



**THUNDER & LIGHTNING**  
PERFORMANCE

# SPRINTING MECHANICS GUIDE FOR **HIGH SCHOOL** ATHLETES

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**CONNOR ABREU** | @TNLPERFORMANCE



# PHASE 1 - ACCELERATION

## GENERAL CONCEPTS:

- DISTANCE 0-20YD
- BUILD UP MOVEMENT VELOCITY & SPEED

## DO'S

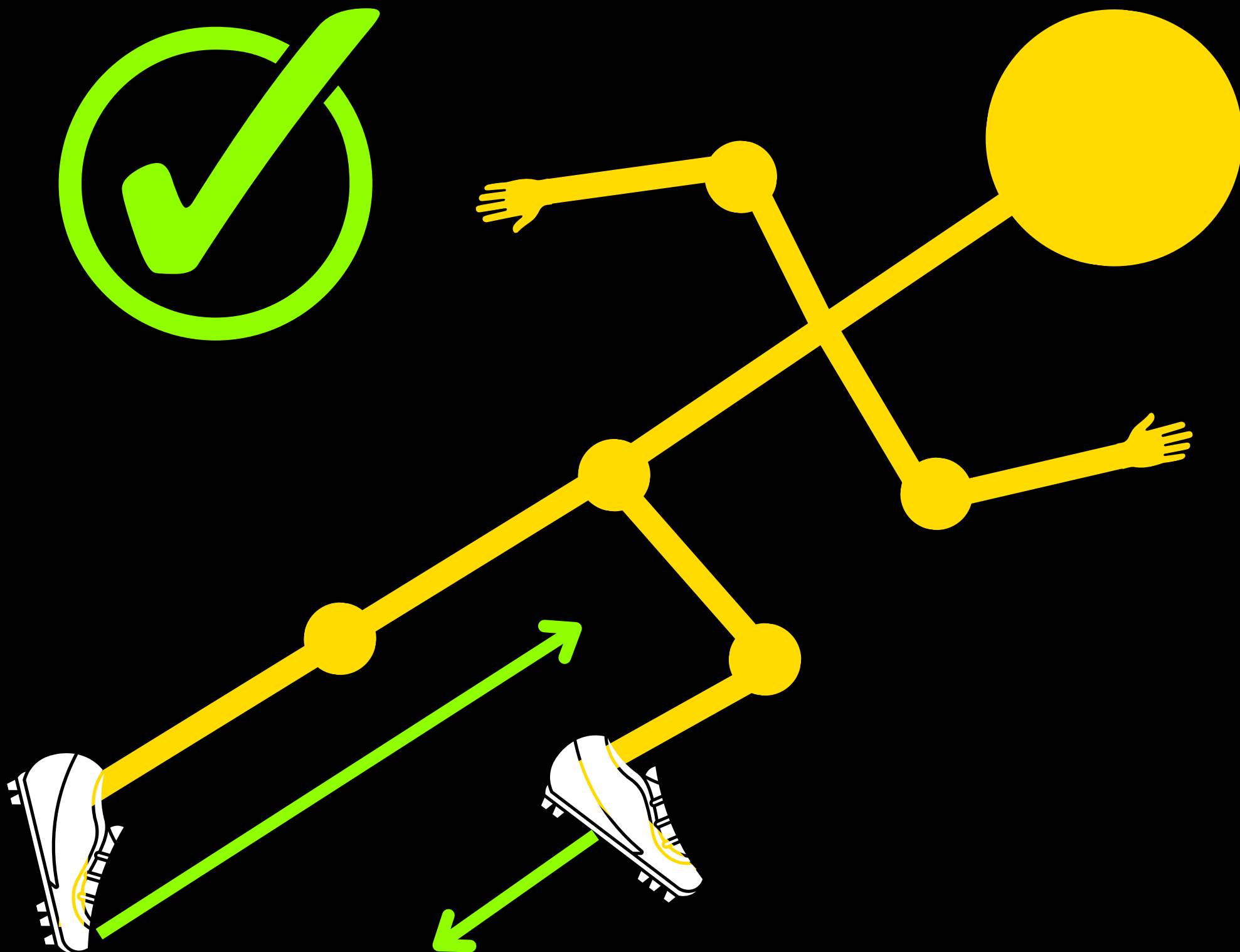
- FOOT STRIKES BACK & DOWN
- PISTON ACTION LEG ACTION VIA HIP
- GROUND CONTACT UNDER THE HIPS
- LONGER GROUND CONTACT TIMES
- LOWER STRIDE

## DONT'S

- REACH STRIDES FORWARD
- GROUND CONTACT IN FRONT ON HIPS
- HIGH HEEL RECOVERY OR BUTT KICK
- EXTEND THROUGH KNEE ONLY

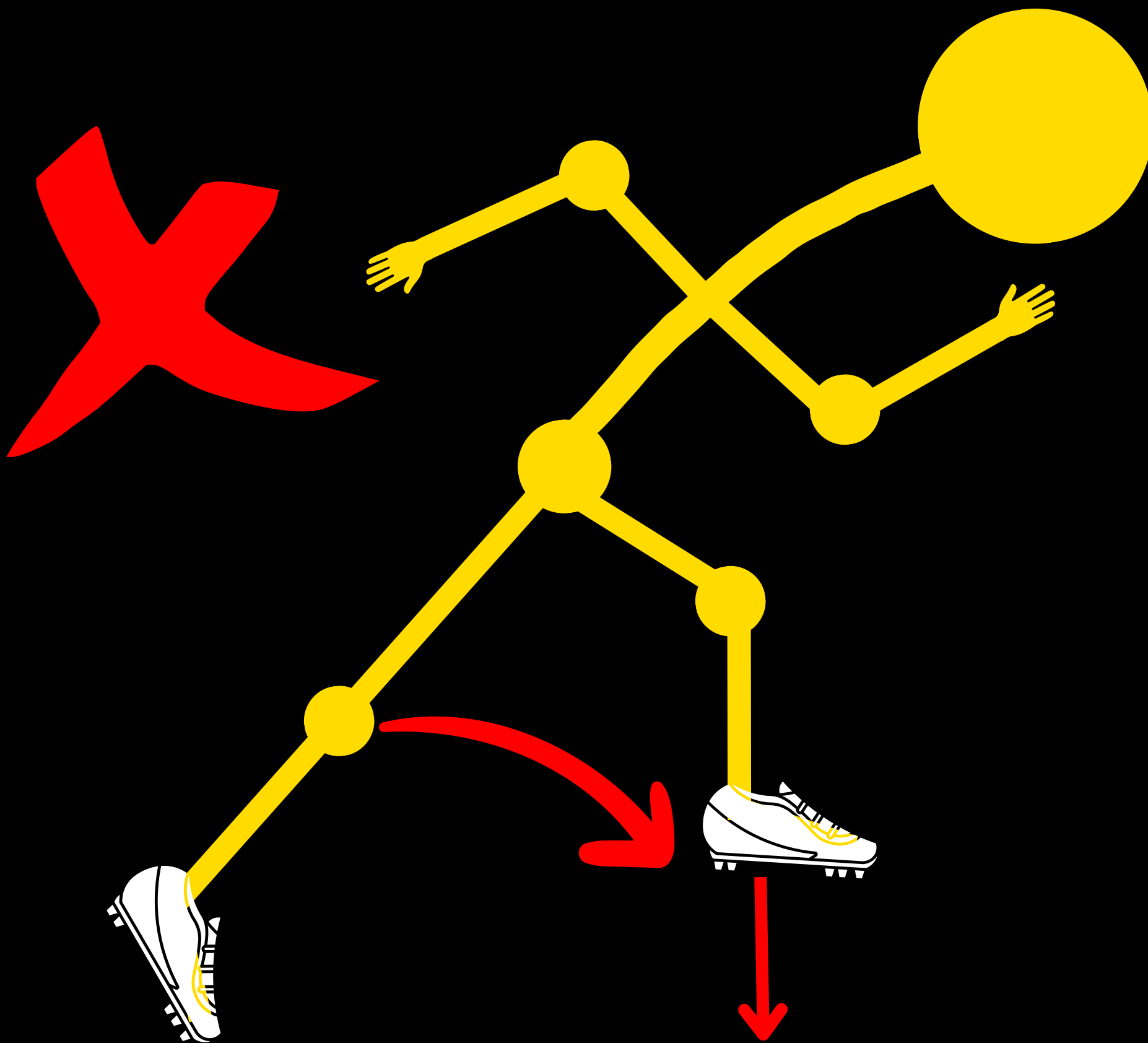


# ACCELERATION



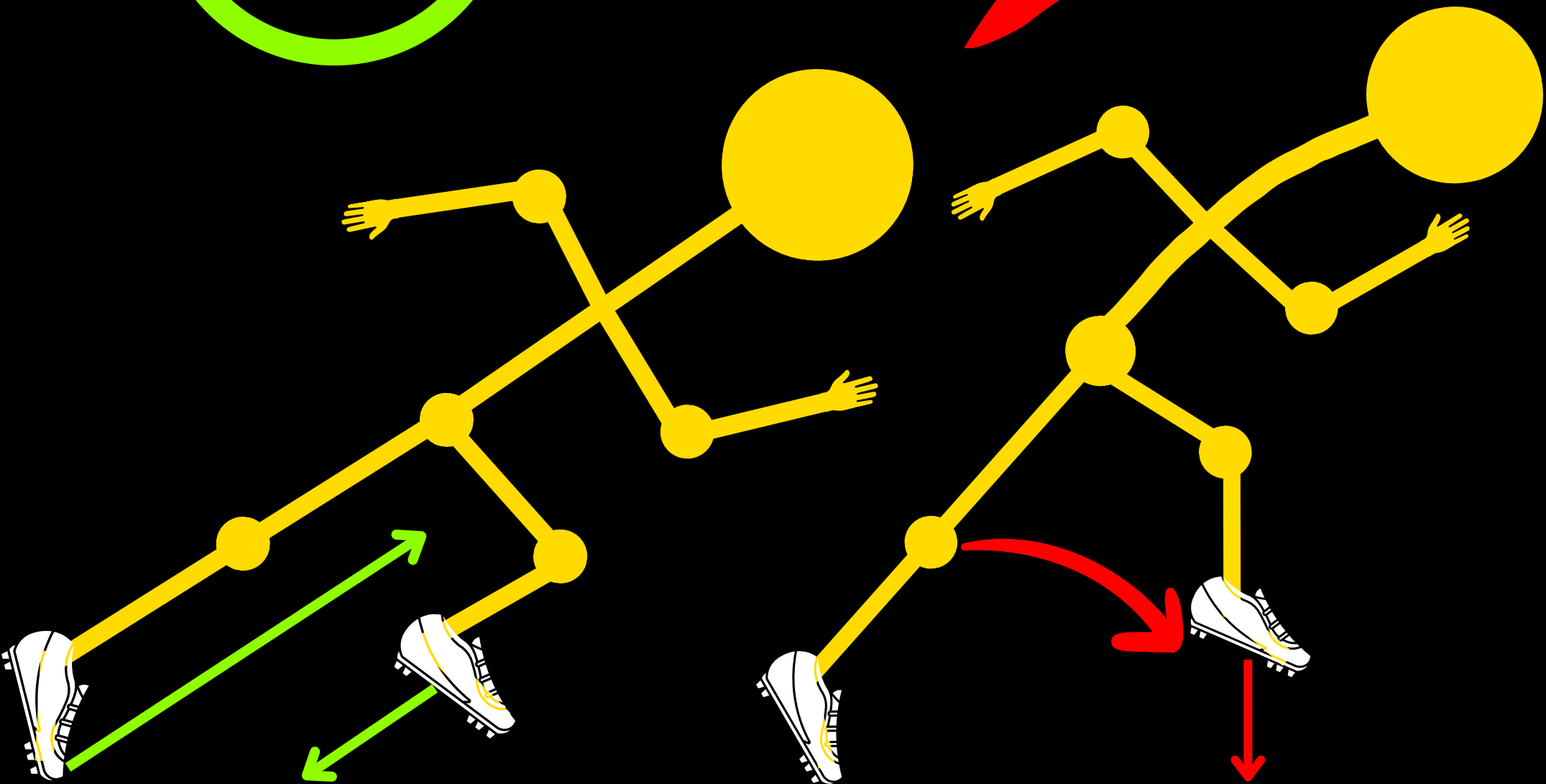


# ACCELERATION





# ACCELERATION







# ACCELERATION


## BEFORE & AFTER



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 Acceleration Technique Before & After Share



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# ACCELERATION DRILLS



**[\\*CLICK HERE OR THE YOUTUBE BUTTON ABOVE FOR VIDEO DRILLS\\*](#)**  
**SETS & REPS ARE IN THE DESCRIPTION IN EACH VIDEO**





# ACCELERATION DRILLS

PERFORM ALL DRILLS AFTER A FULL DYNAMIC WARM UP (IN ORDER)

## A SERIES

- A WALK: 4 SETS OF 5YD
- A MARCH: 2 SETS OF 10YD
- RHYTHMIC A MARCH: 2 SETS OF 15YD, REST 1.5 MIN

## DRIVES / SWITCHES (REST 1-2 MIN BETWEEN SETS)

1. LOAD & EXPLODE DRIVE: 3 SETS OF 4 PER SIDE
2. LOAD & EXPLODE SWITCH: 3 SETS OF 3 PER SIDE
3. 2-POINT STANCE DRIVE: 3 SETS OF 4 PER SIDE
4. HALF KNEELING SWITCH: 3 SETS OF 3 PER SIDE

## ACCELERATION STARTS (REST 1.5 MIN BETWEEN SPRINTS)

1. HALF KNEELING FORWARD SPRINT: 15YD, 2 PER SIDE
2. HALF KNEELING SIDE START: 15YD, 2 PER SIDE





# PHASE 2 -TOP SPEED

## GENERAL CONCEPTS:

- DISTANCE 30+YD
- GREATER VERTICAL FORCES NEEDED
- HIGHEST MOVEMENT VELOCITY & SPEED

## DO'S

- CYCLICAL LEG ACTION  
(DOWN)
- LEG STRIKES UNDER HIPS
- SHORTER GROUND CONTACT  
TIMES
- HIGHER STRIDE FREQUENCY
- GREATER STRIDE LENGTH
- MORE AIR TIME
- UPRIGHT POSTURE

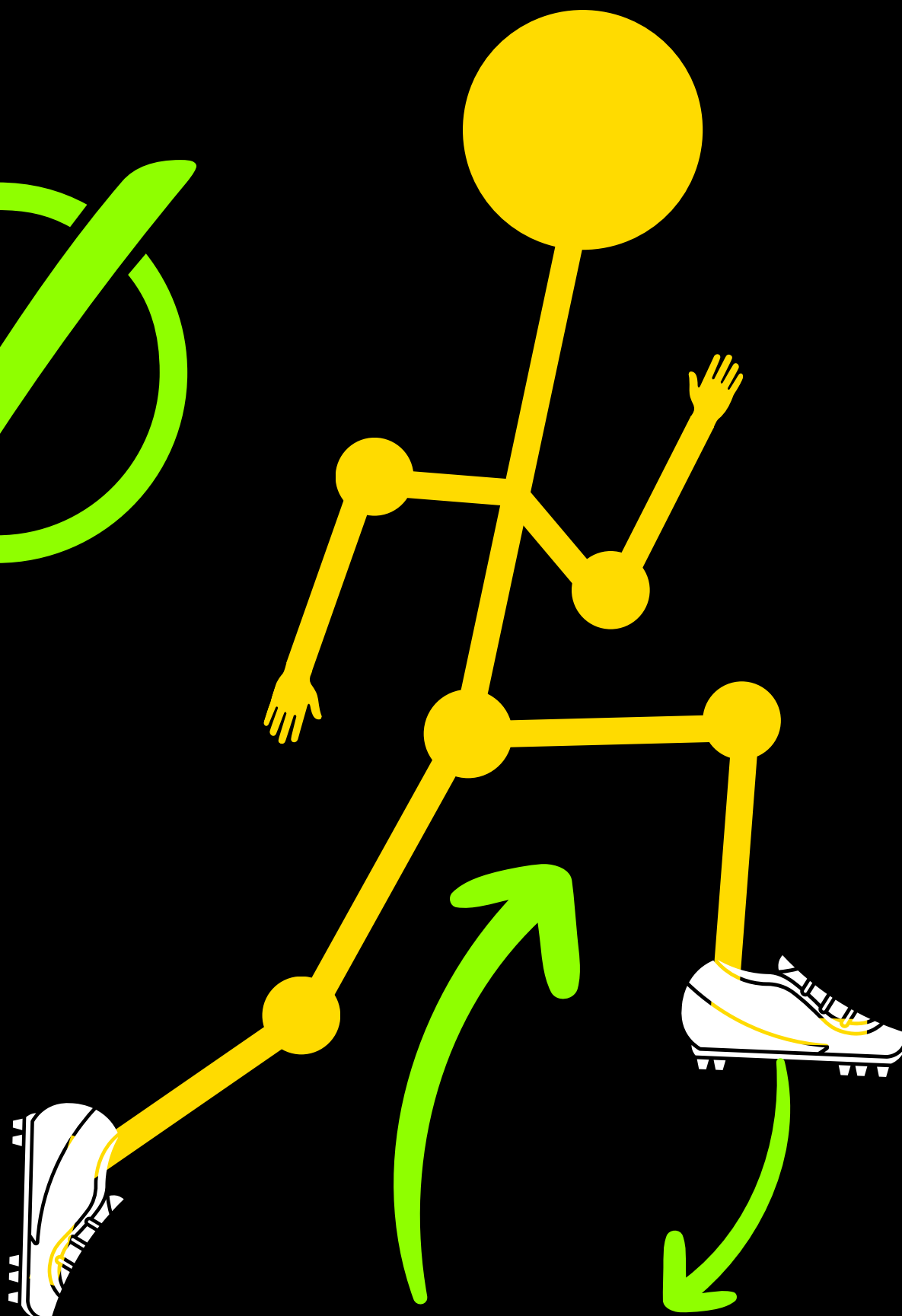
## DONT'S

- REACH STRIDES FORWARD
- LOSE UPRIGHT POSTURE
- HAVE WEAK GROUND  
STRIKES
- STRIKE THE GROUND IN  
FRONT OF BODY
- LOSE LOWER LEG  
STIFFNESS



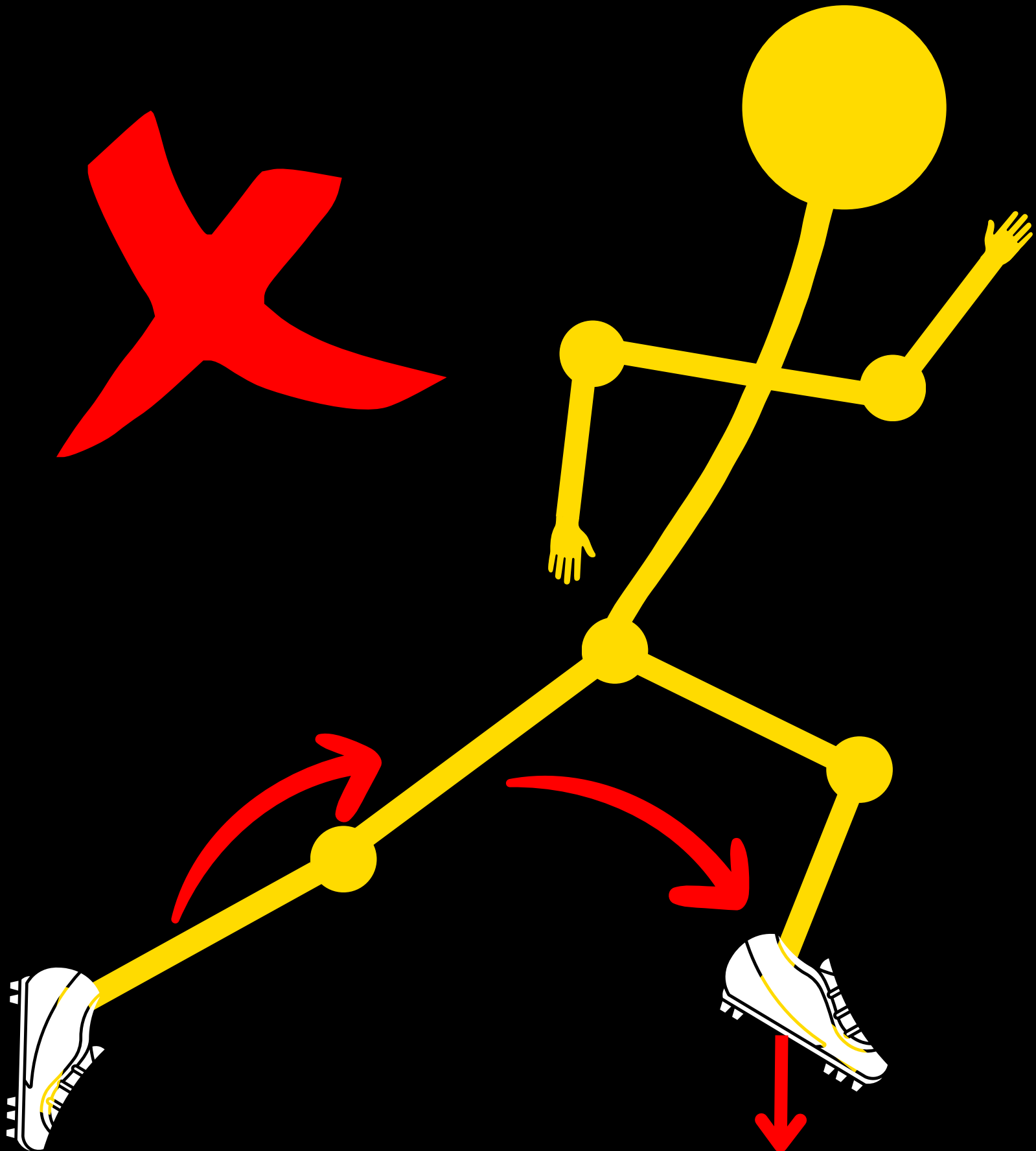
# TOP SPEED

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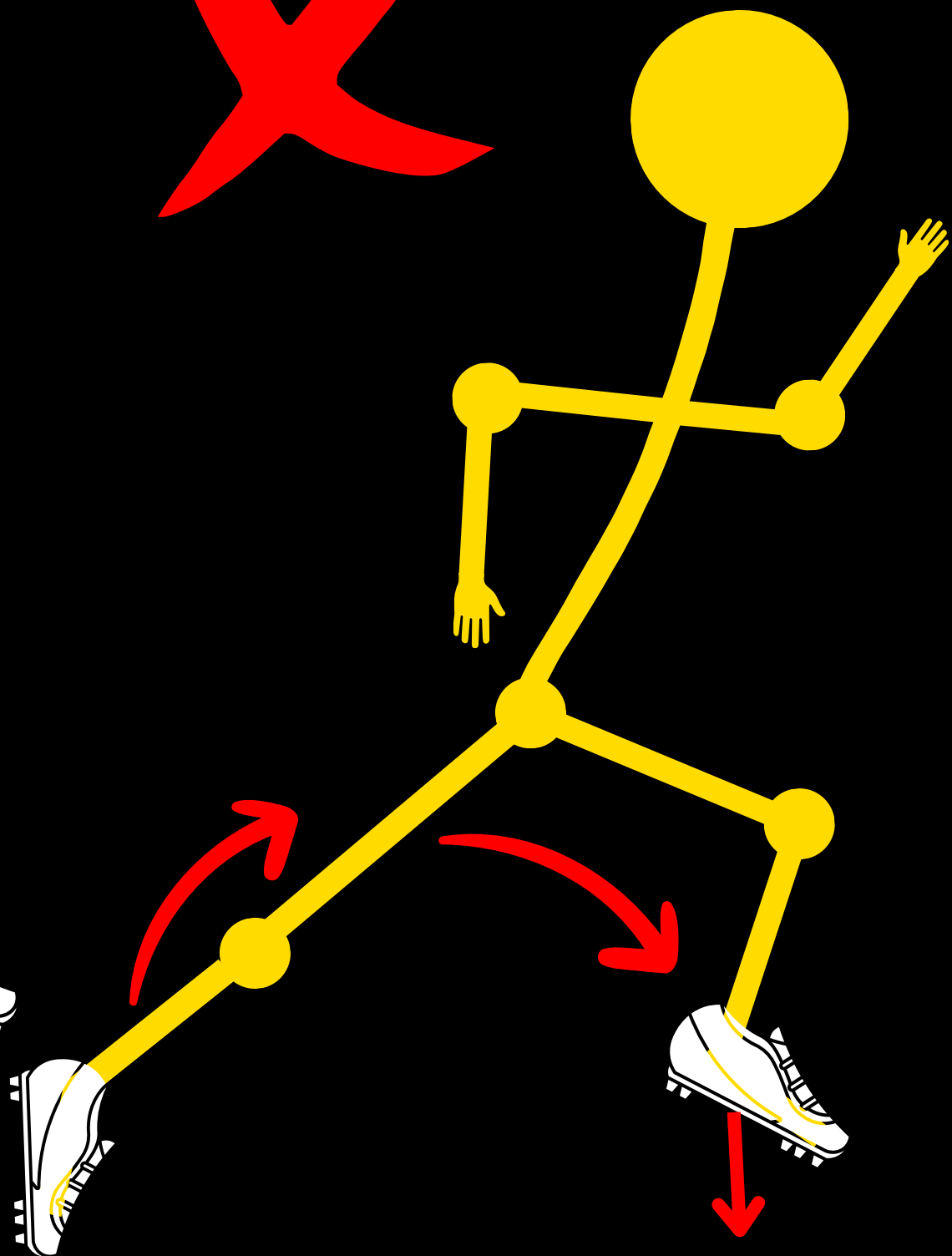
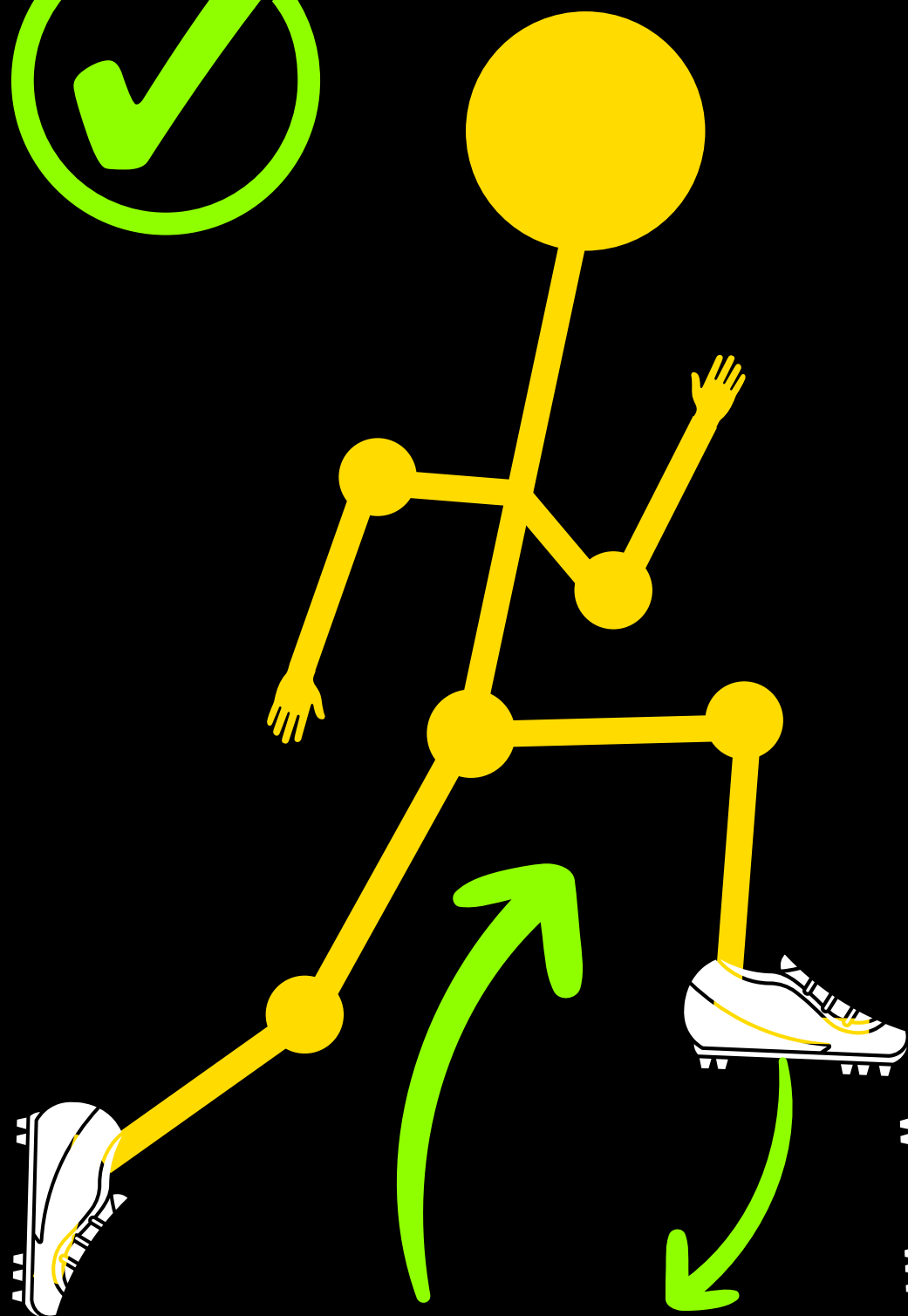


# TOP SPEED





# TOP SPEED





# TOP SPEED

## BEFORE & AFTER




[\\*CLICK HERE OR THE YOUTUBE BUTTON ABOVE FOR VIDEO\\*](#)



Sprint Progress: Before & After



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# TOP SPEED DRILLS



**[\\*CLICK HERE OR THE YOUTUBE BUTTON ABOVE FOR VIDEO DRILLS\\*](#)**  
**SETS & REPS ARE IN NEXT PAGE & THE DESCRIPTION IN EACH VIDEO**





# TOP SPEED DRILLS

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**PERFORM ALL DRILLS AFTER A FULL DYNAMIC WARM UP (IN ORDER)**

## **SCISSOR SERIES**

- **LOW SCISSORS: 2 SETS OF 15YD, REST 1 MIN**
- **SCISSRO RUN: 2 SETS OF 20YD, REST 1.5 MIN**
- **SCISSOR BOUNDS: 2 SETS OF 30YD, REST 2 MIN**

## **DRIBBLE SERIES**

- 1. ANKLE DRIBBLES: 3 SETS OF 20YD, WALK BACK = REST**
- 2. CALF DRIBBLES: 3 SETS OF 20YD, WALK BACK = REST**
- 3. KNEE DRIBBLES: 3 SETS OF 20YD, REST 1.5-2 MINUTES**
- 4. DRIBBLE BLEED: 3 SETS OF 10+20YD; TRANSITION FROM ANKLE TO KNEE DRIBBLES FOR 10YD AND THEN SPRINT OUT FOR REMAINING DISTANCE**