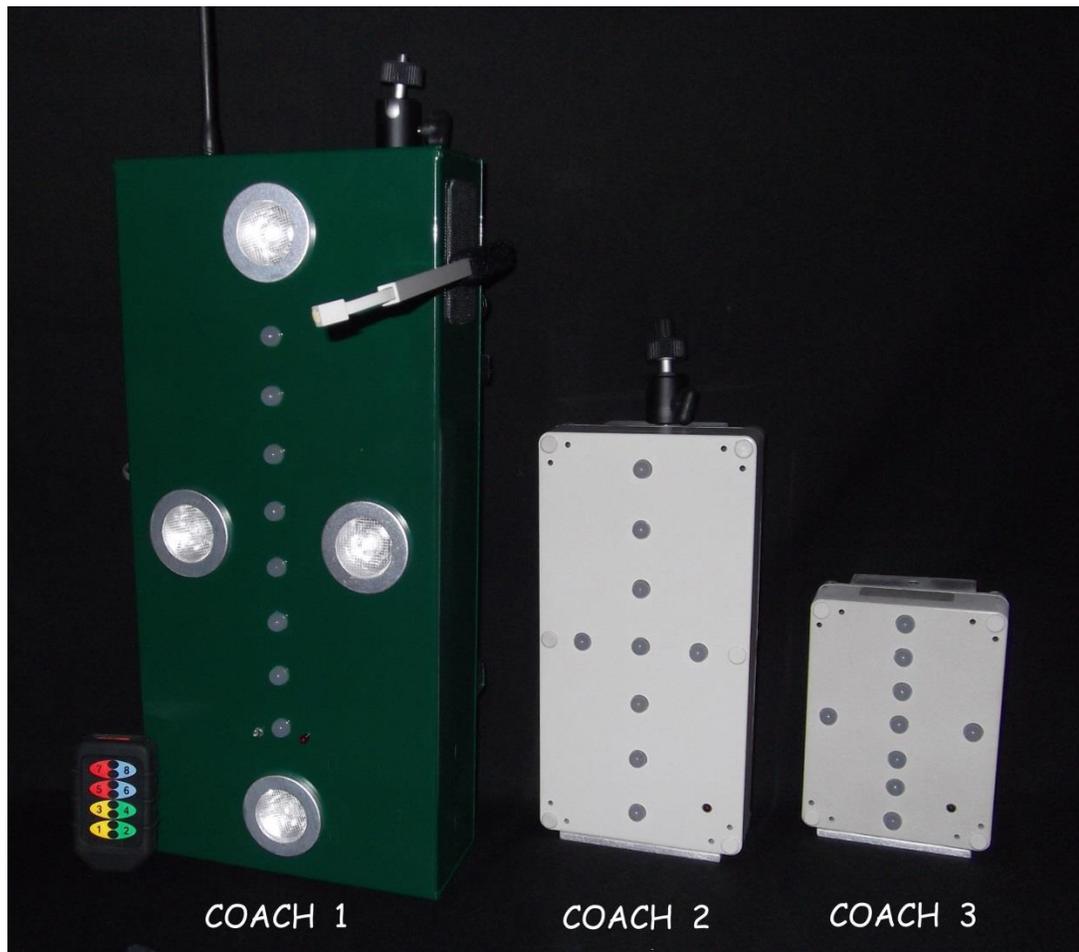


SPLIT STEP COACH 1

Baseball USERS

MANUAL

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INTRODUCTION

What factors make some individuals superior in skills during sporting events? This question has been asked by many coaches/trainers for as long as civilizations have existed.

The Split Step Coach (SSC) does not address all the factors, but it does address the issue of timed movement; movement has been and is a core factor that can help dedicated athletes in any sport be the best they can be. The SSC devices are best used when shadowing (i.e. no moving balls), but T-ball hitting can complement the learning experience.

SSC trains to maximize the starting acceleration with resulting speeds that allow quicker positioning of the individual or athlete, and thus better control of muscle groups involved in executing a [swing](#), a catch, a [kick](#), a [shot](#) or other [complex movements](#). A document on our website (www.Sports-Split-Step.com) called the '[Fundamental Movement](#)' provides an in-depth look behind the SSC line of products: COACH 1 (SSC1), COACH 2 (SSC2), COACH 3 (SSC3). More information can be obtained in several [Newsletters](#) found under Documents at our website (www.sports-split-step.com).

Directing our attention to the game of baseball, one might ask, "What are some of the fundamental movements seen with professional baseball players?"

BATTING

Professional players have their own rituals and timing, but all will have a loading and unloading to their swing. In this photo Barry Bonds has 1) determined where the pitch is coming, 2) whether to hit the ball, 3) loaded the bat and arms, 4) fully loaded the body and 5) about to start the kinetic chain by initiating what is called the forward 'stride'.

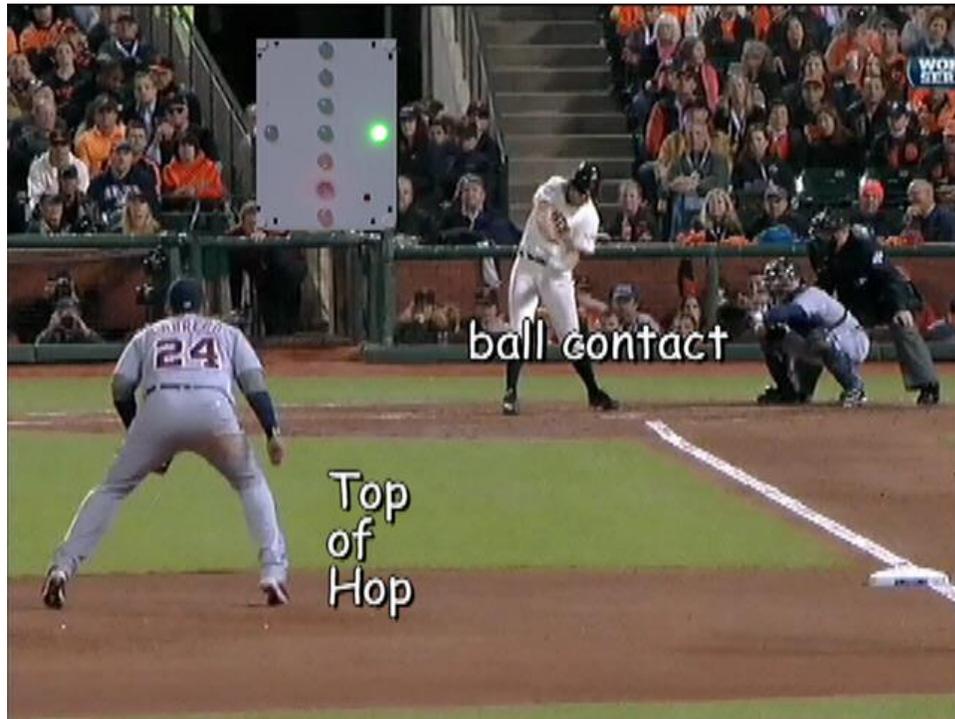


Barry Bonds forward stride

In the past these athletes developed these batting skills thru hard work and practice on the field with at least two and maybe three players involved (pitcher, batter and fielder). This is normally possible, but the hours of training to develop the number of executions uses up a lot of human resources and time for players/coaches to get the 10,000 reps needed to develop the muscle memory (sensory-motor pathways). A new teaching device can reduce the number of players involved and allow individuals (or groups of players) to initially train these skills and develop the timing and reactions necessary for training the sensory-motor pathways without either a mechanical pitching machine or a human pitcher.

FIELDING

Professional baseball players will perform the same basic movements on each and every ball hit by the batter before the batter strikes the ball. The fielder positions themselves on the field to be in best possible position before executing the following moves.



[Miguel Cabrera](#) pre-pitch hop (World Series 2012)

1. Before the batter hits the baseball, the defensive player will have moved to the most likely spot where the batter will hit the ball.
2. As the pitcher begins their windup the fielders will begin to load their legs for performing a HOP into the air before the batter hits the ball; [Pedroia 1](#), [Pedroia 2](#) may have the best timing and hop of all major league players.
3. Ball contact by the batter is an important time and the fielder's goal is to be at the TOP of their HOP when the bat strikes the ball, a point where their head and eyes are perfectly still and non-moving.
4. Reading the direction of the ball coming off the bat is a most important skill to develop and the fielder's goal is to determine this direction as they begin to descend from the TOP of the HOP to the playing surface. Timing is crucial for insuring the fielder the best possible chance to field the ball.

5. The fielder will always try (with some exceptions) to land on the foot that is away from the incoming ball so that gravity can help them accelerate as quickly as possible in the proper direction for the incoming ball.
6. After the fielder gets near the 'catch' they begin to decelerate by taking shorter steps in preparation for their throw.

Features & Differences of the Split Step Coach Series

COACH 1

Top of the line tool for indoor and outdoor training

Features include:

1. Large Panel Display,
2. Sixteen Progressive-skill Drills
3. Three levels of difficulty
4. Remote Control
5. Battery operation with charger
6. Advanced Color Feature
7. I-Pad Option
8. Video Option & Mount

COACH 2

Middle of the line tool for indoor and outdoor training

Features include:

1. Ten Progressive-skill Drills
2. Three levels of difficulty
3. Remote Control
4. Battery operation with charger
5. Advanced Color Option
6. Additional Five Drill Option
7. Camera Mount Option

COACH 3

Economical tool for indoor and outdoor training

Features include:

1. Ten Progressive-skill Drills
2. Additional Five Drill Option
3. Three levels of difficulty
4. Manual Pushbutton Control
5. Battery operation with charger
6. Camera Mount Option

Training Advantages

SSC emulates the movements and timing of athletes in many of the today's sports. Furthermore it provides a platform by which the player can perform what Daniel Coyle in his New York Times bestselling book, '[The Talent Code](#)', describes as 'Deep Training'. Deep Training is where an athlete executes repetitively sport specific movements at controlled speeds, so that execution can be near 95% perfect. In so doing the sensory-motor pathways for remembering are greatly enhanced; skill levels are easily adjusted with the SSC so more/less demands on reaction speed and complexity are available. By keeping the athlete on the verge of being challenged their motivation can be maintained for longer periods, thus aiding both athlete and coach.

1. Shortens and enhances the training of the pre-pitch and batter's stride.
2. Promotes better field coverage for infielders and outfielders.
3. Can be used with athletes before, during or after the introduction of 'swinging at' or 'fielding' balls.
4. Movements and technique can be practiced without having the skills required for hitting or catching a real ball.
5. Can be used on the field, in the batting pen, your driveway, or most any open area.
6. Precise measurements can be recorded with a video camera for evaluating an athlete's progress within the 3 different levels of difficulty and 16 different drills.
7. Allows the athlete to train with the same drills at various speeds so that accuracy in execution can be assured before increasing complexity.
8. The SSC provides a group of drills used with training batting skills and another group of drills for training both In/Out fielder's movements.
9. The group of fielding drills allows the fielders to train both the timing of the pre-pitch move and the timing of the catch/throw.

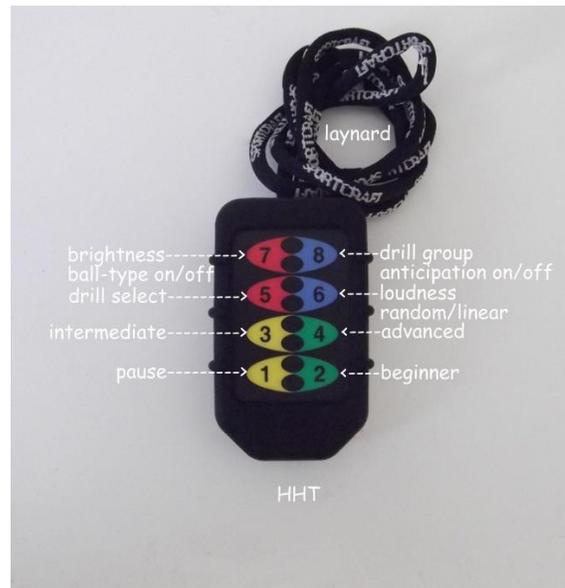


COACH 1

Setting up the COACH 1 Hardware

1. Unpack all of the ordered components: COACH 1 display panel, remote Hand Held Transmitter (HHT), Video Option (if ordered).
2. Mount the COACH 1 display panel by hanging it from a ball hopper, a stable table, or medium/large sized tripod; typically 36" to 48" above the field makes for the most realistic viewing.
3. For larger groups, COACH 1 can be elevated by extending the tripod or ladder, or hanging it from the back of the batting cage, thus allowing easy viewing for large groups. Groups up to 40 in number have been trained at one time for sports such as football & soccer using the tripod.
4. The panel's front surface should be aligned perpendicular to the athletes so that easy viewing of the LEDs; position players at 30 to 80 feet from the COACH 1 for proper viewing.
5. Power up the unit by using the switch on the left side of the chassis.
6. The default conditions after powering up are:
 - a. INTERMEDIATE mode operation
 - b. Batting Practice drills will begin with drill #1 and will automatically sequence thru the reps for this drill and then proceed to drill 2 thru 8 (this is called auto-sequence).
 - c. Auto-sequence can be CANCELLED by pressing Button 5.

Using the Remote



Remote Key Functions

1. Button 1 will STOP (PAUSE) a drill, and a second press will re-START at the same drill at the beginning.
2. Button 2 will select the lowest LEVEL of difficulty (Beginner), bottom large LED will turn ON momentarily.
3. Button 3 will select the next LEVEL of difficulty (Intermediate), bottom and right large LED will turn ON momentarily.
4. Button 4 will select the highest LEVEL of difficulty (Advanced), bottom, right and top large LED will turn ON momentarily.
5. Button 5 will sequence to the next DRILL (1 thru 8 then auto-seq).
6. Button 6 will cycle the buzzer loudness thru 4 different levels, including MUTE.
7. Button 7 will cycle the Directional LED brightness thru 4 different levels.
8. Button 8 will switch between the 8 BATTING Drills and the 8 FIELDING Drills; the LARGE GREEN LEDs will flash when in the Batting Drills, the LARGE RED LEDs will flash when in the Fielding Drills.
9. Button 1 (press & release) followed by Button 7 (press & release) will toggle between Normal and Advanced Color Mode of Operation (allows batter/fielder to see directions LEDs in a RANDOM selection of either GREEN, YELLOW or RED); see general operations below.
10. Button 1 (press & release) followed by Button 6 (press & release) will toggle between LINEAR & RANDOM modes; this increases the challenge for players.

General Operations

1. There are 8 different BATTING drills (see section on Drill Descriptions).
2. There are 8 different FIELDING drills.
3. Remote button presses of 1/2 second duration will select or change the mode of operation; when button 5 is held down continuously the effect will simulate multiple button presses with ~1 second intervals while the drills sequence.
4. The user can stop the startup automatic sequencing of drills by pressing Button 5 on the Hand Held Transmitter (HHT) one time, which will select Drill #1 (TOP small RED LED will flash) while keeping all other parameters the same.
5. Once Button 5 is pressed, Drill #1 will run continuously, until Button 1 (PAUSE) is pressed or another drill is selected by pressing Button 5.
6. The DRILL # selection can continue in this fashion thru DRILL #8 at which time another push would activate the automatic sequencing mode.
7. This sequence mode will automatically execute a Drill and then sequence to the next Drill (#1, #2, #3, #4, #5, #6, #7, #8) and then repeat; this is a good warm up mode for athletes arriving early for their lesson.
8. Again, to exit the automatic sequencing mode the user would press Button 5 one more time and Drill #1 will begin executing while remaining at the same LEVEL of difficulty.
9. You can select the various drill packages (BATTING, FIELDING) by pressing and releasing Button 8 until the desired package is selected.
10. Green LEDs indicate =>BATTING, Red LEDs indicate =>FIELDING drills.
11. Selecting the ball-type operation (pause button 1, then button 6) will allow the batter or fielder to add another dimension of complexity for learning how to respond to different balls: coaches can assign various attributes to the colors (i.e. for batters =>knuckle ball =YELLOW, fast ball = RED, slider = GREEN or for fielders => YELLOW = throw to second base, RED = throw to home base, GREEN = throw to first or for catchers => YELLOW = throw to second base, RED = throw to third, GREEN = throw to first).
11. Any of the drills at any of the 3 different levels of difficulty can be either RANDOM or LINEAR.
12. To toggle the RANDOM/LINEAR move press the pause button 1, then button 6; the LEFT DL will flash whenever the user selects the RANDOM mode, (no flash when selecting the LINEAR mode).

The LEVELS of Drills vary in difficulty

1. BEGINNER: Lowest difficulty (slower tempo within & between shots)
2. INTERMEDIATE: moderate difficulty (faster tempo within & between shots)
3. ADVANCED: most difficult (fastest tempo within & between shots)

Recognizing which DRILL & which LEVEL is active

1. BEGINNER => bottom Directional LED is ON
2. INTERMEDIATE => bottom & right Directional LEDs are ON
3. ADVANCED => bottom, right & top Directional LEDs are ON
4. DRILL #1 => top RED LED is ON
5. DRILL #2 => top 2 RED LEDs are ON
6. DRILL #3 thru DRILL #8 turn on a corresponding number of RED LEDs
7. CUSTOM Drills => left Directional LED will be turned ON
8. BASIC Drills => left Directional LED will be turned OFF
9. Left Directional LED will flash if in RANDOM mode, when a selection is made on the Remote Control.

Using the Video Option



There are many locations where one could mount the camera and record the batter or fielder along with precise times when movement should be occurring. This allows the athletes to obtain valuable feedback so that they can quickly make corrections before bad habits are reinforced.

1. The [Video Option](#) is a device that mounts to the microphone shoe of a video camera or attaches via a piece of Velcro to the side of a camera, or the side of the COACH 1 chassis.

2. The Video Option has a small RED LED that is illuminated at 2 important times during a Batter's reaction to the pitcher's release of the ball or a Fielder's reaction to the bat striking a ball.
3. These 2 pulses of light from the Video Option LED along with the image of the player are recorded onto a video device and can be used by the coach/player to analyze how well the player is timing their movements.
4. The first pulse of light from the Video Option occurs when the sequence of RED LED's on the display all turn OFF, for example, the fielder is just beginning to rise off the ground towards the TOP of the HOP, or the pitcher is just releasing the ball. This Video Option RED LED stays ON for about 1 to 2 video frames (less than 0.1 sec).
5. The second pulse of light (1 to 2 video frames long) occurs when the fielder releases the throw or the batter strikes the ball. For example, after the fielder lands, moves to the fielding position, and simulates the catch and throw to first base.
6. By using the STOP motion control on the video camera, a coach can review the previously executed movement and measure the accuracy and consistency of the player's timing to within 1 video frame (0.033 Sec). This kind of feedback minimizes the training time required for the player to acquire skills and assures the coach that bad executions will be minimized before they become engrained habits.
7. An audio buzzer located on the COACH 1 chassis will also beep in synchronization with the pulse of light so that the player can get immediate audio feedback as they are being performed.

Quick Guide for the COACH 1

TABLE 1 Batting/Catching DRILLS - GREEN

(A Sequence of Movements for **Batting or Catching**)

1. Stride timing (i.e. RED LEDs only)
2. Stride timing with pitch to the LEFT side of strike zone
3. Stride timing with pitch to the RIGHT side of strike zone
4. Stride timing with pitch HIGH side of strike zone
5. Stride timing with pitch LOW side of strike zone
6. Stride timing with pitch to the RIGHT, then down the middle (both YELLOW LEDs come ON), then to the LEFT
7. Stride timing with pitch alternating between HIGH, RIGHT, LOW, and LEFT sides of strike zone
8. Stride timing with pitch to the LEFT, 45 deg (UP and to LEFT), TOP, 45 deg (UP and to RIGHT), RIGHT, 45 deg (BACK and to the RIGHT), BOTTOM, 45 deg (BACK and to LEFT).

TABLE 2 Fielding DRILLS - RED

(A Sequence of Movements for either **In/Out Fielders**)

1. Hop and movement timing (i.e. RED LEDs only no ball)
2. Hop and movement timing with ball hit to the LEFT side of player
3. Hop and movement timing with ball hit to the RIGHT side of player
4. Hop and movement timing with ball POP-up behind the player
5. Hop and movement timing with ball bunted in front of the player
6. Hop and movement timing with ball hit to the RIGHT, then at the player (both YELLOW LEDs come ON), then to the LEFT
7. Hop and movement timing with ball hit HIGH, RIGHT, LOW, and LEFT sides of player
8. Hop and movement timing with balls hit to any of the 8 different directions:
 - a. Top LED => move 'In' for a Bunt
 - b. Bottom LED => move 'Back' for a pop-up
 - c. Left LED => normal ground ball to left side
 - d. Right LED => normal ground ball to right side
 - e. Top & Left => move at 45 deg to left for a Bunt
 - f. Top & Right => move at 45 deg to right for a Bunt
 - g. Bottom & Left => move at 45 deg to left and back for a pop-up
 - h. Bottom & Right => move at 45 deg to right and back for a pop-up

Limited 3 Year Warranty

Sports Split Step provides product purchasers with a limited 3 year warranty for all products.

Limited 3 Year Warranty Clauses

1. In order to be eligible for Sports Split Step Limited 3 Year Warranty, product registration must be completed by the purchaser. The warranty of the purchased product is activated from the completion date of the product registration at Sports Split Step or from an authorized distributor. Sports Split Step reserves the right to determine the eligibility of the product registration if the registration process is delayed by the purchaser for more than three months after the original purchase date. Satisfactory proof is required to claim the warranty; for example, the invoice from the initial purchase.
2. The Limited 3 Year Warranty is for the original purchaser only. In the event of a sale or product transfer by the original purchaser to a third party, the warranty period shall be as described in the "After the Limited 3 Year Warranty Period".
3. If the product is operated under a normal operating environment during the warranty period and a malfunction is not caused by external or internal self-assembly, Sports Split Step reserves the right to exchange components, repair, or substitute the appropriate types of products at its discretion.
4. All replaced parts will be brand new parts. These can include but are not limited to: new components, modules, or substitute products for repairing.
5. When the product has exceeded the warranty period, warranty clauses, or is otherwise inapplicable to warranty (please refer to the "After the Limited 3 Year Warranty" section), maintenance service, replacement, shipment, and any other related charges might occur.

Other Exception Clauses

Sports Split Step guarantees its products against defects in materials and workmanship under limited conditions. However, under the following exceptions, Sports Split Step has no liability to provide warranty services for the repair or maintenance without charge.

1. Damages caused by accidental events, damages due to the human force or self-assembly, damages caused by negligence of maintenance or modification behaviors without authorized technical support.
2. Damages resulting from any natural disaster.
3. The appearance of a product due to dust, dirt and age, normal wear of mechanical components and accessories outside of the product itself.
4. Purchasers are responsible to pack the repair product in good condition and ship it to the original distributor/representative. Shipping charges must be paid by the sender.

After the Limited 3 Year Warranty Period

If the received products have exceeded the warranty time, Sports Split Step will still provide the related repair and or maintenance services. However, the owners of the products are responsible for the repair and or maintenance charges, the return shipping charges and any additional costs.

Call Factory (530-272-7345) for any questions or problems you encounter.