# Stride Analysis for T1 (60m practice)

Post-Finish Line

Speed Maintenance Phase

Start Phase

In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics derived from the graph

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | - 0.007 seconds per stride | Average | - 0.001 seconds per stride | Average |
| GCT Mean | 0.157 seconds | Average | 0.128 seconds | Longer than Average |
| AT Rate of Change | 0.004 seconds per stride | Less than Average | 0.002 seconds per stride | More than Average |
| AT Mean | 0.311 seconds | Average | 0.334 seconds | Shorter than Average |
| TST Rate of Change | - 0.003 seconds per stride | Average | 0.001 seconds per stride | Less than Average |
| TST Mean | 0.469 seconds | Average | 0.462 seconds | Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 2 other athletes I monitored over 60m.

# Comments

1. You had the slowest ground contact time for the maintenance phase, however this was balanced by a shorter air time, this could imply you are hitting the ground too early in your stride pattern.
2. You had the greatest variation in air time for the first two strides, which could indicate a weak start.

# Stride Analysis for T2 (12.27s, 100m)

Post-Finish Line

Start Phase



Speed Maintenance Phase

In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics Derived From the Graph

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | -0.004 seconds per stride | Less than average | 0.000 seconds per stride | Average |
| GCT Mean | 0.130 seconds | Average | 0.106 seconds | Average |
| AT Rate of Change | 0.004 seconds per stride | More than average | 0.001 seconds per stride | Average |
| AT Mean | 0.289 seconds | Shorter than Average | 0.332 seconds | Average |
| TST Rate of Change | 0.000 seconds per stride | Average | 0.001 seconds per stride | Average |
| TST Mean | 0.419 seconds | Average | 0.438 seconds | Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 3 other athletes I monitored over 100m.

# Comments

1. For your maintenance phase, you were very similar to the fastest athlete I measured, and you and him had the same start phase length, however you had shorter air time, which seems to indicate a weaker start, from the data I have gathered so far.

# Stride Analysis for T3 (12.91s, 100m)

Start Phase

Post-Finish Line

Speed Maintenance Phase



In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time (GCT) respectively, the purple and green circles represent the left and right foot air time (AT) respectively, and the black circles represent the total stride time (TST).

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics Derived From the Graph

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | -0.013 seconds per stride | More than average | 0.000 seconds per stride | Average |
| GCT Mean | 0.166 seconds | Longer than average | 0.125 seconds | More than average |
| AT Rate of Change | 0.006 seconds per stride | More than average | 0.001 seconds per stride | Average |
| AT Mean | 0.333 seconds | Longer than average | 0.378 seconds | More than average |
| TST Rate of Change | -0.006 seconds per stride | More than average | 0.001 seconds per stride | Average |
| TST Mean | 0.500 seconds | Longer than average | 0.505 seconds | More than average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 3 other athletes I monitored over 100m.

# Comments

1. You had much longer times for each of your statistics, however this is mostly due to your height, you were much taller than the other athletes, leading to a longer stride, and hence longer stride times.
2. You had one of the shorter starts, indicating you quickly got up to speed. You’re rate of changes for the start phase were considerably higher than the others, which would imply a greater level of power.

# Stride Analysis for T4 (22.60s, 200m)

Start Phase

Post-Finish Line



Speed Maintenance Phase

In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics derived from the graph (to 3 decimal places)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | - 0.005 seconds per stride | Average | 0.000 seconds per stride | Average |
| GCT Mean | 0.147 seconds | Longer than Average | 0.125 seconds | Longer than Average |
| AT Rate of Change | 0.004 seconds per stride | Average | 0.001 seconds per stride | Average |
| AT Mean | 0.310 seconds | Average | 0.355 seconds | Shorter than Average |
| TST Rate of Change | - 0.001 seconds per stride | Average | 0.001 seconds per stride | Average |
| TST Mean | 0.456 seconds | Average | 0.480 seconds | Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 3 other athletes I monitored over 200m.

# Comments

1. You were two seconds faster than any of the other athletes I monitored for the 200m, however you also had the slowest ground contact, but the main difference between you and the other athletes is that you took roughly 90 strides, whilst they took closer to 100.
2. At times in the race, such as strides 60-70 you seem to have a quicker GCT with your left foot, this is possibly due to an imbalance of power in your legs.

# Stride Analysis for T5 (11.92s, 100m)

Post-Finish Line

Start Phase



Speed Maintenance Phase

In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics Derived From the Graph

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | - 0.004 seconds per stride | Less than Average | 0.000 seconds per stride | Average |
| GCT Mean | 0.120 seconds | Faster than Average | 0.103 seconds | Average |
| AT Rate of Change | 0.002 seconds per stride | Average | 0.001 seconds per stride | Average |
| AT Mean | 0.300 seconds | Average | 0.337 seconds | Average |
| TST Rate of Change | - 0.002 seconds per stride | Average | 0.001 seconds per stride | Average |
| TST Mean | 0.420 seconds | Average | 0.440 seconds | Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 3 other athletes I monitored over 100m.

# Comments

1. You were the fastest athlete I monitored over 100m, and it seems that in terms of these statistics you were almost entirely the average, the main difference being that you’re start phase was the longest measured, but also had the shallowest gradient for the ground contact time.

# Stride Analysis for T6 (60m practice)

Post-Finish Line

Speed Maintenance Phase

Start Phase



In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics derived from the graph (to 3 decimal places)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | -0.004 seconds per stride | Less than average | 0.000 seconds per stride | Average |
| GCT Mean | 0.144 seconds | Shorter than average | 0.122 seconds | Average |
| AT Rate of Change | 0.004 seconds per stride | Average | 0.002 seconds per stride | Average |
| AT Mean | 0.330 seconds | Longer than Average | 0.369 seconds | Longer than Average |
| TST Rate of Change | 0.000 seconds per stride | Less than Average | 0.002 seconds per stride | More than Average |
| TST Mean | 0.474 seconds | Longer than Average | 0.491 seconds | Longer than Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 2 other athletes I monitored over 60m.

# Comments

1. You had the longest total stride time, although you used less strides than the other athletes, which balanced it out.
2. You had the longest start phase, your ground contact time decreases to its minimum much slower than the other athletes, so my advice would be to work on accelerating at the start quicker.

# Stride Analysis for T7 (24.53s, 200m)

Start Phase

Post-Finish Line



Speed Maintenance Phase

In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics derived from the graph (to 3 decimal places)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | - 0.007 seconds per stride | More than Average | 0.000 seconds per stride | Average |
| GCT Mean | 0.140 seconds | Shorter than Average | 0.121 seconds | Average |
| AT Rate of Change | 0.006 seconds per stride | Average | 0.001 seconds per stride | Average |
| AT Mean | 0.301 seconds | Average | 0.371 seconds | Longer than average |
| TST Rate of Change | - 0.001 seconds per stride | Average | 0.001 seconds per stride | Average |
| TST Mean | 0.441 seconds | Average | 0.492 seconds | Longer than average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 3 other athletes I monitored over 200m.

# Comments

1. You had one of the shortest starts of the athletes, but as you can see at the start of the maintenance phase you have a very noisy ground contact pattern, implying maybe that you stumbled or lost balance on the bend.

# Stride Analysis for T8 (24.39s, 200m)

Start Phase

Post-Finish Line



Speed Maintenance Phase

In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics derived from the graph (to 3 decimal places)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | - 0.006 seconds per stride | Average | 0.000 seconds per stride | Average |
| GCT Mean | 0.145 seconds | Average | 0.122 seconds | Average |
| AT Rate of Change | 0.005 seconds per stride | Average | 0.001 seconds per stride | Average |
| AT Mean | 0.311 seconds | Average | 0.361 seconds | Average |
| TST Rate of Change | - 0.001 seconds per stride | Average | 0.001 seconds per stride | Average |
| TST Mean | 0.456 seconds | Average | 0.483 seconds | Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 3 other athletes I monitored over 200m.

# Comments

1. You achieved the average time I monitored for the 200m, and that is reflected in all your statistics. It seems for strides 20-35 you possibly lost balance or stumbled on the bend, due to the increase in noise in total stride time.

# Stride Analysis for T9 (60m practice)

Post-Finish Line

Start Phase



Speed Maintenance Phase

In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics derived from the graph (to 3 decimal places)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | -0.009 seconds per stride | More than Average | 0.000 seconds per stride | Average |
| GCT Mean | 0.153 seconds | Average | 0.117 seconds | Faster than Average |
| AT Rate of Change | 0.006 seconds per stride | More than Average | 0.002 seconds per stride | Average |
| AT Mean | 0.313 seconds | Average | 0.345 seconds | Average |
| TST Rate of Change | -0.004 seconds per stride | Average | 0.002 seconds per stride | Average |
| TST Mean | 0.466 seconds | Average | 0.462 seconds | Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 2 other athletes I monitored over 60m.

# Comments

1. You had the shortest ground contact time, but slightly longer air time, so you’re total stride time was much the same as the average.
2. You had the shortest start phase, reflected in your rate of change for ground contact and air time. From what I’ve seen from people so far, a shallower gradient in air time reflects a better start.

# Stride Analyis for T2 (25.13s, 200m)

Start Phase

Speed Maintenance Phase

Post-Finish Line



In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics derived from the graph (to 3 decimal places)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | - 0.005 seconds per stride | Average | 0.000 seconds per stride | Average |
| GCT Mean | 0.142 seconds | Average | 0.117 seconds | Shorter than Average |
| AT Rate of Change | 0.007 seconds per stride | Average | 0.000 seconds per stride | Less than Average |
| AT Mean | 0.295 seconds | Average | 0.352 seconds | Average |
| TST Rate of Change | 0.002 seconds per stride | More than Average | 0.000 seconds per stride | Less than Average |
| TST Mean | 0.437 seconds | Shorter than Average | 0.469 seconds | Shorter then Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 3 other athletes I monitored over 200m.

# Comments

1. You had a longer stride time for your 200m than your 100m, which is to be expected, and it was still much less than the other athletes.
2. You seem to have very uneven right and left legs as you come of the bend for strides 30-70. This could be due to an imbalance of power, and is mildly visible in your 100m as well.

# Stride Analyis for T10 (12.98s, 100m)

Start Phase

Post-Finish Line



Speed Maintenance Phase

In the above graph, the blue vertical lines separate the phases of the run. The horizontal blue lines represent the lines of best fit for the total stride time, ground contact time and air time for the start and maintenances phases.

The blue and red circles represent the left foot and right foot ground contact time respectively, the purple and green circles represent the left and right foot air time respectively, and the black circles represent the total stride time.

The picture below the graph shows what the terms contact time and air time mean, with the coloured bars the various stages, where the colours are labelled in the same way as the graph.

# Statistics derived from the graph (to 3 decimal places)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Start Phase | | Maintenance Phase | |
| GCT Rate of Change | - 0.007 seconds per stride | More than Average | 0.000 seconds per stride | Average |
| GCT Mean | 0.129 seconds | Average | 0.109 seconds | Average |
| AT Rate of Change | 0.000 seconds per stride | Less than Average | 0.002 seconds per stride | More than Average |
| AT Mean | 0.293 seconds | Average | 0.339 seconds | Average |
| TST Rate of Change | - 0.007 seconds per stride | More than Average | 0.002 seconds per stride | More than Average |
| TST Mean | 0.422 seconds | Average | 0.448 seconds | Average |

In this table the light grey column is the actual value from the graph, and the dark grey column states how different it is from the 3 other athletes I monitored over 100m.

# Comments

1. Your total stride time was on par with the other athletes, however you had the slowest time of the 4 athletes, and this seems mostly due high rate of change of stride time, which implies you were slowing down throughout the race.
2. Whilst I haven’t investigated what makes a good start phase, you seem to have what I would expect from a good start, slow ground contact time to achieve maximum drive.