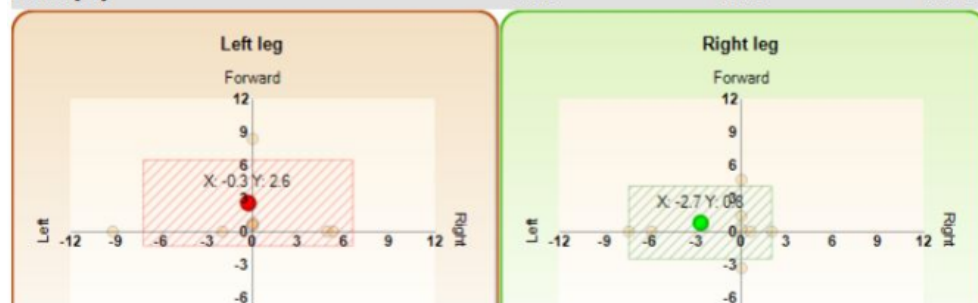# Drift Protocol

The Drift Protocol allows us to see where any imbalances found in the Sprint Test are coming from. In a series of one-legged jumps, the athlete is asked to jump as high and as fast as possible in place. This shows us their power, execution of power (ground contact time), and dynamic balance control (size of the shaded area).

Drift Protocol

	L	R	Delta%
Average height [in]	14.6	14.7	-0.5%
Average power[W/Kg]	36.04	35.75	0.8%
Average contact time[s]	0.307	0.321	-4.3%
Average flight time[s]	0.550	0.551	-0.2%
Average LEFT/RIGHT drift[in]	-0.3	-2.7	-942.3%
Average FRONT/BACK drift[in]	2.6	0.8	70.7%
Standard deviation LEFT/RIGHT drift[in]	6.9	4.7	31.5%
Standard deviation FRONT/BACK drift[in]	3.9	3.3	14.8%
Surface[in²]	270.0	157.6	41.6%

Left leg — X: -0.3 Y: 2.6

Right leg — X: -2.7 Y: 0.8

Interpreting the Drift Protocol

A balanced athlete will have a low power differential, low contact times (with a low differential), and would have very small shaded areas (lands in place each time). With good training, we want to see power increase, ground contact time decrease, and the size of the shaded area get smaller and smaller. If it is found that the athlete has a dominant leg in the first portion of testing, that imbalance will be linked to a deficiency in one of these three areas.

In This Example

Here, the athlete seems to have almost equal power with only 0.8% more power on his left side. We also see that the athlete spends 4.3% less time time on the ground on his left than his right. Now we ask ourselves, if our athlete has more power on his left, and is able to execute that power better on his left, then how can he have such an inefficient acceleration curve showing deficit on the left side? Moving onto the shaded area, we see that our athlete is 41.6% more unstable on his left leg than on his right – this is extremely large imbalance that is manifesting in markedly inefficient performance of his left leg while running.

Each of these parameters can be improved with training:

Power – Strength Training
Contact Time – Plyometric Training
Stability – Balance Training

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