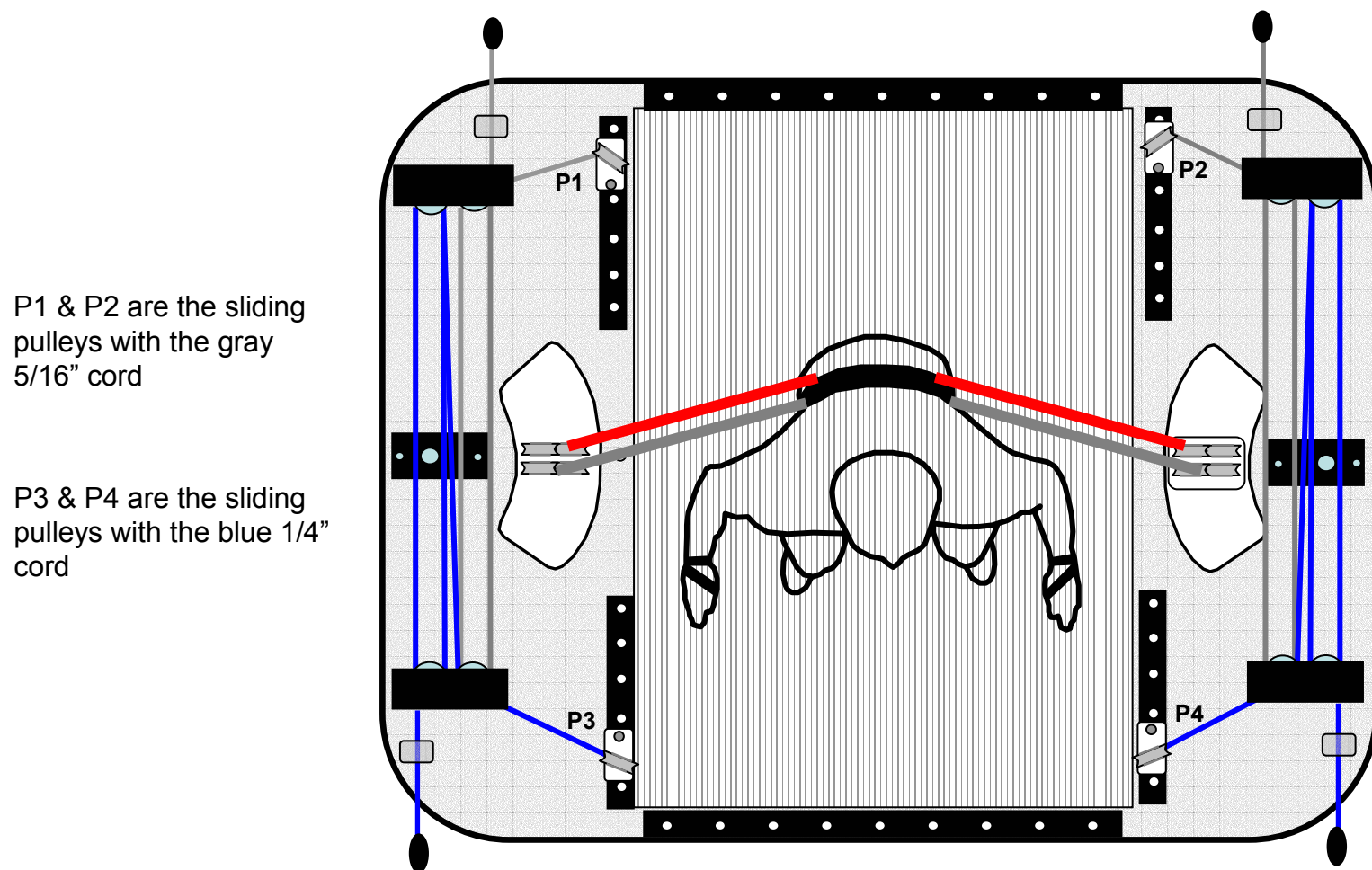


### **Perform 2 Sets Vertical Jump (4 to 6 reps)**

**Both pivoting 5/16" cords attached to waist with P1 and P2**

**5/16" hand cords attached to the hands. Younger athletes will reverse position and attach 1/4" cords from P3 and P4 to the hands. When complete, go to Page 3 and complete both sets using the Configuration 3 diagram.**

## Jump Training (Configuration 3 of 4)



P1 & P2 are the sliding pulleys with the gray 5/16" cord

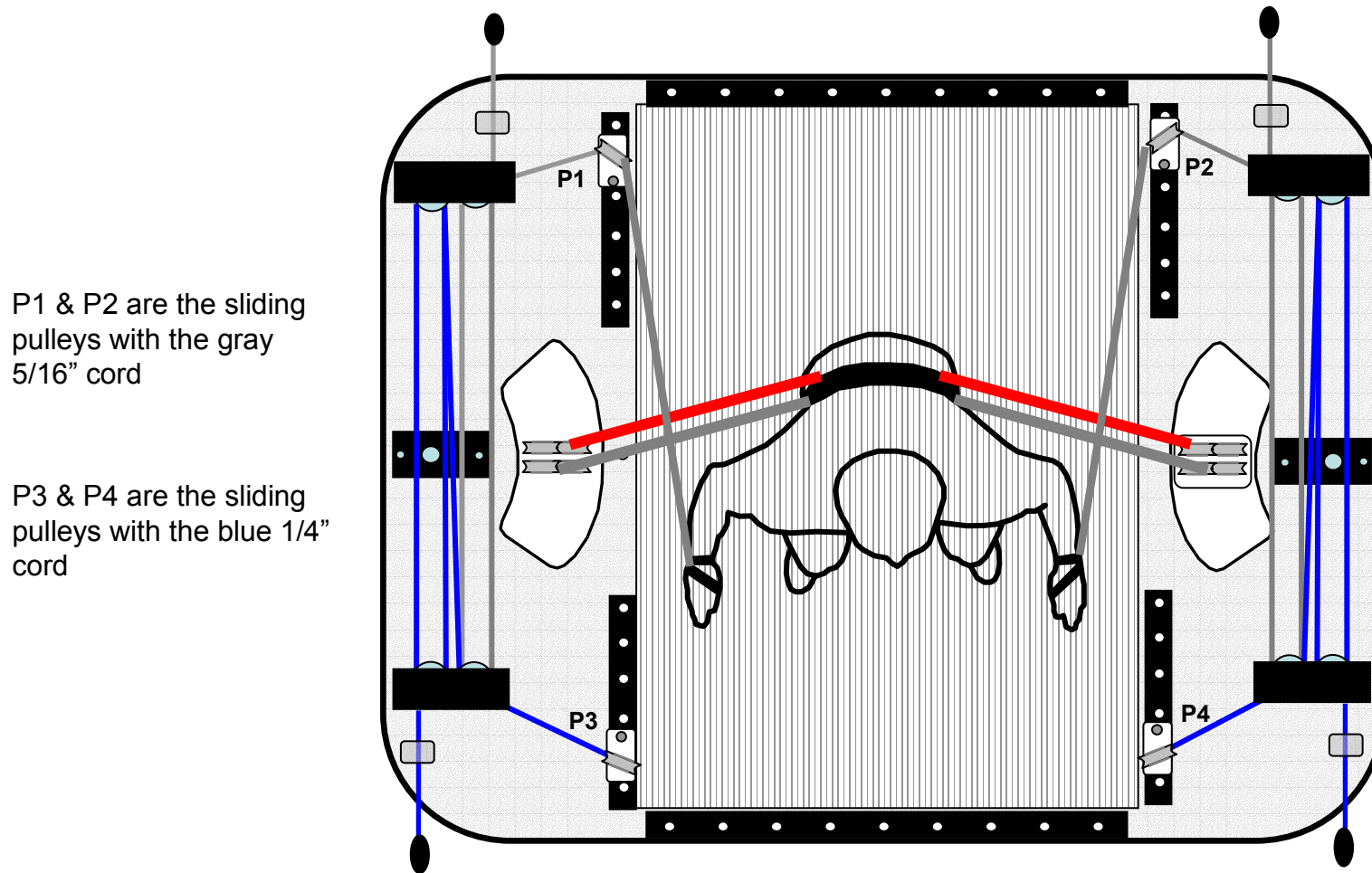
P3 & P4 are the sliding pulleys with the blue 1/4" cord

### **Perform 2 Sets Vertical Jump (4 to 6 reps)**

**Both pivoting 5/16" and both 3/8" cords attached to waist**

**(four cords attached to waist). Note younger athletes will only use the 3/8" or 5/16" bands for this configuration or a total of two cords attached to the waist as opposed to four as shown. When complete, go to Page 4 and complete both sets using the Configuration 4 diagram.**

## Jump Training (Configuration 4 of 4)



**Perform 2 Sets Vertical Jump (4 to 6 reps)**

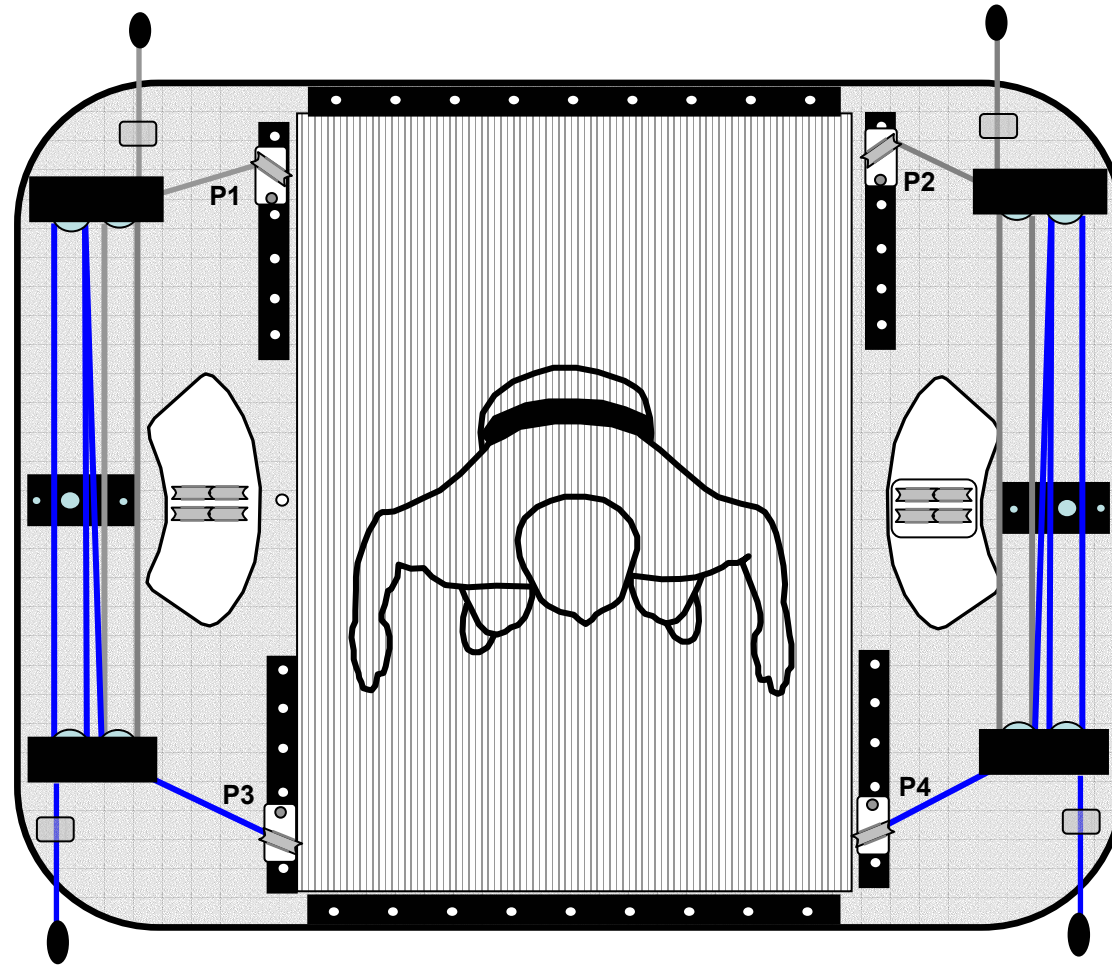
**Both pivoting 5/16" and both 3/8" cords attached to waist with P1 and P2 5/16" hand cords attached to the hands (total 6 cords attached). Younger athletes will reverse position and attach 1/4" cords from P3 and P4 to the hands and will likely not attach the 3/8" bands to their waist (total 4 cords attached). When complete, go to Page 5 and complete a single contrast set using the Configuration 5 diagram.**

# Jump Training (Final Contrast Set)

Last Set! Contrast Jumps with no resistance!

P1 & P2 are the sliding pulleys with the gray 1/4" cord

P3 & P4 are the sliding pulleys with the red 5/16" cord

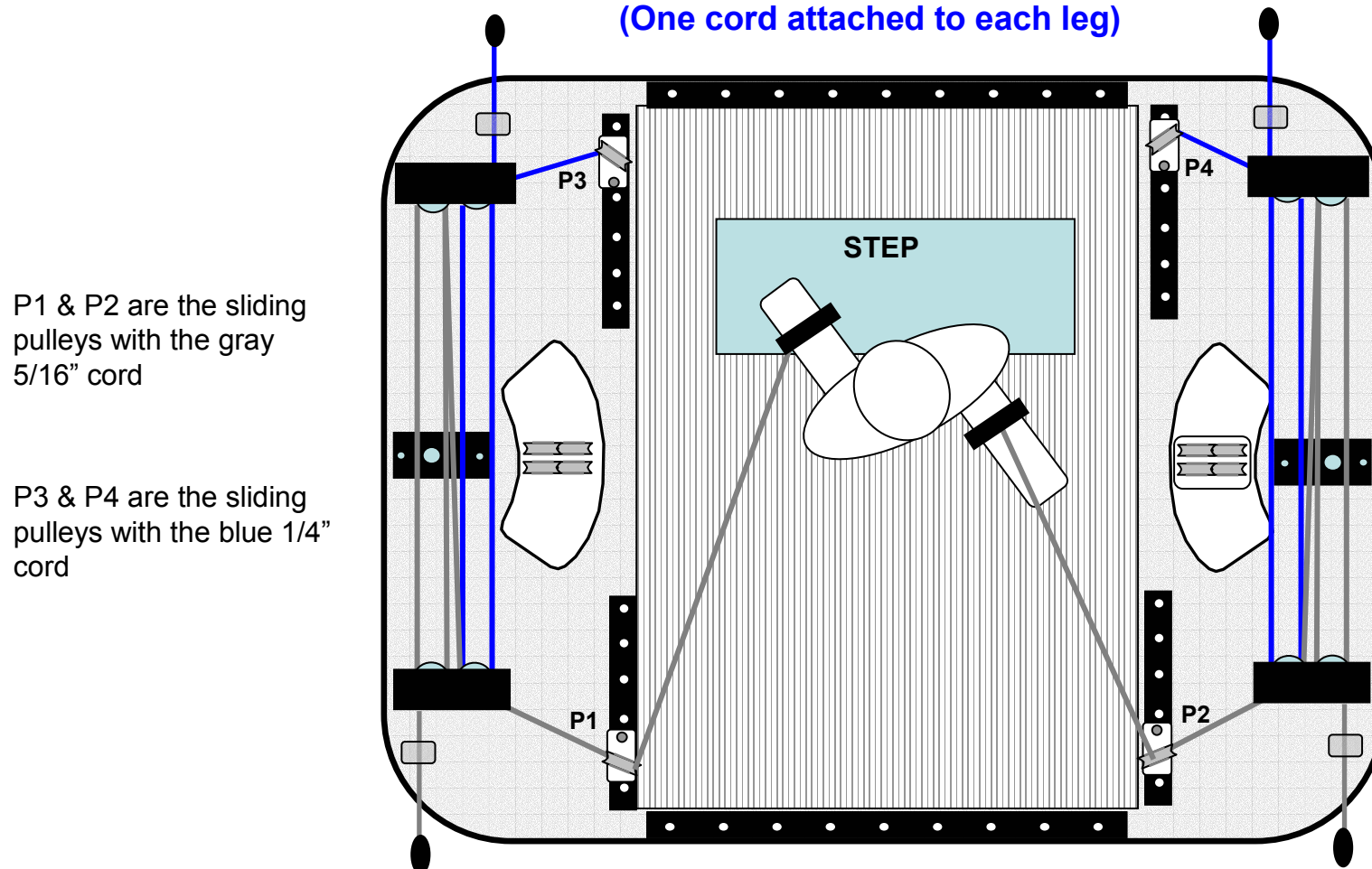


**Vertical Jump Contrast Set, 1 Set (2 to 4 reps)**  
**JUMP WITH NO RESISTANCE BANDS ATTACHED TO BODY!!!!!!**

## Exercise 2 Hip Flexor (Configuration 1 of 3)

Configurations 1- 3 can be done at minimum resistance settings on all bands!

(One cord attached to each leg)



P1 & P2 are the sliding pulleys with the gray 5/16" cord

P3 & P4 are the sliding pulleys with the blue 1/4" cord

### **Exercise 2 Hip Flexor Config. 1: 2 sets each leg (5 reps per set – total 10 reps/leg )**

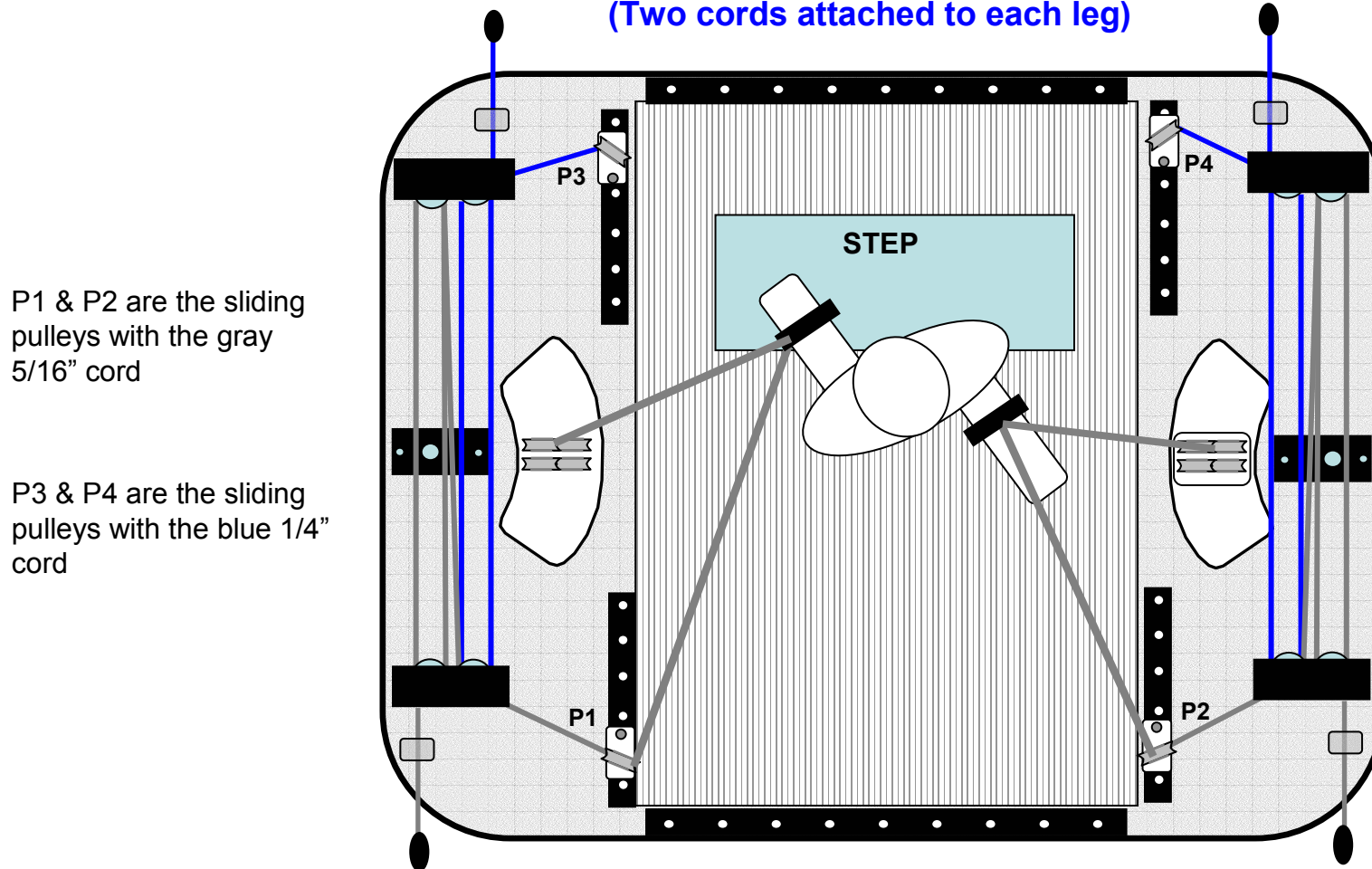
P1 & P2 – 5/16" bands connected behind the knee. Younger athletes reverse position and use 1/4" bands P3 & P4

- 1) Face 45 Deg. left. Put left Leg on step (see figure) then perform a high knee drive with right leg 5 times
- 2) Reverse position and face 45 Deg. right, Put right leg on step then perform a high knee drive with left leg 5 times
- 3) Repeat steps (1) and (2) again one more time and go to Page 7 if you are an advanced athlete. Otherwise repeat above sets two more times for a total of 6 sets and proceed to page 9.

## Exercise 2 Hip Flexor (Configuration 2 of 3 – Advanced Suggested 14 yrs +)

Configurations 1- 3 can be done at minimum resistance settings on all bands!

(Two cords attached to each leg)



P1 & P2 are the sliding pulleys with the gray 5/16" cord

P3 & P4 are the sliding pulleys with the blue 1/4" cord

### **Exercise 2 Hip Flexor Config. 2: 2 sets each leg (5 reps per set – total 10 reps/leg )**

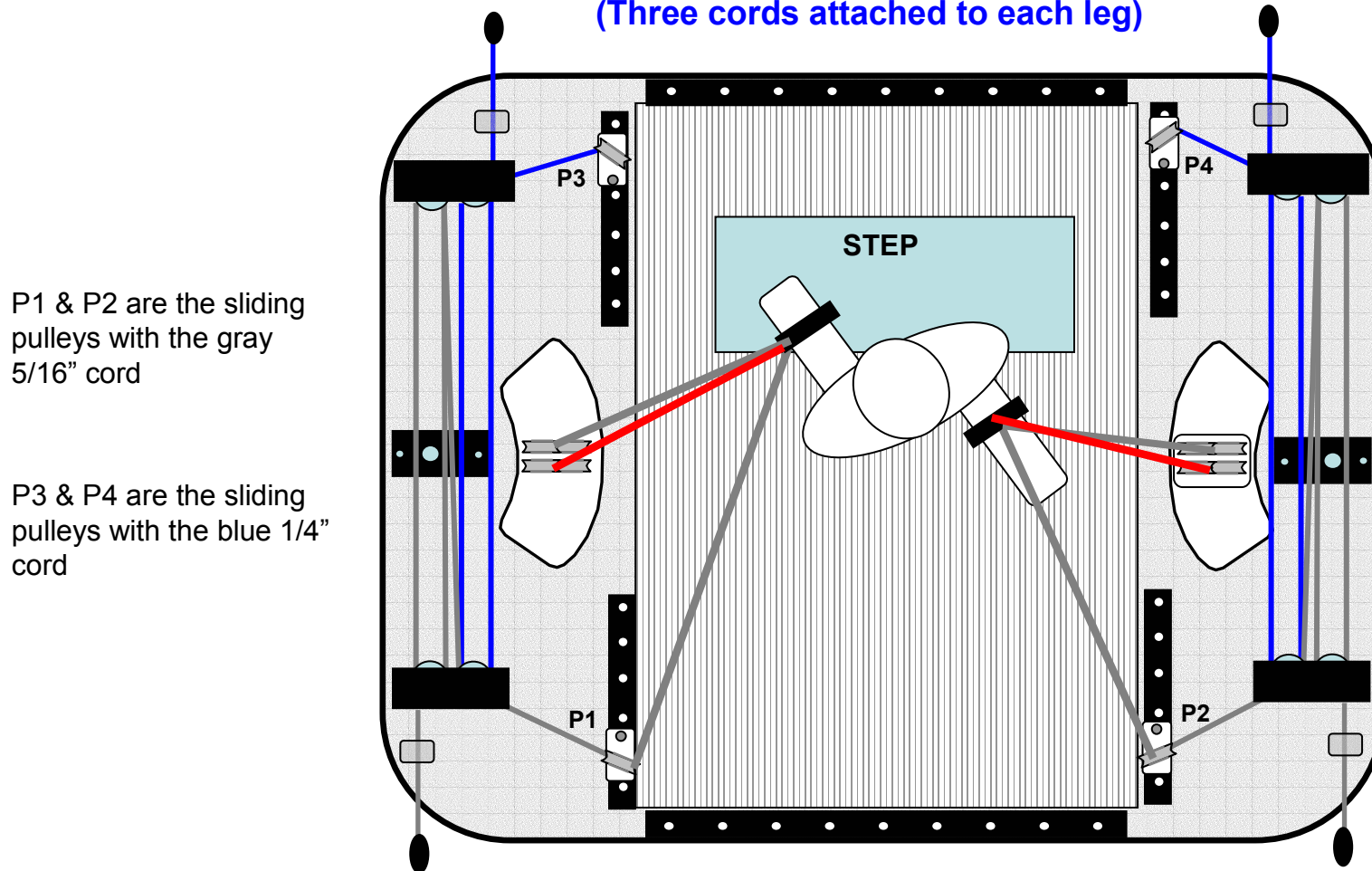
P1 & P2 – 5/16" gray bands connected behind the knee + Pivoting gray 5/16" bands connected behind leg

- 1) Face 45 Deg. left. Put left Leg on step (see figure) then perform a high knee drive with right leg 5 times
- 2) Reverse position and face 45 Deg. right, Put right leg on step then perform a high knee drive with left leg 5 times
- 3) Repeat steps (1) and (2) again one more time and then proceed to Page 8.

## Exercise 2 Hip Flexor (Configuration 3 of 3 – Very Advanced Suggested 18 yrs + )

Configurations 1- 3 can be done at minimum resistance settings on all bands!

(Three cords attached to each leg)



P1 & P2 are the sliding pulleys with the gray 5/16" cord

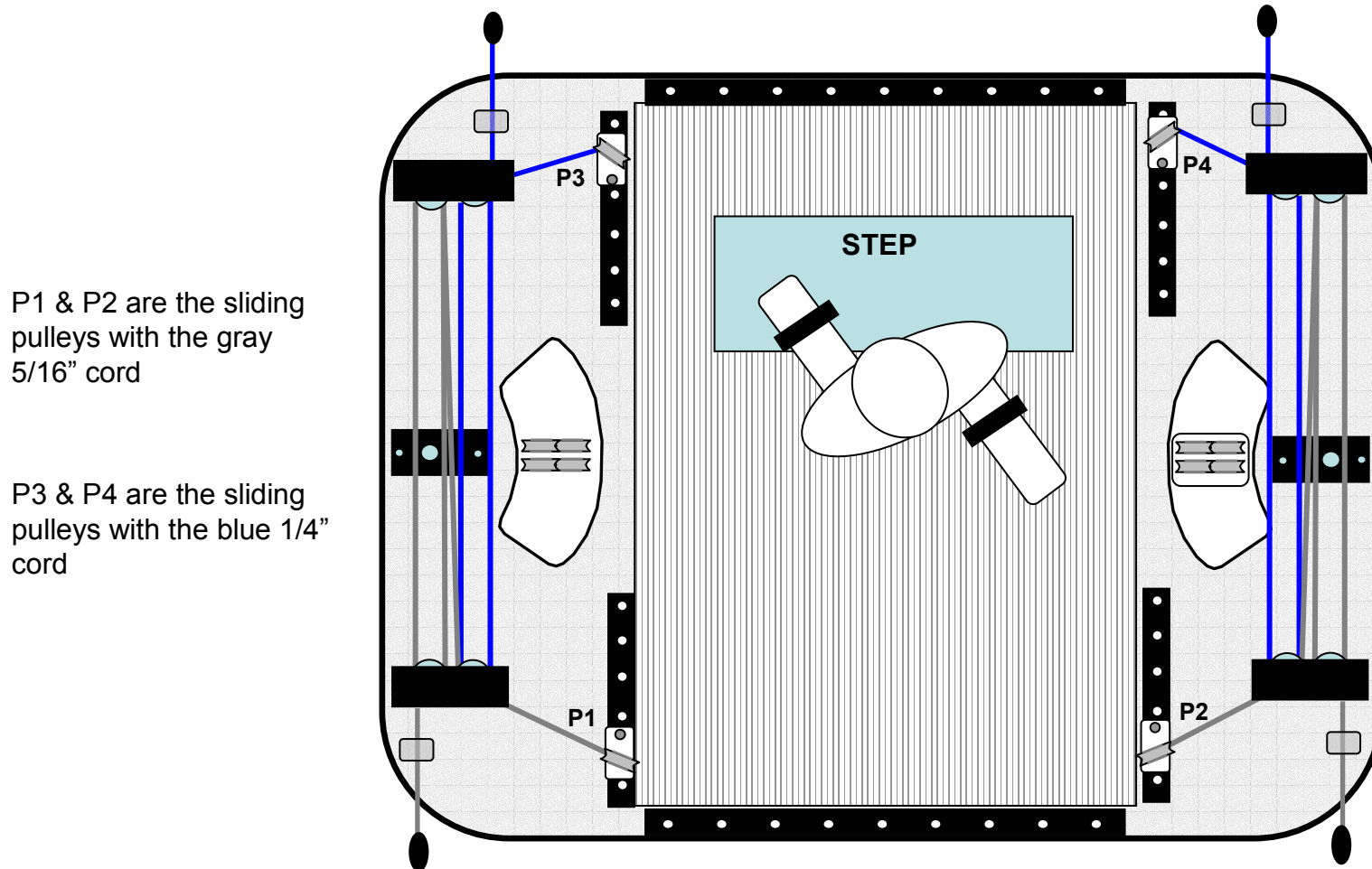
P3 & P4 are the sliding pulleys with the blue 1/4" cord

### **Exercise 2 Hip Flexor Config. 3: 2 sets each leg (5 reps per set – total 10 reps/leg)**

P1 & P2 – 5/16" gray bands + Pivoting gray 5/16" bands + 3/8" pivoting bands connected behind knee

- 1) Face 45 Deg. left. Put left Leg on step (see figure) then perform a high knee drive with right leg 5 times
- 2) Reverse position and face 45 Deg. right, Put right leg on step then perform a high knee drive with left leg 5 times
- 3) Repeat steps (1) and (2) again one more time and then proceed to page 9.

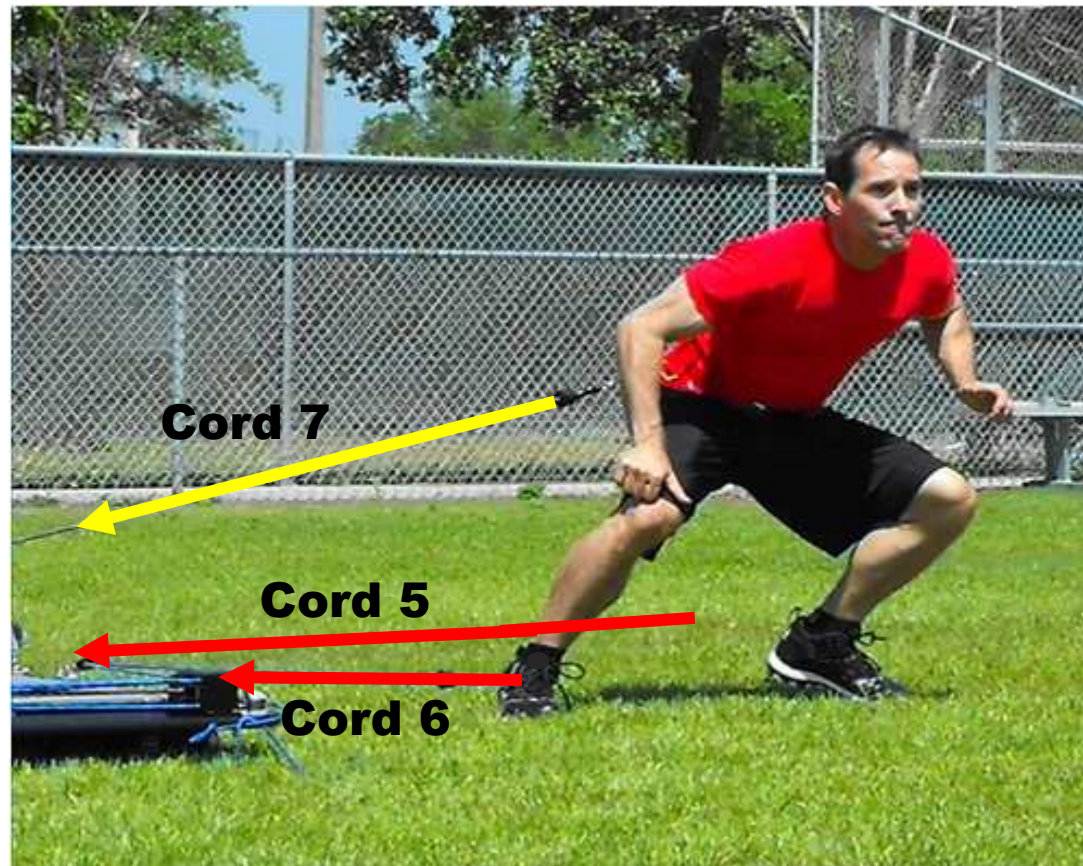
## Exercise 2 Hip Flexor (Final Contrast Set) (No cords attached to legs)



### Exercise 2 (Final Contrast Set – No Resistance)

- 1) Face 45 Deg. left. Put left Leg on step (see figure) then perform a high knee drive with right leg 3-5 times
- 2) Reverse position and face 45 Deg. right, Put right leg on step then perform a high knee drive with left leg 3-5 times

## Exercise 3 – Lateral Acceleration

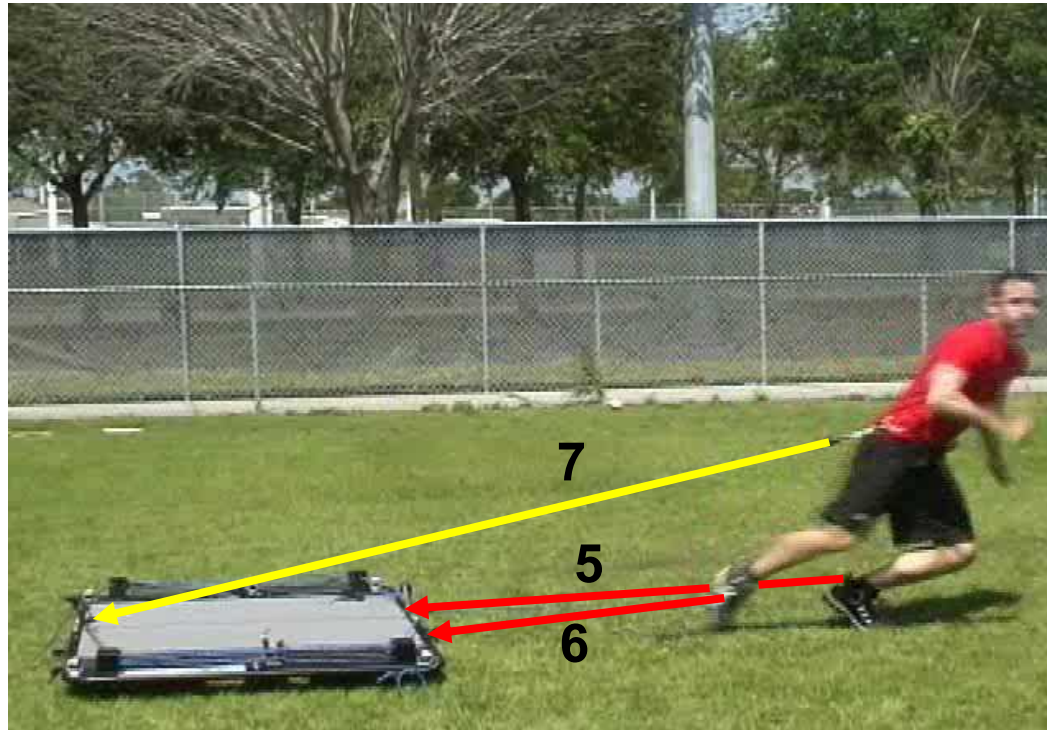


### Off-Platform Training (V8 Unit)

#### IMPORTANT NOTE:

For all off-platform explosive acceleration drills remember to place a cone about 20 feet away from the machine! Athletes should use the cone as a visual reference target for deceleration. After three steps they should begin decelerating and tap the cone as they come to a stop! You do not want athletes running 30 and 40 feet away from the VertiMax unit or resistance begins to increase exponentially and they will become destabilized which could result in injury!

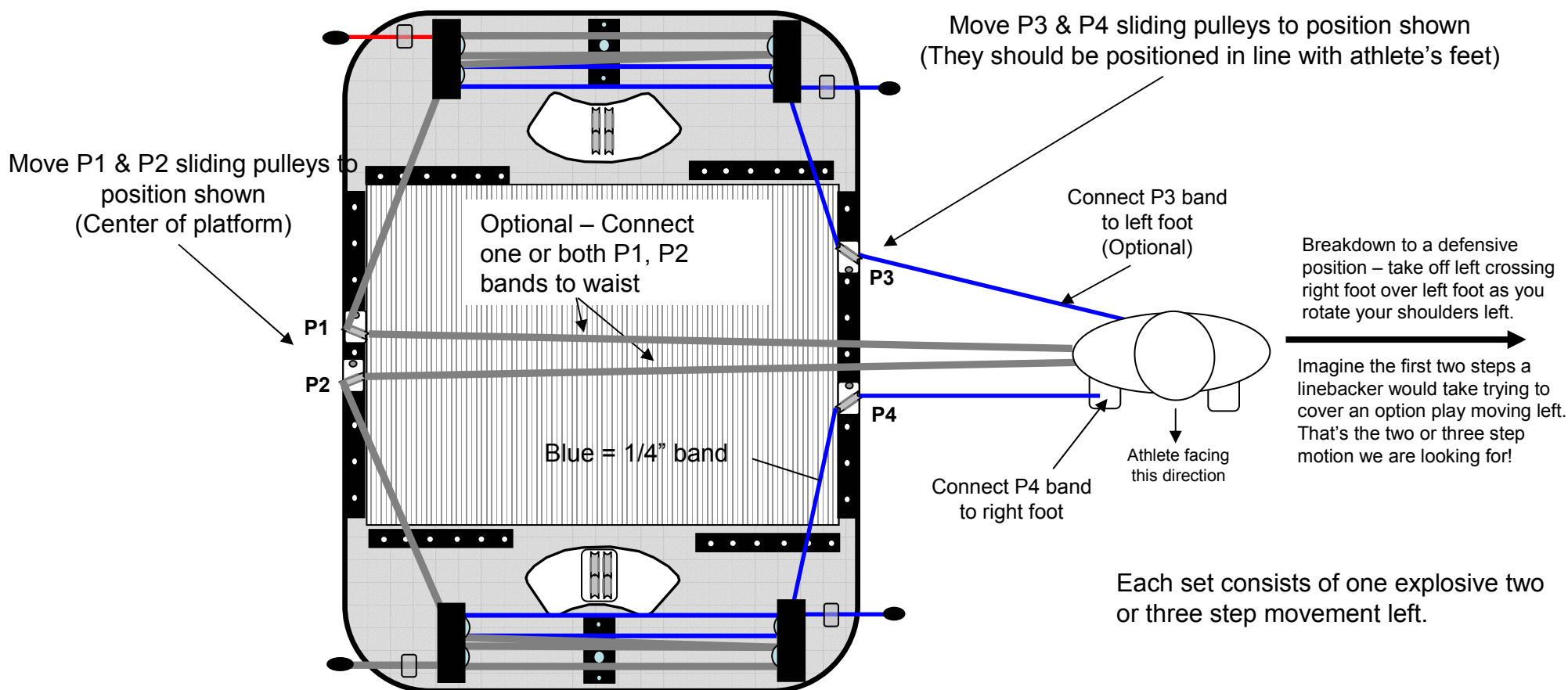
## Exercise 3 – Lateral Acceleration



**Off-Platform Training (V8 Unit)**

## Exercise 3 Lateral Acceleration (Configuration 1 – Movement Left)

Configurations 1-2 can be done at minimum resistance settings on all bands!



Set deceleration cone/marker 8 to 10 paces from unit

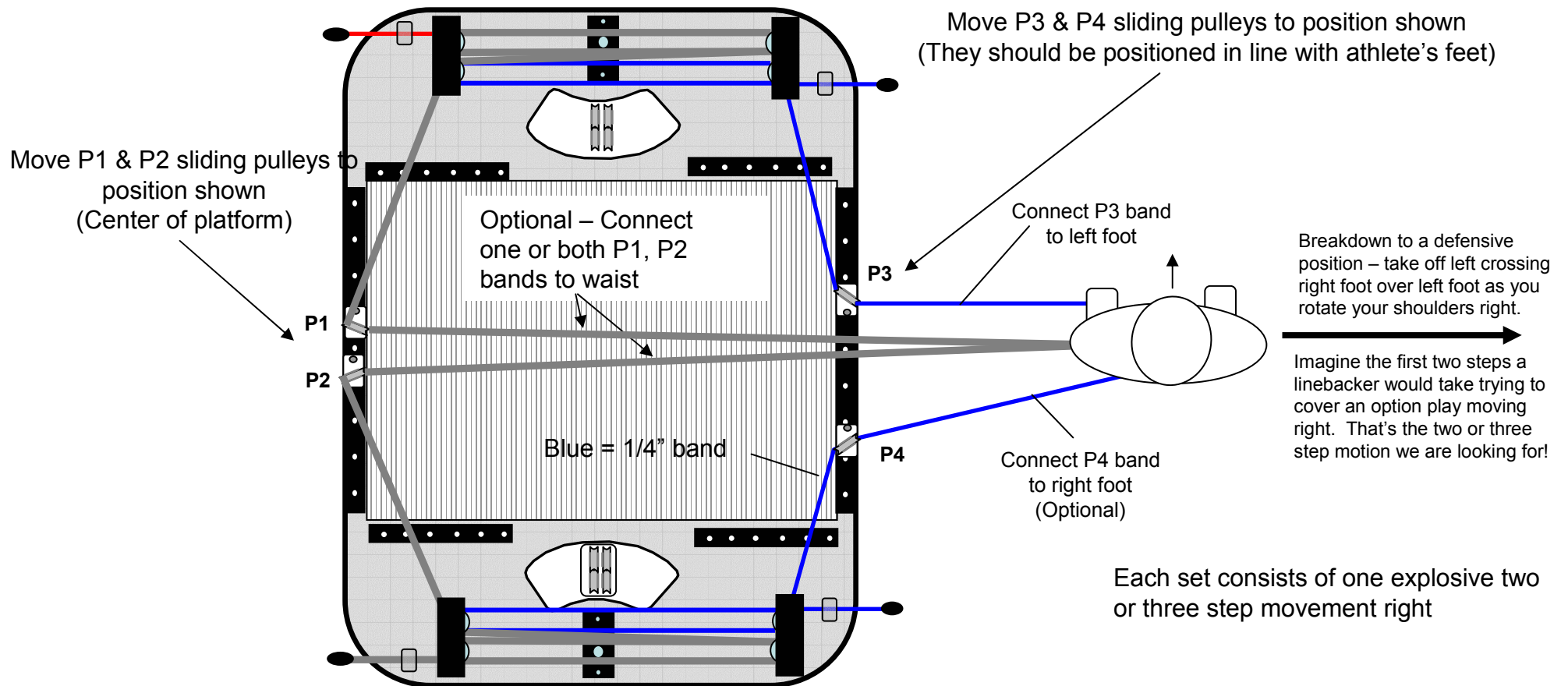
One set = 2 Lateral Crossover movements + 2 Shuffle movements (Left)

Perform 3 to 4 sets

Optional Drills (ladder, catch bouncing ball, hit tennis ball)

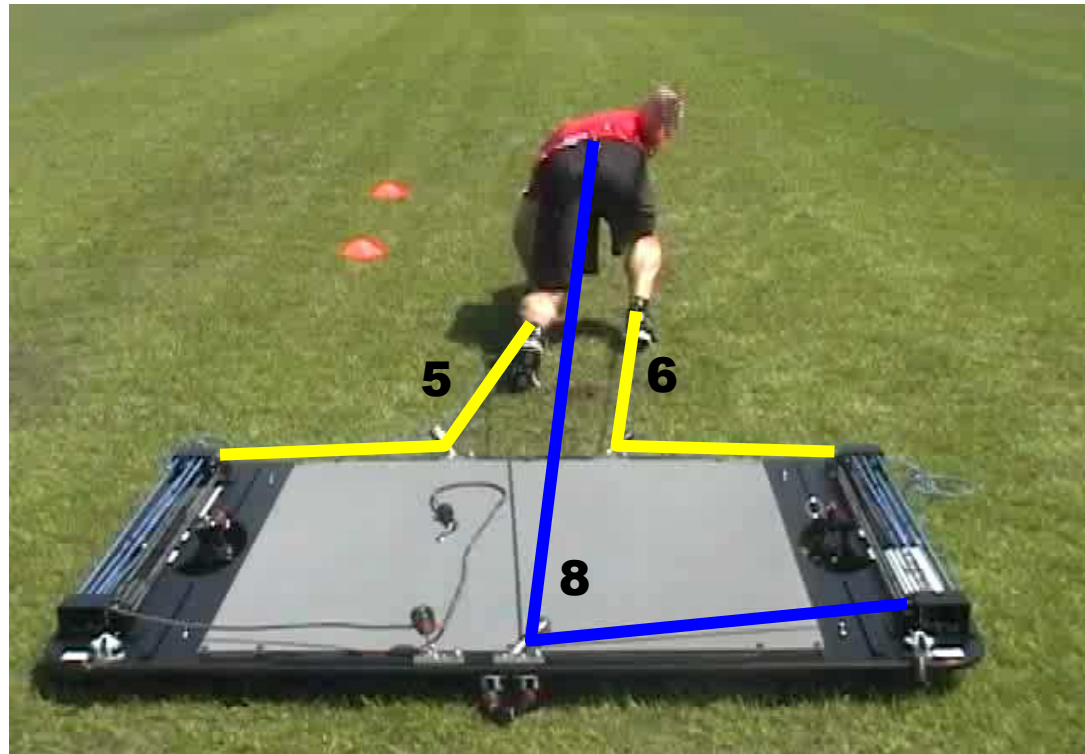
## Exercise 3 Lateral Acceleration (Configuration 2 – Movement Right)

Configurations 3- 4 can be done at minimum resistance settings on all bands!



- Set deceleration cone/marker 8 to 10 paces from unit
- One set = 2 Lateral Crossover movements + 2 Shuffle movements (Right)
- Perform 3 to 4 sets

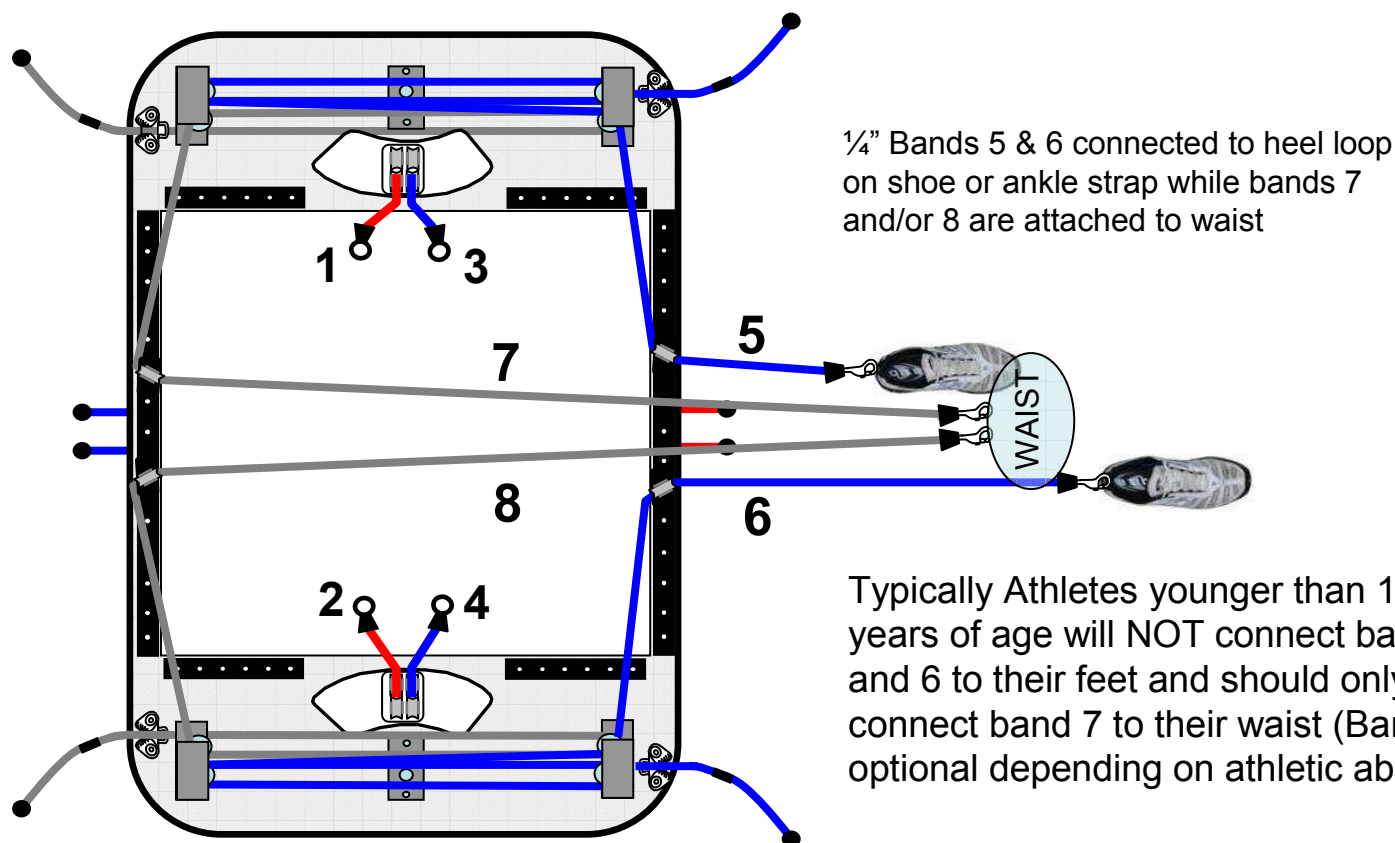
## Exercise 4 – 3 Point Start



**Drive for three steps and then reach and touch a cone (target in front of you) on the fourth step!  
Remember to alternate stance!!!!!!**

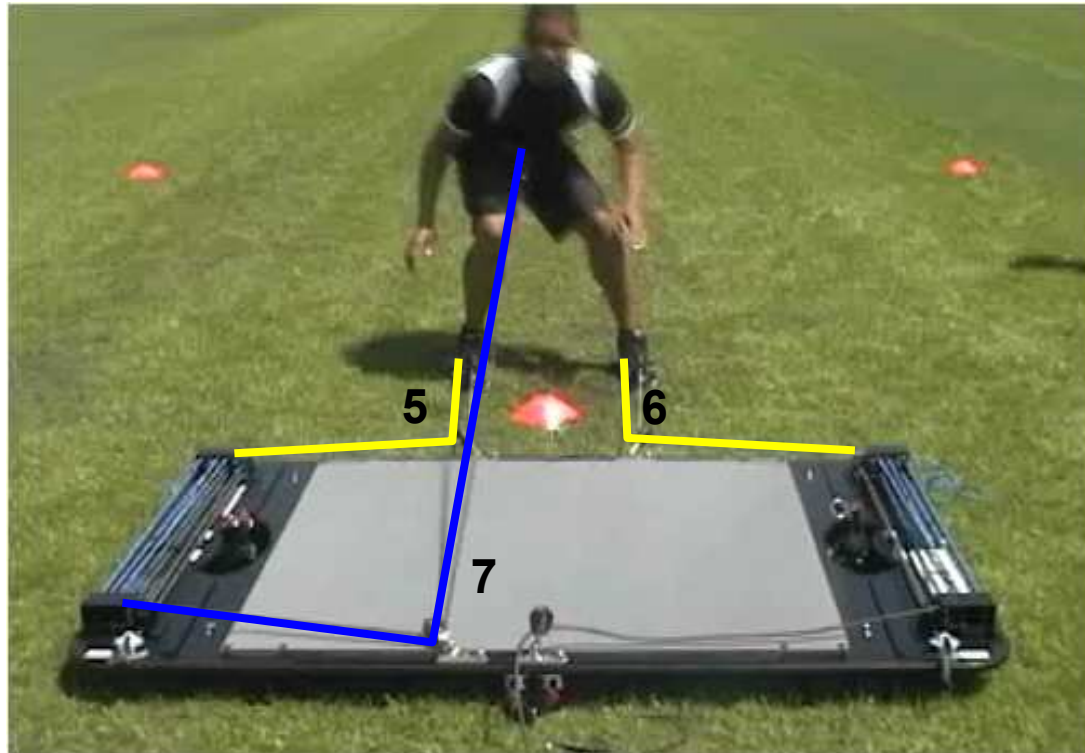
## Exercise 4 – 3 Point Start (Single Configuration)

It is only necessary to attach one band to the waist (either 7 or 8). Attaching both bands to the waist is for very advanced athletes only!



- Set deceleration cone/marker 8 to 10 paces from unit
- One set = one take-off left hand down + one take-off right hand down
- Perform 4-5 sets
- Optional Drills (dribble to three cones, soccer kick, ladder drill, connect cords 5 & 6 to hands – 3 or 4 point football explosion off line)

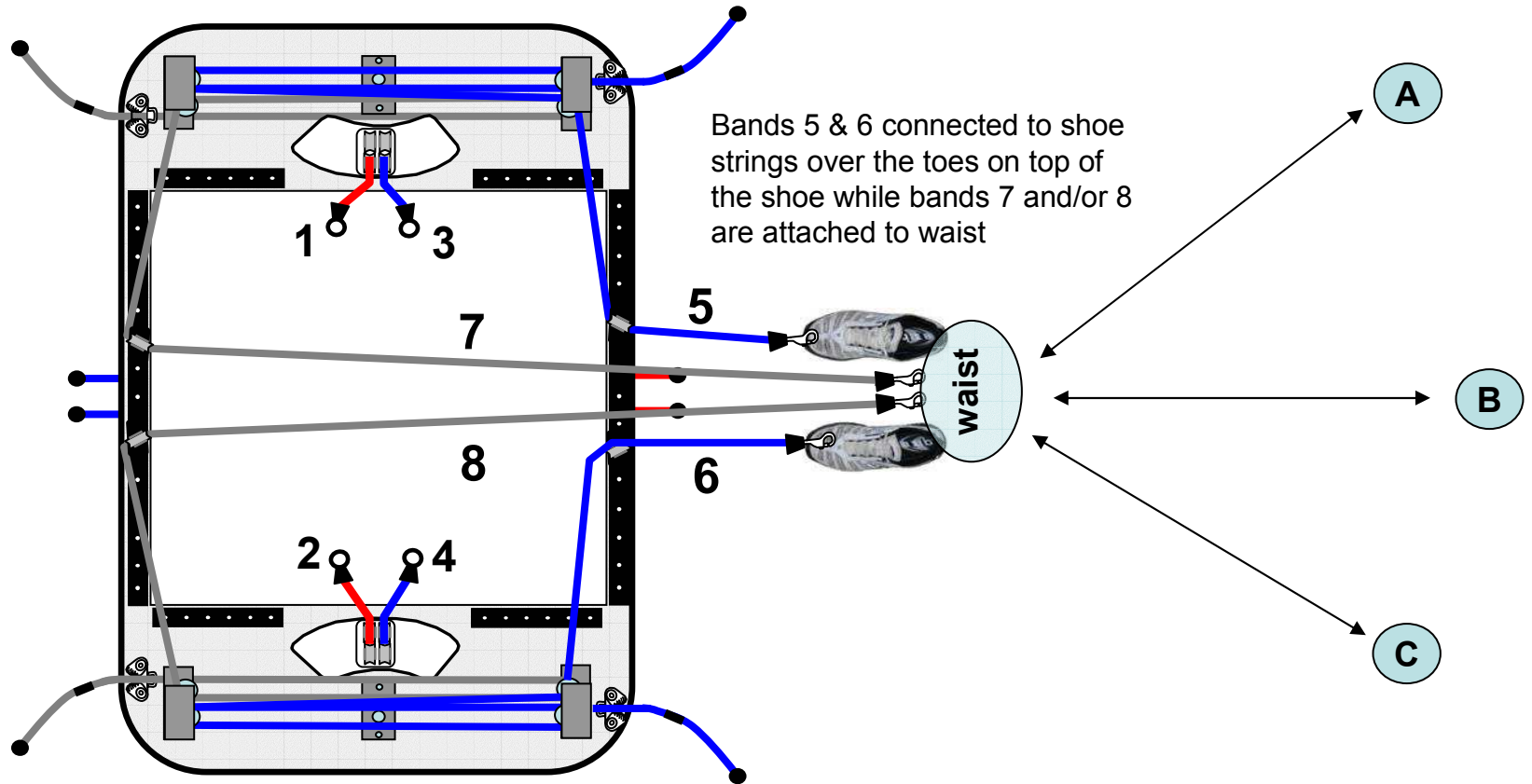
## Optional Exercise 5 – Back Pedal Drill



# Optional Exercise 5 – Back Pedal Drill

(Athletes under 14 only connect band 7 or 8)

It is only necessary to attach one band to the waist (either 7 or 8). Attaching both bands to the waist is for very advanced athletes only!



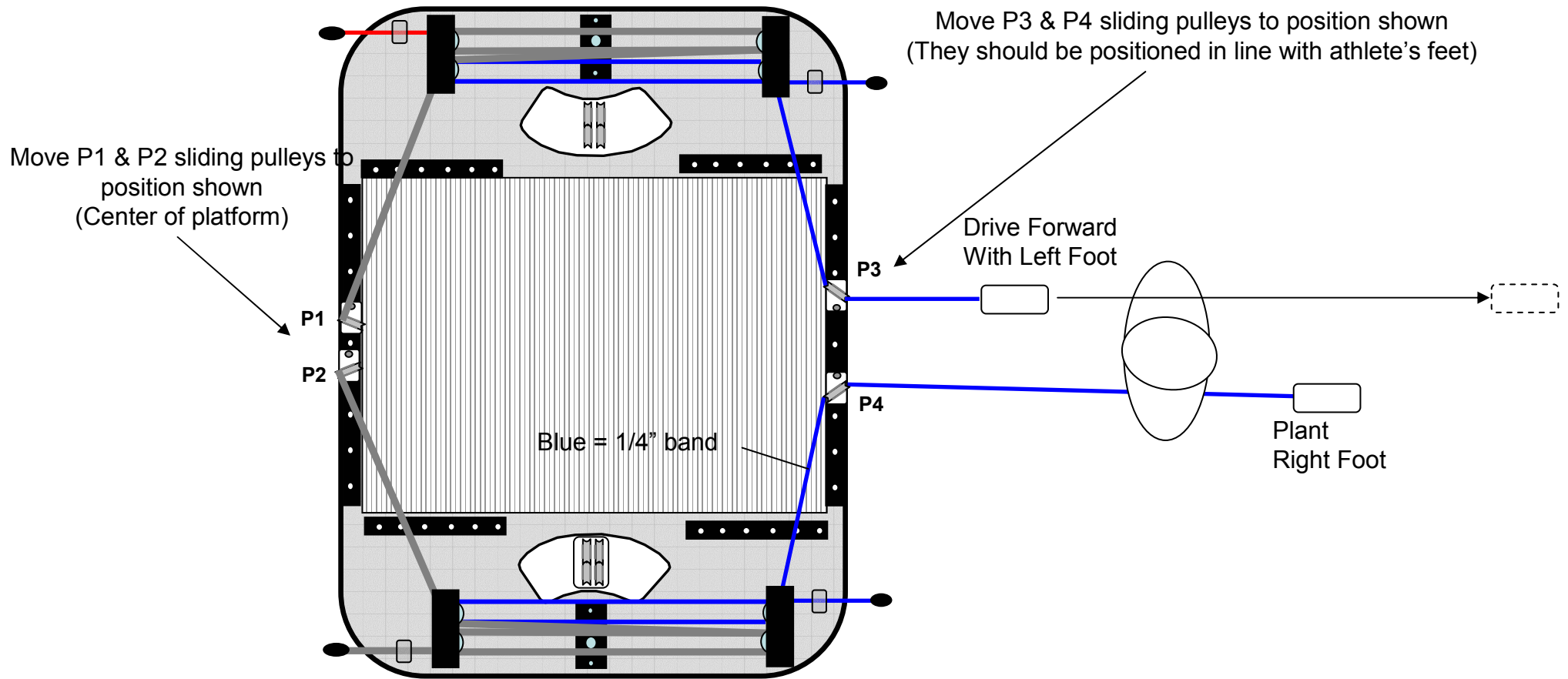
- Set deceleration cones/markers 8 to 10 paces from unit at 10, 12 & 2 O'clock
- One set = back pedal to cone A, B & C consecutively returning to unit each time
- Perform 2-3 sets

## ***Additional Sport Specific Drills***

- Off-Platform Hip Flexor: Page 26-28
- Quarterback Drop Back: Page 29-30
- Catcher Pop & Throw: Page 31-32
- Shot-Put: Page 33-34
- Baseball Swing Training: Page 35-36
- Slide Board (Skating): Page 37-38

# Hip Flexor Alternate Off Platform (Configuration 1)

This exercise can be used in-place of Hip Flexor training shown on Pages 6-9

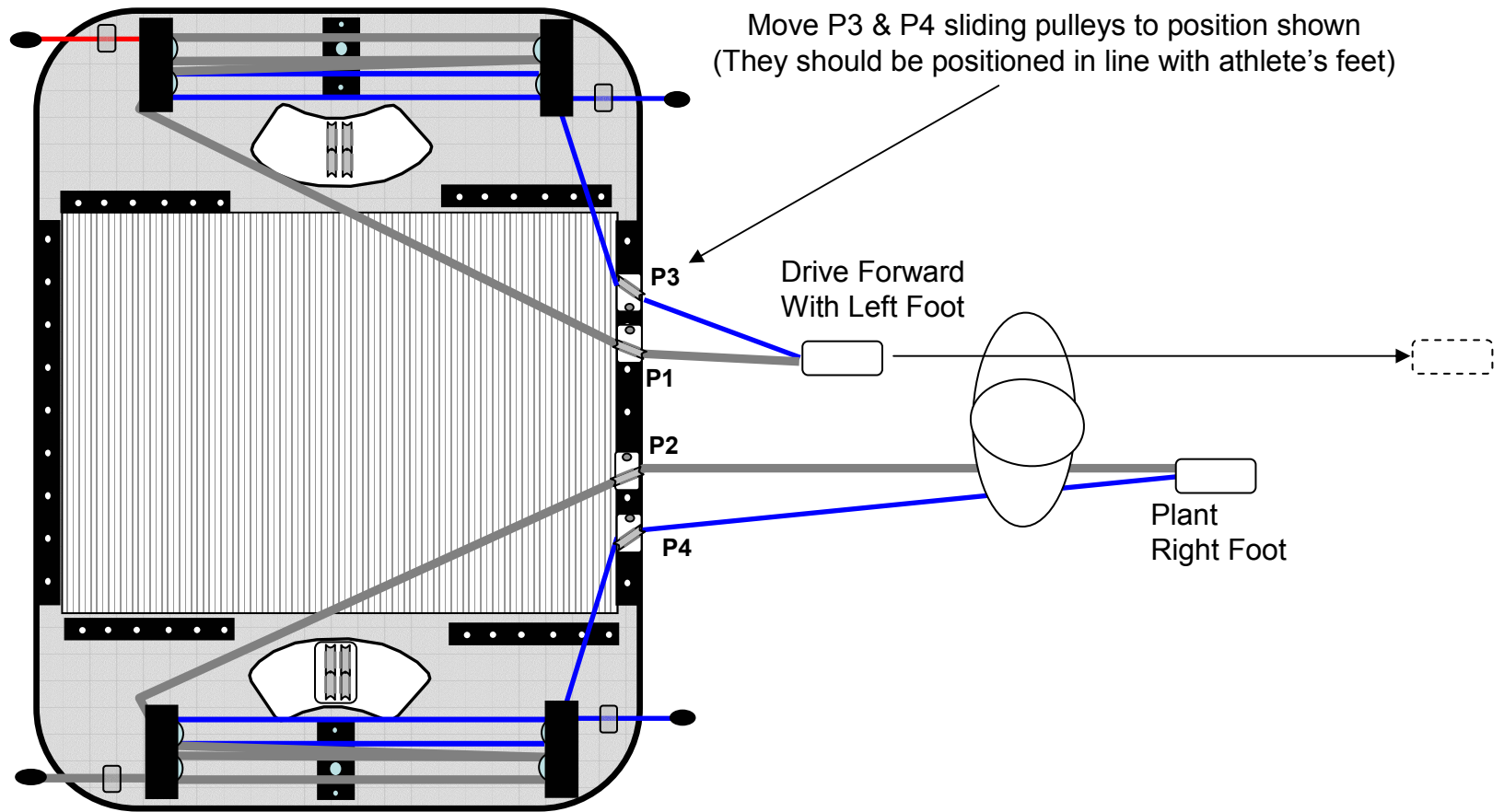


**Alternate Leg Hip Flexor  
( 3 sets of 5-10 reps each leg)  
When complete proceed to Page 15**



## Hip Flexor Alternate Off Platform (Configuration 3)

This exercise can be used in-place of Hip Flexor training shown on Pages 6-9 or pages 10-11

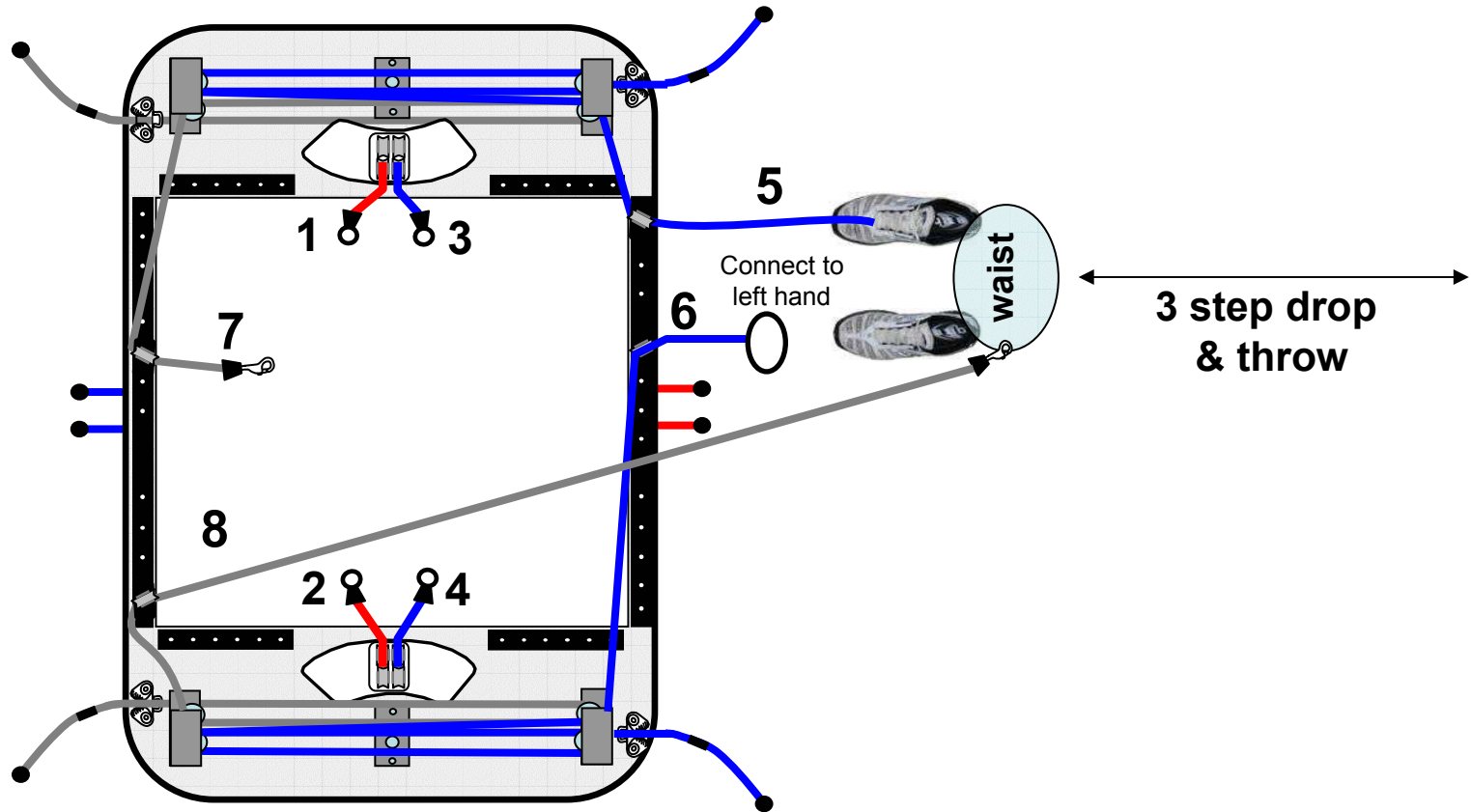


**Alternate Leg Hip Flexor (For Advanced Athlete Only!!!!)**

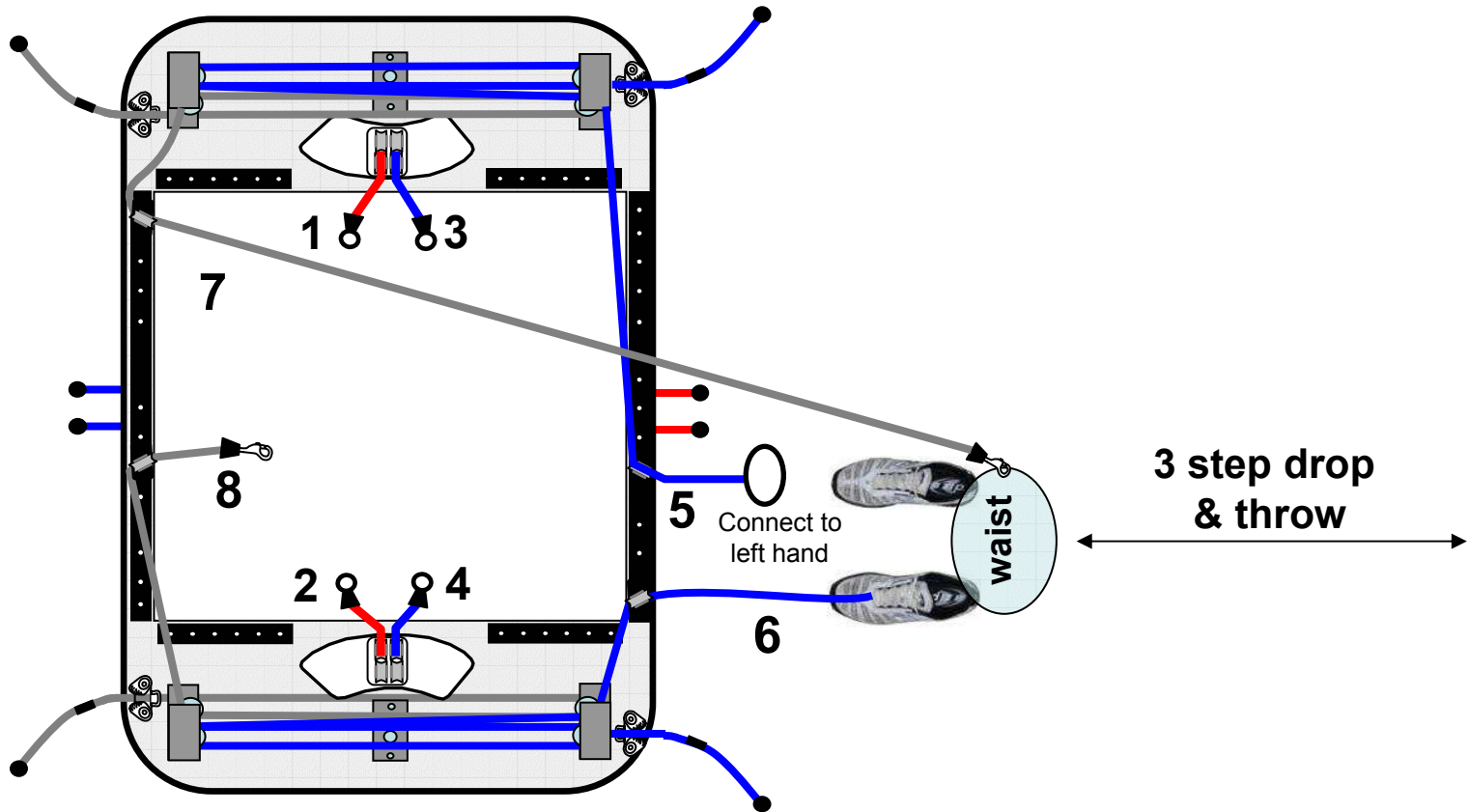
**( 3 sets of 5-10 reps each leg)**

**Proceed to Page 15**

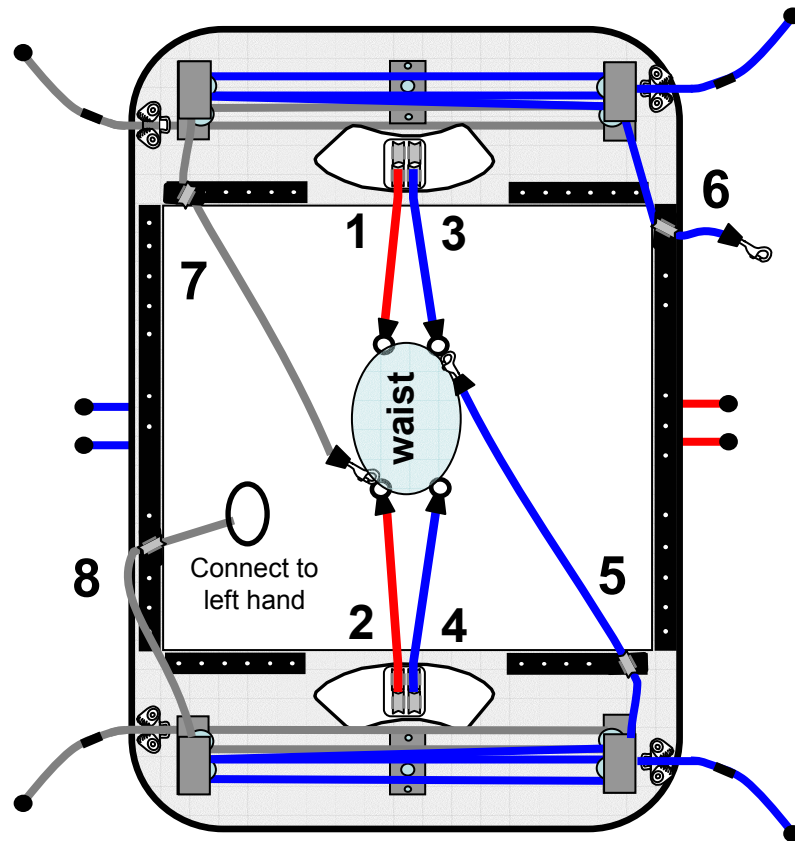
# Quarterback Drop Back Left Hand



# Quarterback Drop Back Right Hand

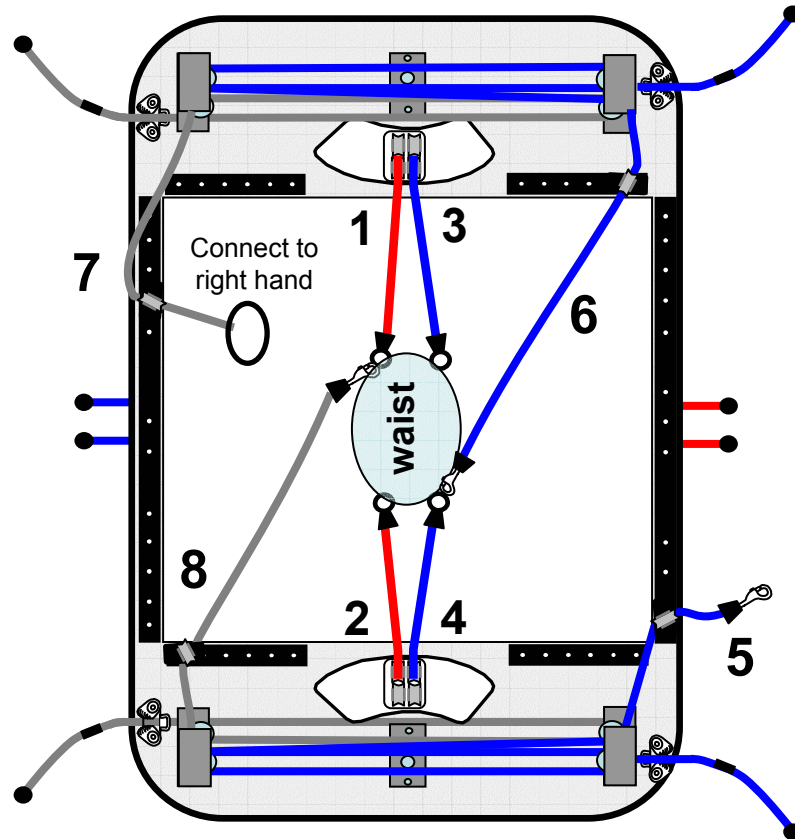


# Left Handed Catcher Pop & Throw



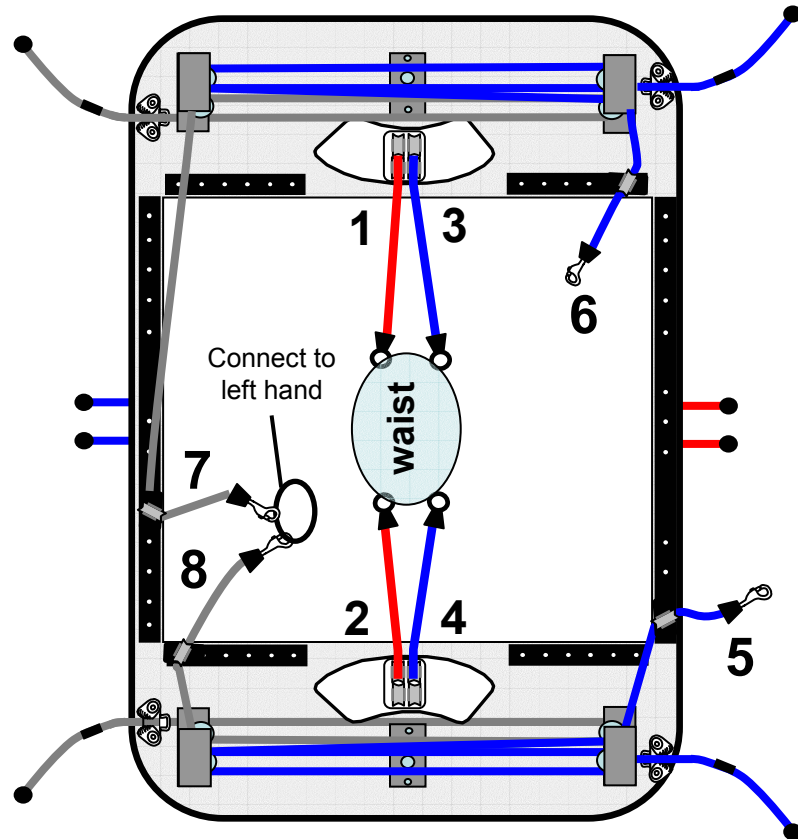
Connection of cords 3, 4 and 5, 7 are optional depending on athletic level.

# Right Handed Catcher Pop & Throw



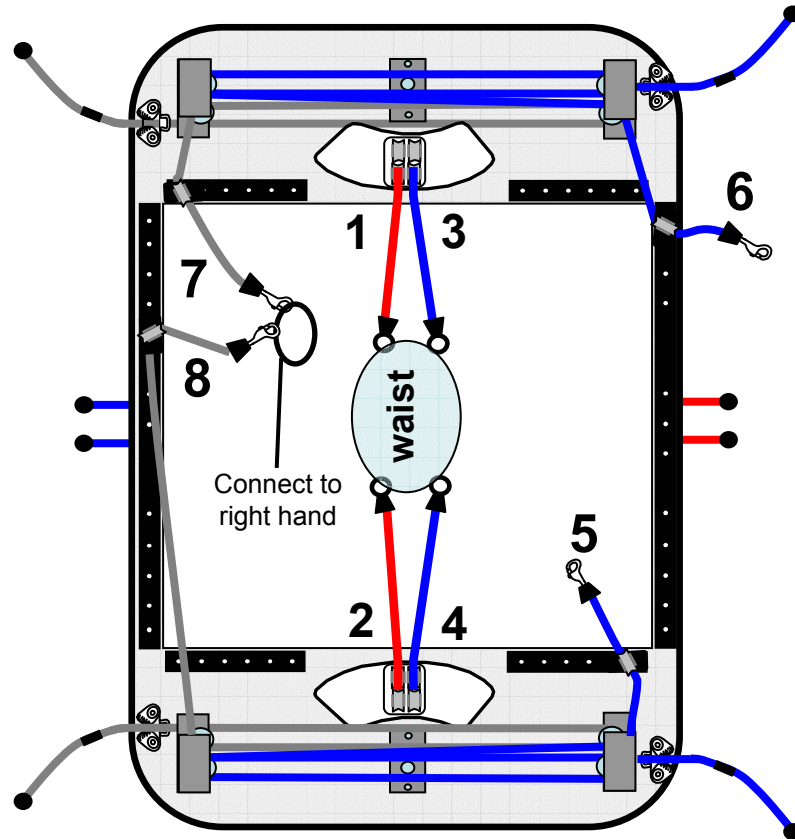
Connection of cords 3, 4 and 6, 8 are optional depending on athletic level.

# Left Handed Shot-Put



Connection of cords 3, 4 and 7 are optional depending on athletic level.

# Right Handed Shot-Put



Connection of cords 3, 4 and 8 are optional depending on athletic level.

# Right Handed Swing Training Configuration

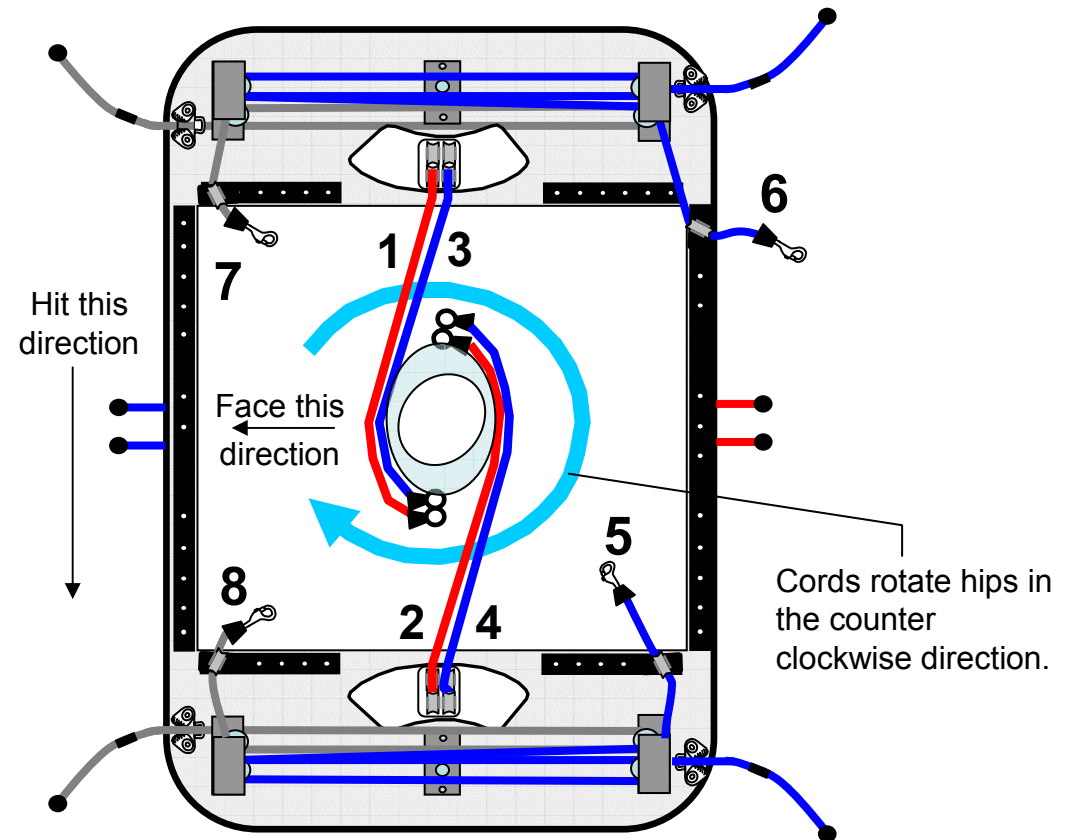
## (Baseball, Softball, Tennis, Golf)

Athlete can connect cords in the following ways:

1. Cord #1 passes in front of athlete and attaches on left hip and Cord #2 passes behind athlete and attaches to right hip or
2. Cord #3 passes in front of athlete and attaches on left hip and Cord #4 passes behind athlete and attaches to right hip or
3. Cords #1 and #3 pass in front of athlete and attach to left hip and cords #2 and #4 pass behind athlete and attach to right hip.

This configuration generates clockwise torque winding hips in the clockwise direction. The right handed athlete must work in the counter clockwise direction against the clockwise torque when swinging.

Important Notes: The athlete can actually conduct batting practice in this configuration or even hit a golf ball or tennis ball in this configuration.



# Left Handed Swing Training Configuration

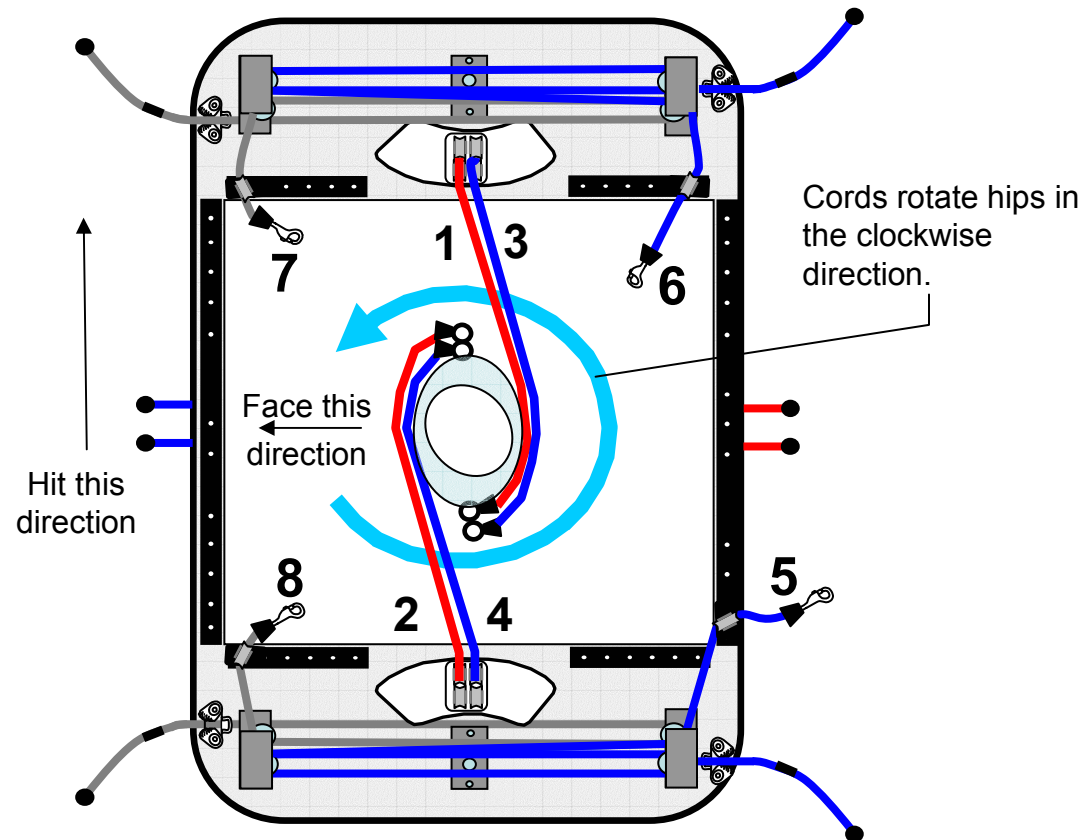
(Baseball, Softball, Tennis, Golf)

Athlete can connect cords in the following ways:

1. Cord #1 passes behind athlete and attaches on left hip and Cord #2 passes in front of athlete and attaches to right hip or
2. Cord #3 passes behind athlete and attaches on left hip and Cord #4 passes in front of athlete and attaches to right hip or
3. Cords #1 and #3 pass behind athlete and attach to left hip and cords #2 and #4 pass in front of athlete and attach to right hip.

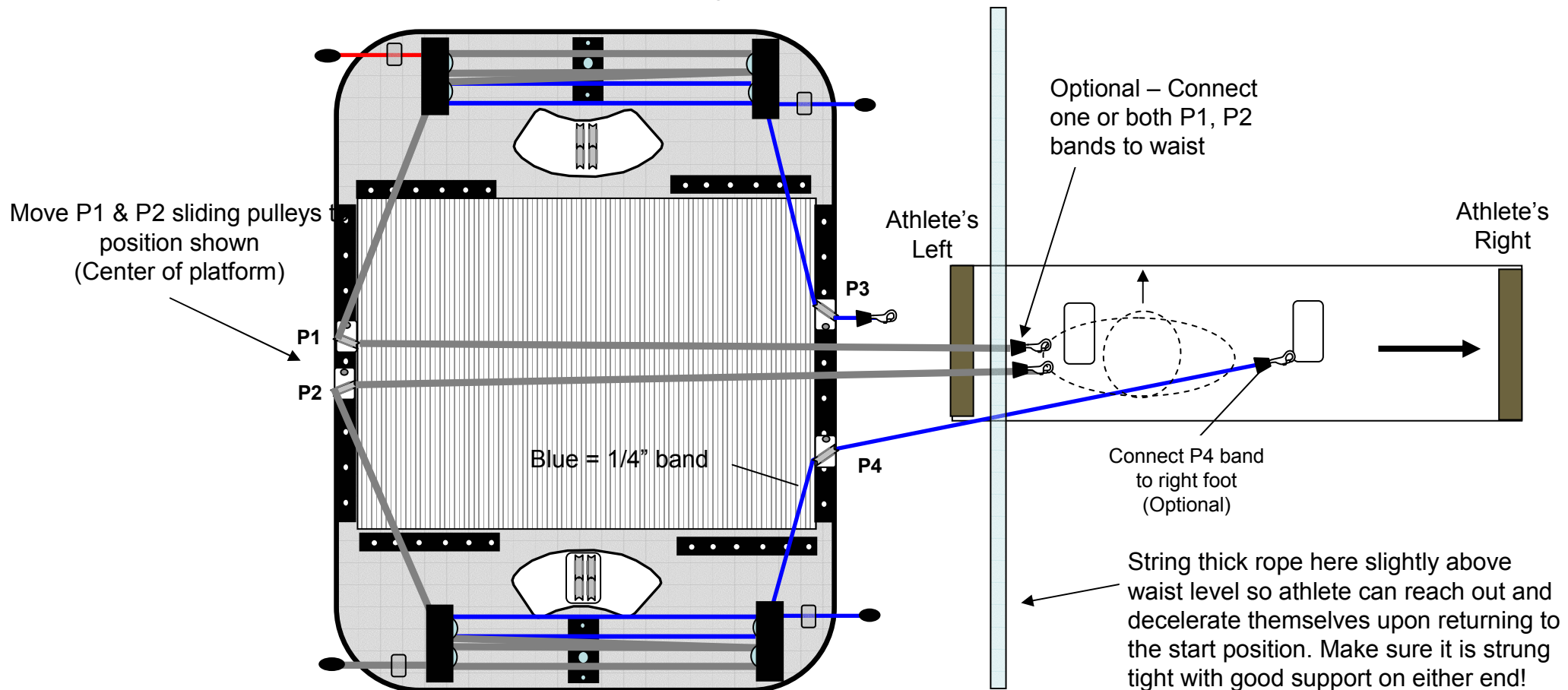
This configuration generates counter clockwise torque winding hips in the counter clockwise direction. The left handed athlete must work in the clockwise direction against the counter clockwise torque when swinging.

Important Notes: The athlete can actually conduct batting practice in this configuration or even hit a golf ball or tennis ball in this configuration.



# Hockey Slide Board Training Innovation

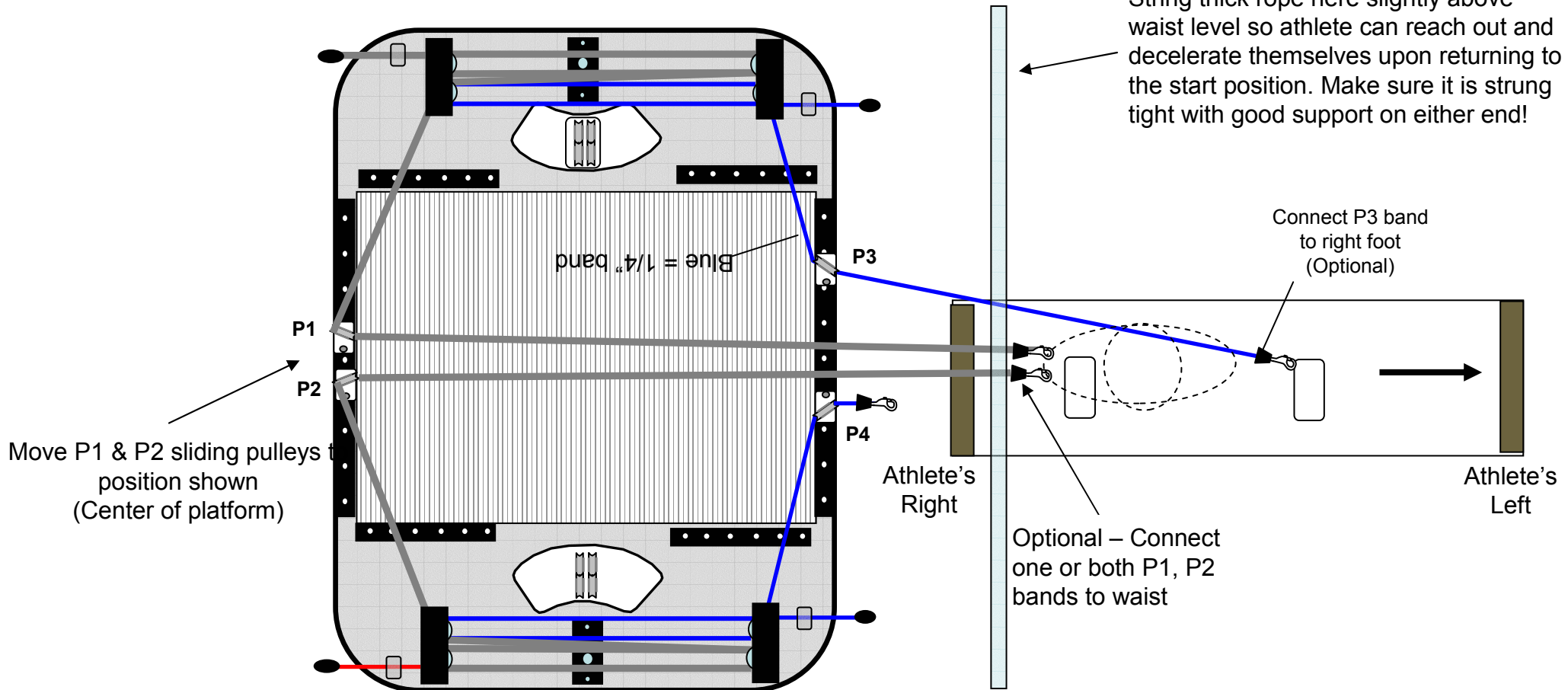
Right Thrust



Each set consists of 6 to 10 explosive thrusting movements to the right. Upon return to the left side of the slide board, be prepared to deal with the added velocity & subsequent deceleration upon contact with the left push-off barrier. Also remember that your velocity will be aided by the elastic bands when you push-off the right barrier so you will have to back off on the amount of drive force you use when returning to the left. You will have ample opportunity to work the right drive phase when you reverse this configuration as shown in the next slide.

# Hockey Slide Board Training Innovation

Left Thrust



Each set consists of 6 to 10 explosive thrusting movements to the left. Upon return to the right side of the slide board, be prepared to deal with the added velocity & subsequent deceleration upon contact with the right push-off barrier. Also remember that your velocity will be aided by the elastic bands when you push-off the left barrier so you will have to back off on the amount of drive force you use when returning to the right. You will have ample opportunity to work the left drive phase when you reverse this configuration as shown in the previous slide.