

Training Considerations for the Rotational Shot Put

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- Sprints, Hurdles, & Jumps coach who had to start coaching the throws
- Coaching education (Pre and Post)
- Coaching mentors
- Never stop learning
- Facility and weather constraints
- Find what works for the athletes you coach
- Athletes trust is the most important factor in coaching

Advantages of rotational shot

- Increases range over which the shot can be accelerated
- Shot is carried through a longer distance which allows for a longer period to apply force
- Ability of athletes of smaller stature, strength levels, and body weight to achieve results



Biomotor Abilities

- Speed, Strength, Endurance, Flexibility, Coordination
- Train all biomotor abilities but proportionally different depending on the time of the year
- Coordination is essential to developing throwers
 - Balance, rhythm, technical execution
- For shot putters huge focus on NM development
 - Acceleration work, strength work, power

General Prep

- Endurance
 - building work capacity- circle, weight room
 - Med ball circuits, GS circuits with sprints
- Speed & strength addressed
 - Acceleration Development (10-30m range)
 - Hills, Stadiums, Sled Pulls
 - Strength addressed in the weight room
 - General Strength
- Coordination via drills
 - Freshman won't throw an actual shot for first 6-8 weeks
 - Balance drills

Specific Prep

- Focus on strength development & coordination
 - Max Strength phase
 - Full throws with the implements
- Endurance decreases
- Speed addressed weekly
 - Acceleration development
- By the end of the phase need to be meet ready

Pre Comp

- Focus is on coordination & speed
- Start to phase out all the drills unless an athlete needs to revisit them
- Working on timing and rhythm of the throw
 - Athlete needs time to adjust to the competition shot and timing of the throw
 - For beginners- predominately use competition shot during technical days
 - More advanced athletes can use heavy and light implements and they are better able to adjust back to the timing of the competition shot

Comp Phase

- Focus on coordination
- Maintain levels in all other abilities
- Low volume of throws
- Drills are phased out, rehearsing full throws during technical days
- Preparation on the technical days tends to be comparable to highest level of competition warm up time frame

Coordination Development

- Coordination
 - Agility
 - Mobility
 - Balance- maintaining stability
 - MB Balance Drills, Static Balance Drills
 - Motor Patterns
 - Need to be taught and integrate the new motor patterns
 - Technical Execution
 - Need to be very good at moving on single and double support



Critical Concepts- Rotational Shot Put

- **Balance**

- Maintaining stability throughout the throw (single support/double support)

- **Positioning**

- Postural alignment
- Movement of limbs

- **Rhythm**

- Uniform acceleration
- Timing

- **Technical Execution**

Phases of the throw

- Wind Up
- Entry Phase
- Drive Phase
- Flight Phase
- Transition Position
- Delivery Phase



Wind Up



- Feet shoulder width apart
- Variations in knee bend between athletes
- Rotate torso keeping shoulders level
- Left foot, knee, and arm work in unison
- Right foot kept flat, left foot and knee rotate inward

Entry Phase

- Left foot, knee, hip turn as center of gravity shifts over left foot
- Right leg sweeps wide, lead with inner thigh
- Long left arm counters wide right leg



Drive Phase



- Right knee lifts across circle
- Left leg actively drives at same time as right knee lifts across circle
- Keep left arm long
- Timing of this phase is critical
 - If occurs too late will over rotate
 - If occurs too early will under rotate

Flight Phase

- Left arm relaxes and lowers
- Reposition yourself around the shot creating separation
- Left knee close to right knee
- Upper body tilts away from the sector



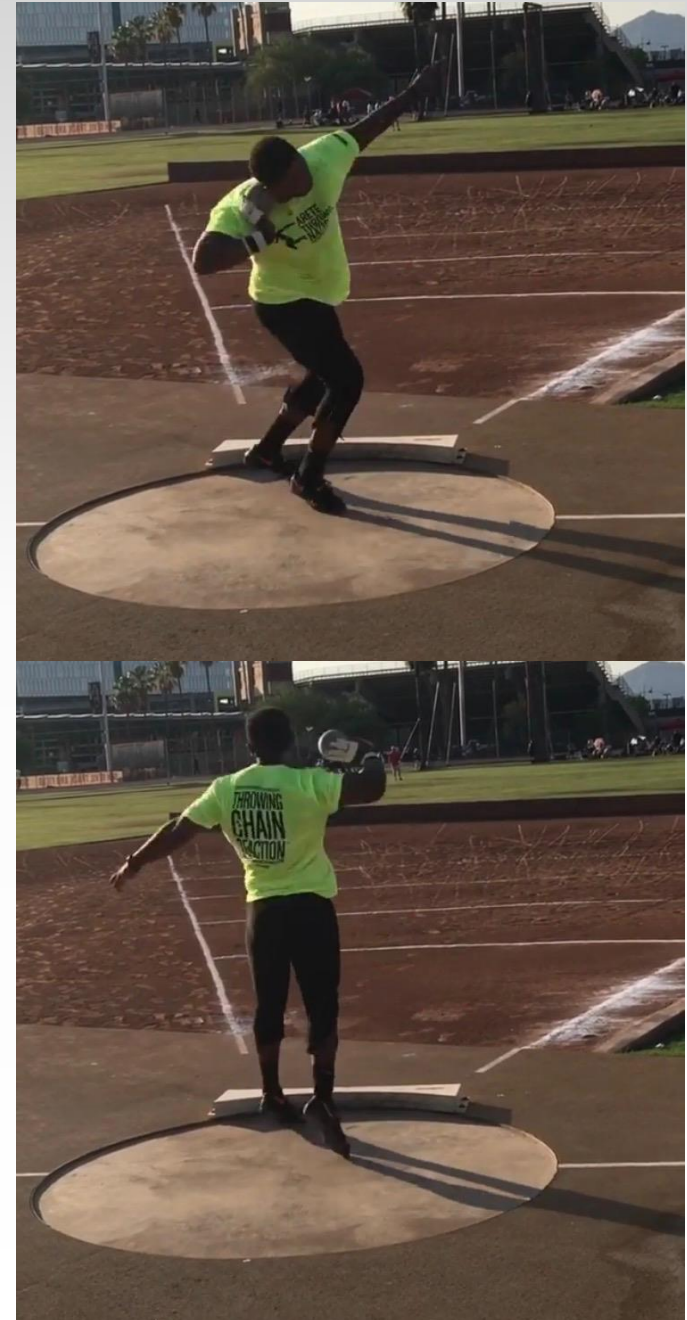
Transition Phase



- Right foot touches down and immediately pivots
- Left foot touches down after right
- Shoulders remain wrapped to back of the circle
- Torso should be over hips
- Weight should remain over right leg

Delivery

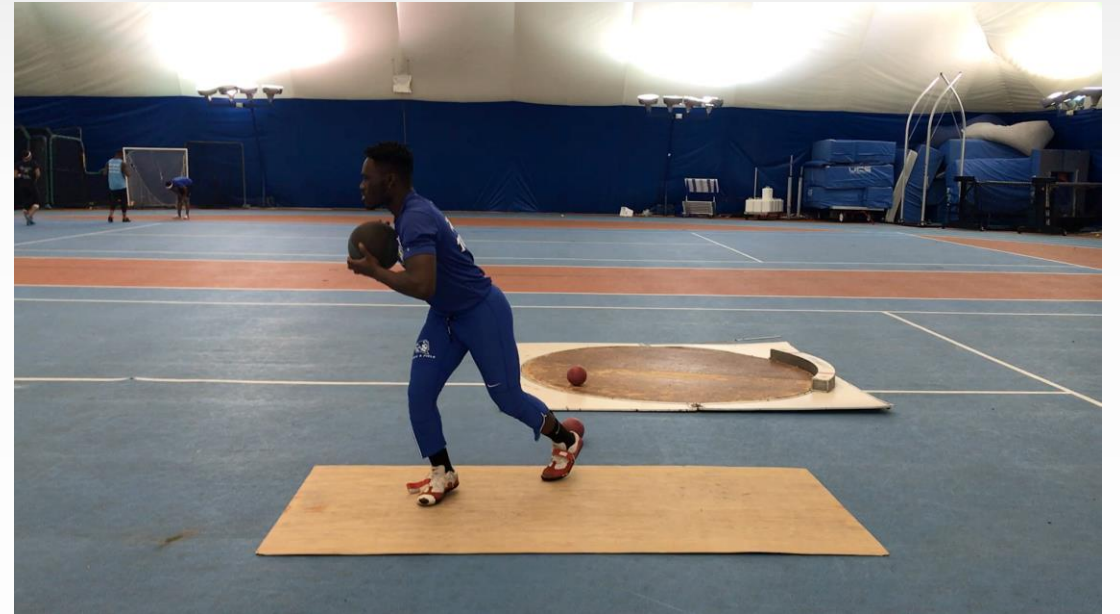
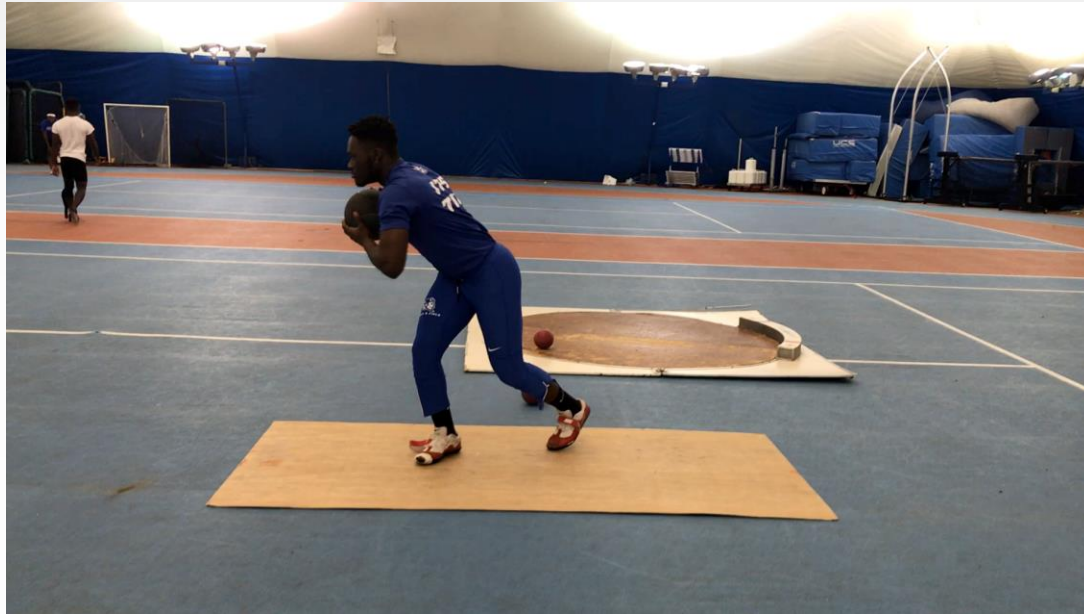
- Right foot continues to pivot towards middle of sector
- Actively drive upward, fully extending legs
- Keep chest up, shoulders and hips will rotate to middle of the sector
- Left arm will extend out towards throw
- Both feet will come off the ground
- Right arm will fire in sequence (shoulder, elbow, wrist)



Teaching progression

- Series of MB drills (perform 2-3x/week in general prep)
- Will only have the athlete use a MB
- Focus is on technical execution and feeling certain positions throughout the throw
- If can't feel the positions at a slow velocity, will struggle to hit some positions at a fast velocity
- Gives context to the technique to progress them to the full throw
- Will not move forward to the next drill unless they are close to being proficient at the previous drill

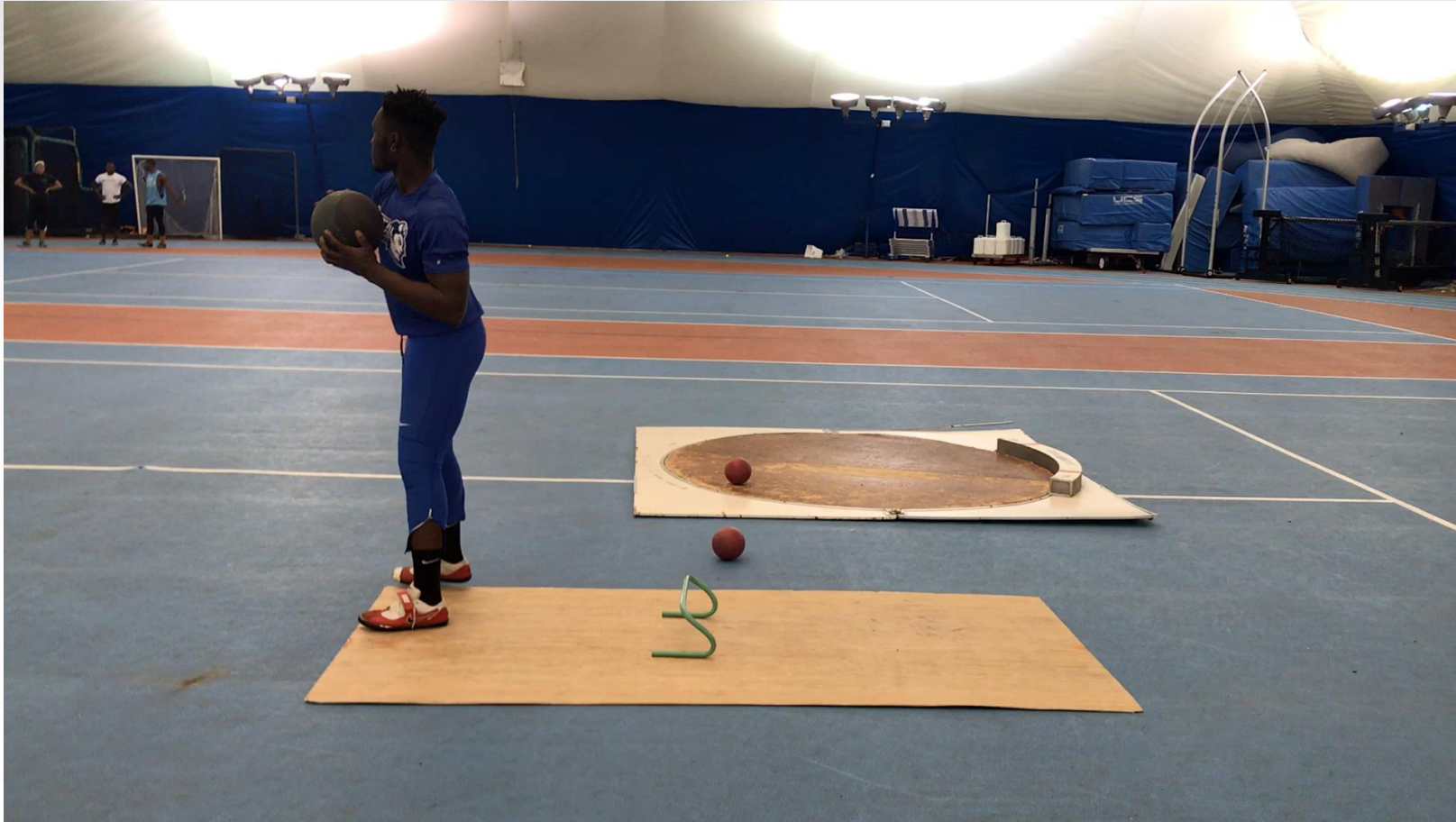
MB Power Position



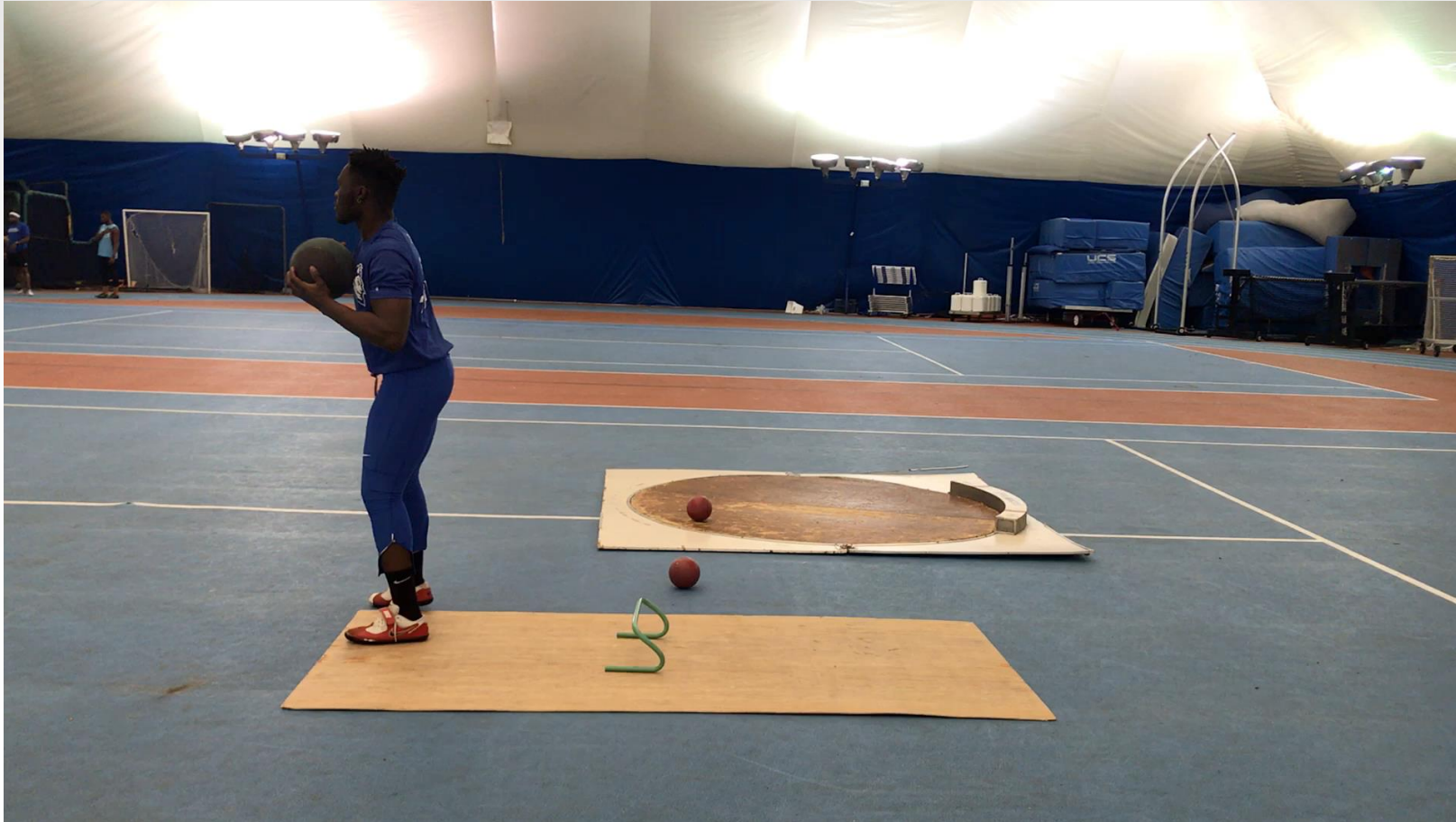
MB ½ Turns

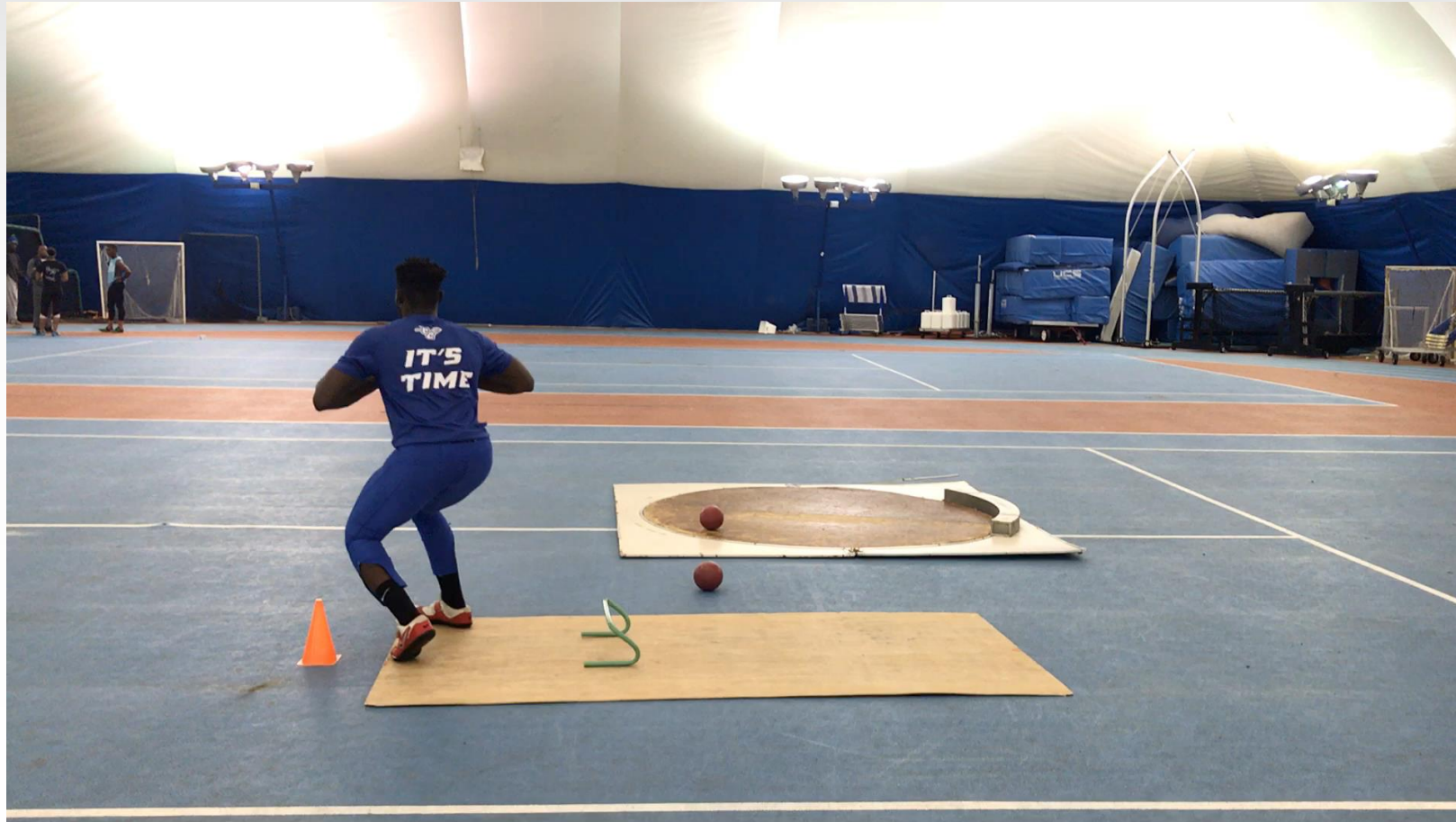


MB $\frac{1}{4}$ Turn w/ pause drive across circle



MB ¼ Turn w/ pause to SA







Training Considerations

- All major technical changes need to take place during the fall
- 1st 6 -8 weeks of training freshman won't touch the implements
- Focus on correct technique and fixing technical problems they acquired during high school
- Won't let them throw the shot until they have the basics of the rotational technique down- relearn motor patterns
- Skill acquisition
- Whole vs Part practice
- Drills are to feel certain positions and postural alignment
- Athletes need to be meet ready before they leave for Christmas break

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- Thank you

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