



EXCEL HOCKEY GROUP



Forward Stride Analysis

Prepared for:

Knowledge π Ability π Excellence

1 – SSG Phase Knee Flexion Angle

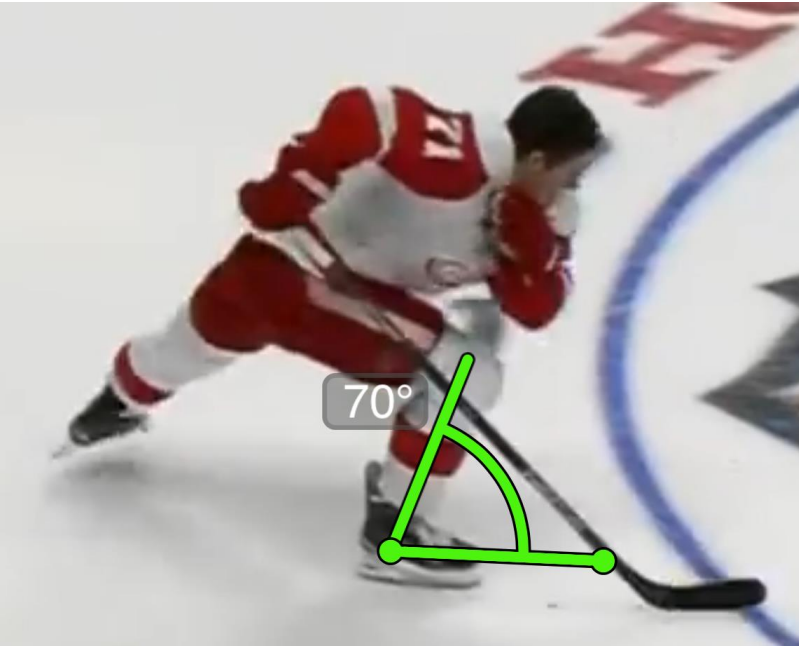
Optimal - 90°



At the beginning of the glide phase, the glide leg should have a knee flexion angle of 90°.

2 – SSG Phase Dorsiflexion Angle

Optimal - 70°



At the beginning of the glide phase, the glide leg ankle should have a dorsiflexion angle of 70°.

3 – SSG Phase Knee Alignment

Optimal – Knee-Hip-Shoulder



The propulsion skate should be recovered back onto the ice in line with the knee, hip and shoulder.

4 – DSP Phase Maximum Hip Abduction Angle

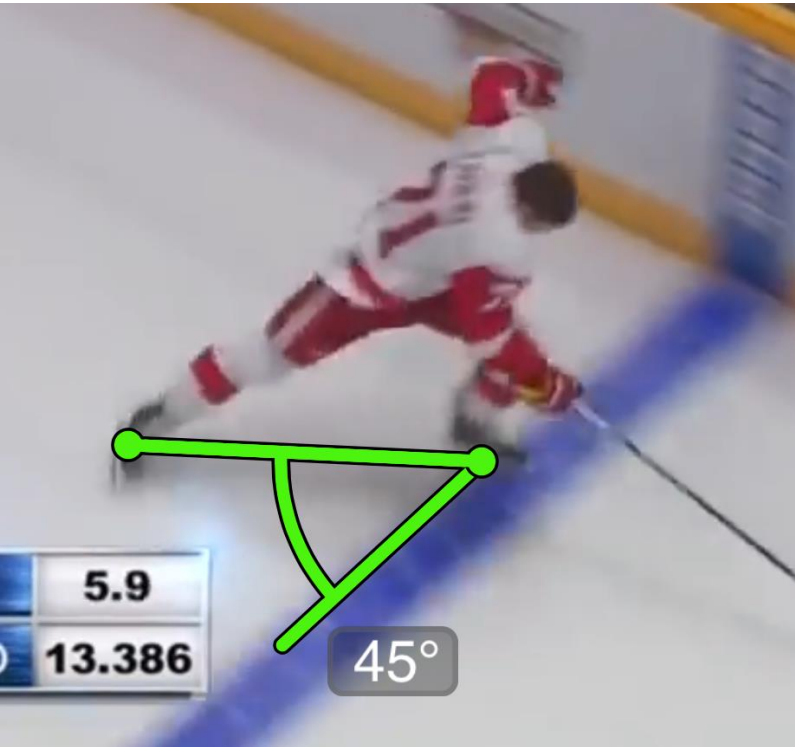
Optimal - 45°



The maximum hip abduction angle of the propulsion leg at the end of the DSP Phase should be 45°.

5 – DSP Phase Maximum Hip Extension Angle

Optimal - 45°



The maximum hip extension angle of the propulsion leg at the end of the DSP Phase should be 45° to the posterior side of the coronal plane.

6 – DSP Phase Maximum Knee Extension Angle

Optimal - 170°



The maximum knee extension angle of the propulsion leg at the end of the DSP Phase should be 170°. The power range of the knee is between 130° and 170°.

7 – DSP Phase Maximum Plantarflexion Angle

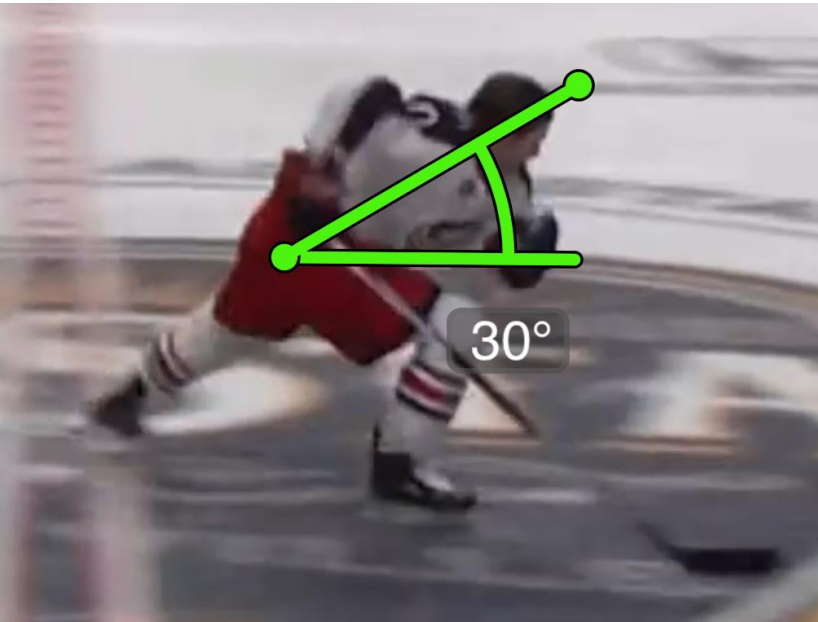
Optimal - 110°



At the end of the DSP Phase the ankle plantarflexion angle should 110°.

8 – Torso Forward Lean Angle

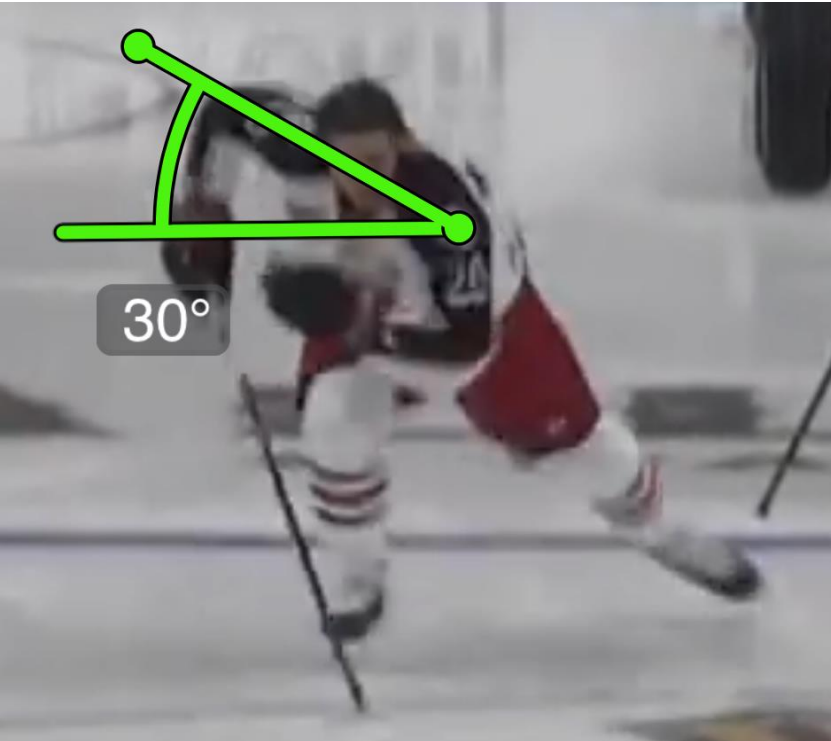
Optimal - 30° to 45°



The torso forward lean angle should be between 30° and 45° above a plane parallel to the ice and should remain constant throughout all three phases of the stride.

9 – DSP Phase Maximum Shoulder Rotation Angle

Optimal - 30°



At the end of the DSP Phase the optimal maximum shoulder rotation angle (about the coronal plane) should be 30°.

10 – DSP Phase Maximum Shoulder Abduction



Image 1 and 2 show shoulder abduction approaching 90° in both the stick and non-stick sides. Image 3 shows the upper arm of the abducted shoulder in line with the shoulders not behind them. Note the bend in the stick-side elbow in 2 to keep the stick in a good hockey position.

11 – DSP Phase Maximum Shoulder Adduction



Image 1 shows the shoulder fully adducted with the non-stick hand and lower arm directly opposed to the propulsion leg. Image 2 shows a similar action with the stick arm with the exception that the hand is further from the body to keep the stick in a better hockey position. Image 3 shows the hand of the adducted shoulder in line with the skate, knee, hip and shoulder of the glide skate.