JOHN SHORTT

2014-04-30 11:14

BIKE FIT STUDIO

by Life-Cycle Ltd.

RIDER

John Shortt
Age: 57
Male
john.shortt@cycle.ie

BIKE

MAKE/MODEL: BMC, Road Racer SL02
SIZE: 54
YEAR: 2012
TYPE: Road

SITE

Bike Fit Studio
Ballyboughal Industrial Premises Ballyboughal
Dublin, Leinster IRL
Ireland
+353 1 843 3712
www.bikefitstudio.ie

FITTER

Administrator
Admin

SUMMARY OF SESSION

ASSESSMENT REPORT

NOTES

GOALS

INJURIES

STANDING POSTURE

Lateral Posture	**Neutral**	Rotated Left	Rotated Right
Notes:			
Frontal Posture	**Neutral**	Sway Back	Flat Back
Notes:			

STANDING FOOT TYPE

Arch	Low	**Medium**	High
Notes:			
Rear Foot	**Neutral**	Pronated	Supinated
Notes:			

WALKING

Neutral	**Externally Rotated**	Internally Rotated
Notes:		

FORWARD BEND

Flexibility	Excellent	**Adequate**	Compromised
Notes:			
Symmetry	**Neutral**	Rotated Right	Rotated Left
Notes:			

SQUAT

Stability	Excellent	**Adequate**	Compromised
Notes:			
Knee Alignment	**Neutral**	Valgus	Varus
Notes:			

LEFT LEG SQUAT

Stability	Excellent	**Adequate**	Compromised
Notes:			
Knee Alignment	**Neutral**	Valgus	Varus
Notes:			
Foot Arch Stability	**Neutral**		Collapsed
Notes:			

RIGHT LEG SQUAT

Stability	Excellent	**Adequate**	Compromised
Notes:			
Knee Alignment	**Neutral**	Valgus	Varus
Notes:			
Foot Arch Stability	**Neutral**		Collapsed
Notes:			

SHOULDER MOBILITY

Excellent	Adequate	Compromised
Notes:		

LEG LENGTH

No Discrepancy	Left Leg Longer	**Right Leg Longer**
Notes: 5mm max		

LEFT HAMSTRING FLEXIBILITY

Excellent	Adequate	**Compromised**
Notes:		

RIGHT HAMSTRING FLEXIBILITY

Excellent	**Adequate**	Compromised
Notes:		

LEFT HIP ROM

Left Hip Flexion	Excellent	Adequate	Compromised
	Notes:		
Left Hip Internal Rotation	Excellent	Adequate	Compromised
	Notes:		
Left Hip External Rotation	Excellent	Adequate	Compromised
	Notes:		

RIGHT HIP ROM

Right Hip Flexion	Excellent	Adequate	Compromised
	Notes:		
Right Hip Internal Rotation	Excellent	Adequate	Compromised
	Notes:		
Right Hip External Rotation	Excellent	Adequate	Compromised
	Notes:		

LEFT HIP STRENGTH

	Excellent	Adequate	Compromised
	Notes:		

RIGHT HIP STRENGTH

	Excellent	Adequate	Compromised
	Notes:		

ZIN REPORT: FINAL ZIN

2012, 54 - BMC, Road Racer SL02 (Road)

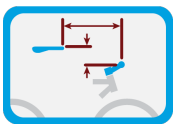
Notes:

COMPONENTS

STEM	SPACER STACK	CRANK LENGTH	PEDALS	SADDLE	BARS	SHOES
-6 ° x 100 mm	25 mm	172.5 mm	look,keo	fizik,antares	scor mk2,	shimano,

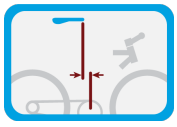
MEASUREMENTS & ANGLES

Saddle Height: 707 mm
BB to center of saddle profile

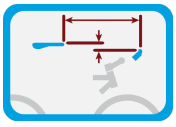


Handlebar Reach: 506 mm
tip of saddle horiz to bar top

Handlebar Drop: -59 mm
cen of saddle profile to bar top grip, — denotes bar below saddle



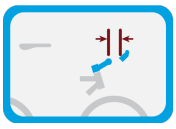
Saddle Setback: -43 mm
BB horiz to front tip of saddle grip, — denotes saddle behind BB



Grip Reach: 674 mm
tip of saddle horiz to front end of grip

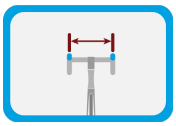
Grip Drop: -43 mm
cen of saddle to front end of grip, — denotes grip lower

Saddle Angle: 0 °
angle of saddle to horizon grip, — denotes nose down

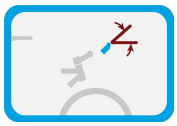


Bar Reach: 70 mm
center of bar to back end of grip

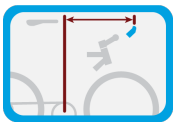
Eff. Seat Tube Angle: 76 °
BB to center of saddle profile



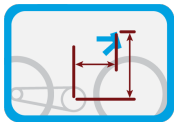
Grip Width: 422 mm
grip center to center



Grip Angle: 17 °
angle to horizon + denotes front end up

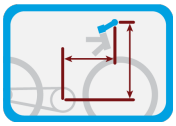


BB to Grip Reach: 630 mm
BB to front end of grip



Frame Stack: 545 mm

Frame Reach: 387 mm
BB to center of headtube top



Handlebar Stack: 613 mm

Handlebar Reach: 463 mm
BB to center of bar

FIT REPORT: FINAL FIT

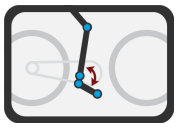
BMC, Road Racer SL02

Power: Unknown Watts

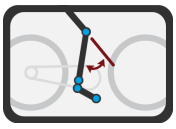
Left Notes: saddle

Right Notes: saddle

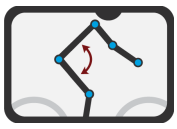
FIT ANGLES



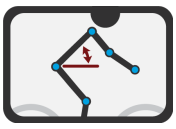
L		R
78 °	Ankle Angle Min	76 °
96 °	Ankle Angle Max	85 °
18 °	Ankle Angle Range	9 °



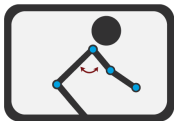
L		R
109 °	Knee Angle Flexion	115 °
34 °	Knee Angle Extension	39 °
75 °	Knee Angle Range	77 °



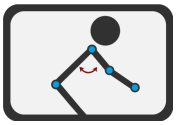
62 °	Hip Angle Closed	59 °
111 °	Hip Angle Open	111 °
48 °	Hip Angle Range	52 °



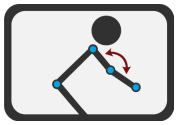
43 °	Back From Level	45 °



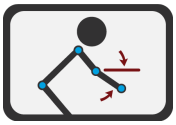
87 °	Hip-Shoulder-Wrist	87 °



78 °	Hip-Shoulder-Elbow	71 °

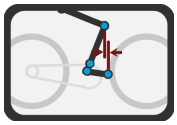


156 °	Elbow Angle	141 °

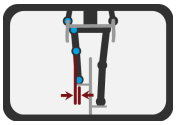


-38 °	Forearm From Level	-27 °

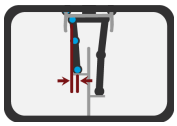
FIT ALIGNMENT



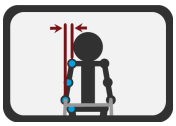
L		R
-5 mm	Knee to Foot Forward	-5 mm



L		R
-14 mm	Knee to Foot Lateral	-32 mm

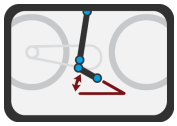


3 mm	Hip to Foot Lateral	-14 mm

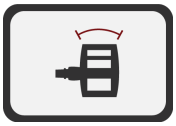


44 mm	Shuolder to Wrist Lateral	57 mm

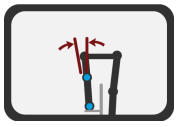
FIT MOVEMENT



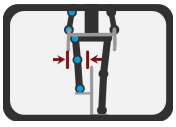
L		R
-26 °	Foot from Level Mean	-23 °



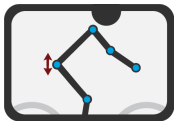
L		R
-11 °	Foot Float Angle Min	-8 °
-10 °	Foot Float Angle Mean	-7 °
-10 °	Foot Float Angle Max	-6 °



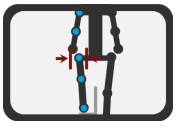
4 °	Knee Travel Tilt	2 °



33 mm	Knee Lateral Travel	16 mm

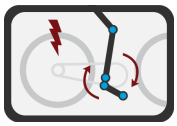


63 mm	Hip Vertical Travel	61 mm



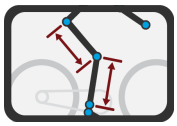
16 mm	Hip Lateral Travel	21 mm

WORKLOAD

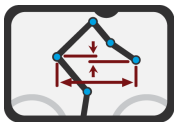


L		R
101	Cadence Mean	102
116	Cadence Maximum	116

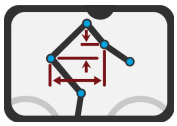
ANTHROPOMETRICS



L		R
424 mm	Thigh Length	410 mm
388 mm	Shin Length	390 mm



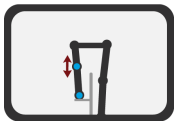
-110 mm	Hip—Wrist Vertical	-85 mm
728 mm	Hip—Wrist Forward	723 mm



53 mm	Hip—Elbow Vertical	38 mm
520 mm	Hip—Elbow Forward	488 mm

MARKER PATH

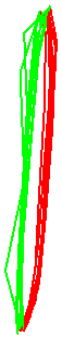
Note: Marker paths viewed from the front will be on the opposite side of the report. The paths representing the right side of the body will be shown on the left and vice versa.



Front View of Right Knee Path:

Bike Frame

Front View of Left Knee Path:

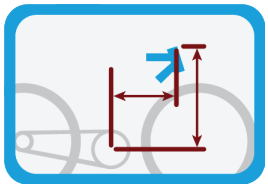
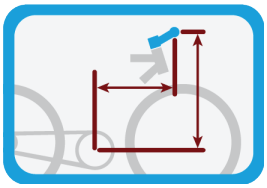
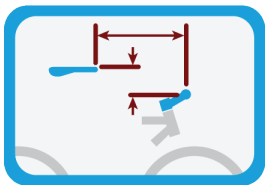
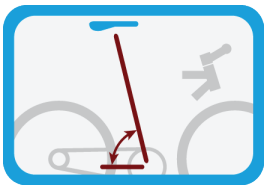
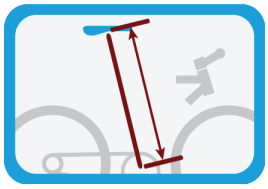
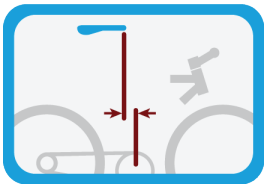
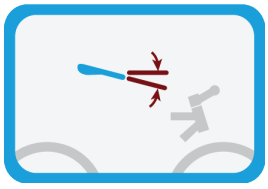
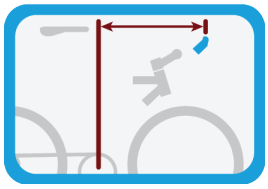
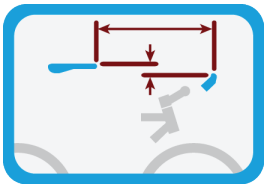
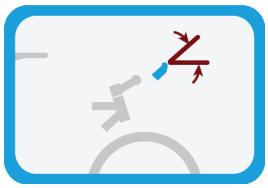
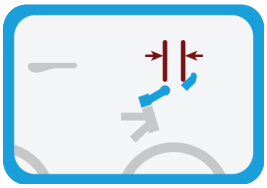


VIEWS

BEFORE

AFTER ADJUST

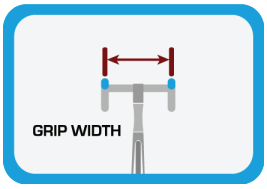
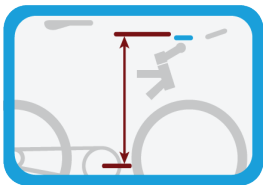
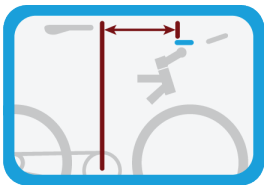
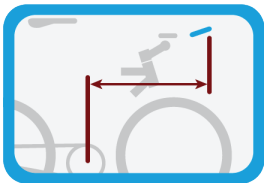
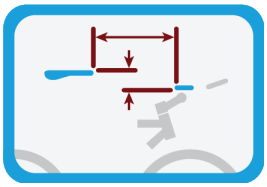
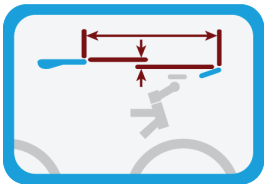
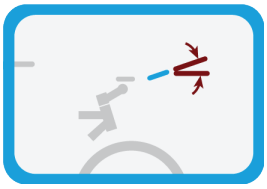
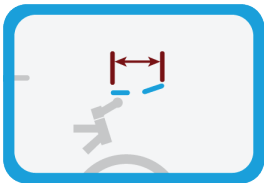
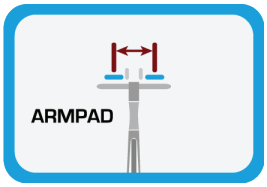
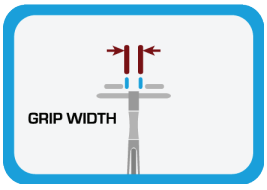
BICYCLE MEASUREMENT DEFINITIONS

KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
Common Bike Definitions (used on all reports)			
	**Frame Stack and Reach** The horizontal and vertical distance from the center of the bottom bracket to the center of the top of the headtube.		**Handlebar Stack & Reach** The horizontal and vertical distance from the center of the bottom bracket to the center of the handlebar.
	**Handlebar Reach** The horizontal distance from the front tip of the saddle to the center of the handlebar. **Handlebar Drop** The vertical distance from the center point of the saddle profile to the top of the handlebar. A negative value signifies the handlebar being lower than the saddle.		**Effective Seat Tube Angle** The angle between horizontal and the saddle height axis defined in saddle height.
	**Saddle Height** The distance from the center of the bottom bracket to the horizontal midpoint of the saddle profile.		**Saddle Setback** The horizontal distance from the front tip of the saddle to the center of the bottom bracket. A negative value signifies the saddle being rearward of the bottom bracket.
	**Saddle Angle** The angle between horizontal and the line tangent to the top of the saddle. A negative value signifies the nose of the saddle being lower than the rear of the saddle.		
Road Bike Definitions (used on road reports)			
	**BB to Grip Reach** The horizontal distance from the center of the bottom bracket to the frontmost point of the grip.		**Grip Reach** The horizontal distance from the front tip of the saddle to the frontmost point of the grip. **Grip Drop** The vertical distance from the center point of the saddle profile to the frontmost point of the grip. A negative value signifies the grip being lower than the saddle.
	**Grip Angle** The angle between horizontal and the best fit line to the traced grip contour. A positive value signifies the front of the grip being higher than the rear.		**Bar Reach** The horizontal distance from the top of the handlebar to the rearmost point of the grip.

RETÜL

June 2013

BICYCLE MEASUREMENT DEFINITIONS

KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
	**Grip Width** The 3D distance between the midpoints of the grip contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the midpoint of the single traced grip contour.		
Tri Bike Definitions (used on tri/tt reports)			
	**Arm Pad Stack BB** The vertical distance from the center of the bottom bracket to the top of the arm pad.		**Arm Pad Reach BB** The horizontal distance from the center of the bottom bracket to the back of the arm pad.
	**BB to Grip Reach** The horizontal distance from the center of the bottom bracket to the frontmost point of the grip.		**Arm Pad Reach** The horizontal distance from the front tip of the saddle to the back of the arm pad. **Arm Pad Drop** The vertical distance from the center point of the saddle profile to the top of the arm pad. A negative value signifies the arm pad being lower than the saddle.
	**Grip Reach** The horizontal distance from the front tip of the saddle to the frontmost point of the grip. **Grip Drop** The vertical distance from the center point of the saddle profile to the frontmost point of the grip. A negative value signifies the grip being lower than the saddle.		**Grip Angle** The angle between horizontal and the best fit line to the traced grip contour. A positive value signifies the front of the grip being higher than the rear.
	**Arm Pad to Grip Reach** The horizontal distance from the back of the arm pad to the frontmost point of the grip.		**Arm Pad Width** The 3D distance between the midpoints of the arm pad contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the midpoint of the single traced arm pad contour.
	**Grip Width** The 3D distance between the midpoints of the grip contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the midpoint of the single traced grip contour.		

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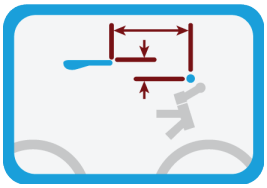
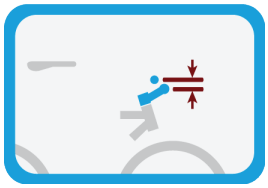
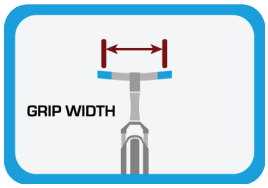
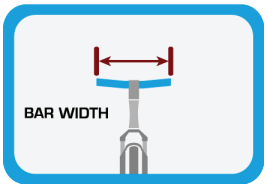
KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
Mountain Bike Definitions (used on mountain reports)			
	**Grip Reach** The horizontal distance from the front tip of the saddle to the midpoint of the grip contour. **Grip Drop** The vertical distance from the center point of the saddle profile to the midpoint of the grip contour. A negative value signifies the grip being lower than the saddle.		**Bar Rise** The vertical distance from the top of the handlebar to the midpoint of the grip contour.
	**Bar Sweep Angle** The top view angle between the handlebar clamp axis and the line from the center of the handlebar to the midpoint of the grip contour.		**Grip Width** The 3D distance between the midpoints of the grip contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the midpoint of the single traced grip contour.
	**Bar Width** The 3D distance between the widest endpoints of the grip contours if both grips traced. Otherwise, two times the distance perpendicular from the plane of the bike to the widest endpoint of the single traced grip contour.		

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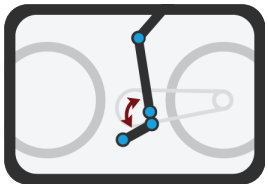
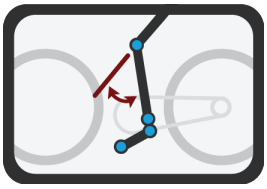
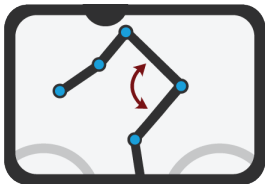
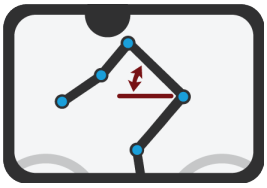
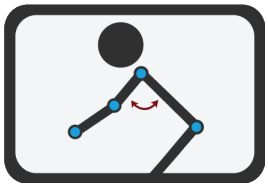
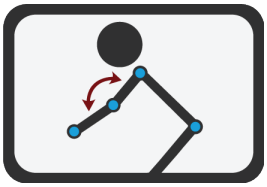
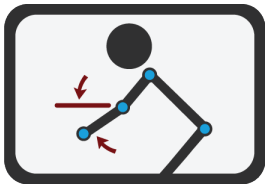
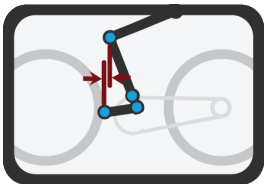
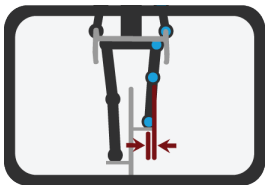
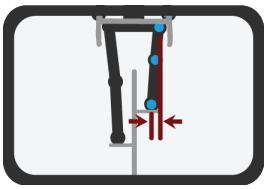
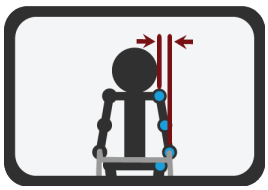
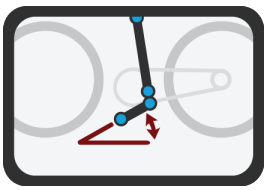
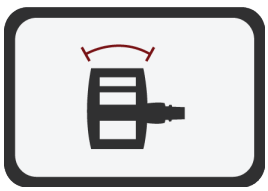
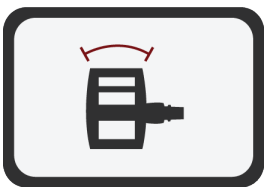
KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
	**Ankle Maximum & Minimum** The average of each stroke's maximum and minimum 3D included angle defined by the knee-ankle line and the heel-foot line. **Ankle Range** The average of each stroke's difference between the maximum and minimum 3D included angle defined by the knee, ankle, and foot.		**Knee Angle Flexion & Extension** The average of each stroke's minimum and maximum 3D included angle defined by the hip, knee, and ankle. Alternate option is 180 minus the included angle. **Knee Angle Range** The average of each stroke's difference between the maximum and minimum 3D angle defined by the hip, knee, and ankle.
	**Hip Angle Closed & Open** The average of each stroke's minimum and maximum 3D included angle defined by the knee, hip, and shoulder. **Hip Angle Range** The average of each stroke's difference between the maximum and minimum 3D included angle defined by the knee, hip, and shoulder.		**Back from Level** The average of the 3D acute included angle defined by the hip to shoulder line segment and the horizon of every body measurement index.
	**Hip-Shoulder-Wrist/Elbow** The average of the 3D included angle defined by the hip, shoulder, and elbow or wrist of each body measurement index.		**Elbow Angle** The average of the 3D included angle defined by the shoulder, elbow, and wrist of each body measurement index.
	**Forearm from Level** The average of the 3D acute included angle defined by the elbow to wrist line segment and the horizon of each body measurement index where positive angle represent the wrist higher than the elbow.		**Knee to Foot Forward** The average of each stroke's difference between the horizontal positions of the knee and foot when the foot is in the forwardmost position where a positive number represents the knee being more forward then the foot.
	**Knee to Foot Lateral** The difference of the average lateral position of the knee and foot where a negative number represents the foot being further from the plane of the bicycle than the knee.		**Hip to Foot Lateral** The average of the distances between the lateral position of the hip and foot of each body measurement index where a negative number represents the hip being further from the plane of the bicycle than the foot.
	**Shoulder to Wrist Lateral** The distance between the average lateral position of the shoulder and wrist where a negative number represents the wrist being closer to the plane of the bicycle than the shoulder.		**Foot from Level Mean** The average of the acute included angle defined by the foot to heel line segment and the horizon of every body measurement index where a negative angle represents the foot lower than the heel.
	**Foot Float Maximum and Minimum** The minimum or maximum acute included angle defined by the foot to heel line segment and the bike plane of every body measurement index where a negative angle represents the heel being closer to the plane of the bicycle than the foot.		**Foot Float Mean** The average acute included angle defined by the foot to heel line segment and the bike plane of every body measurement index where a negative angle represents the heel being closer to the plane of the bicycle than the foot.

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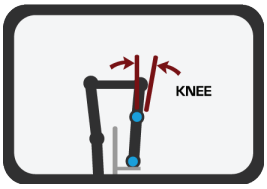
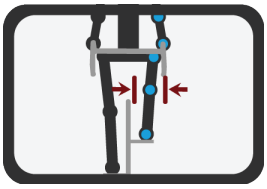
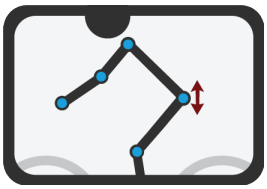
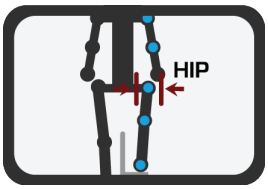
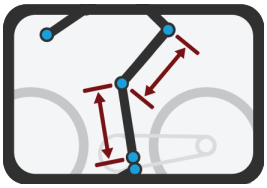
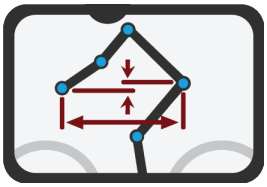
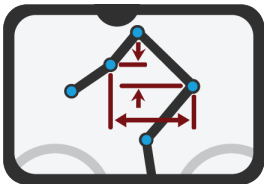
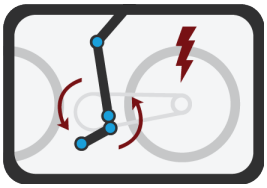
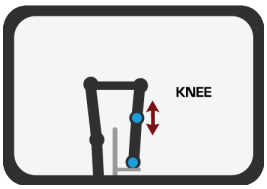
KEY	DESCRIPTION/DEFINITION	KEY	DESCRIPTION/DEFINITION
	**Knee Travel Tilt** The acute included angle in the frontal plane between the best fit axis of the points of the knee during the recording and the vertical axis where a positive number represents the knee further from the plane of the bike at the top of the stroke.		**Knee Lateral Travel** The average of each stroke's difference between the maximum and minimum lateral position of the knee.
	**Hip Vertical Travel** The average of each stroke's difference between the maximum and minimum vertical position of the hip.		**Hip Lateral Travel** The average of each stroke's difference between the maximum and minimum lateral position of the hip.
	**Thigh & Shin Length** The average of the 3D distances between the hip and knee or knee and ankle of each body measurement index.		**Hip to Wrist Vertical** The average of the differences of the vertical position of the hip and wrist of each body measurement index where a positive number represents the wrist being higher than the hip. **Hip to Wrist Forward** The average of the differences of the horizontal position of the hip and wrist of each body measurement index.
	**Hip to Elbow Vertical** The average of the differences of the vertical position of the hip and elbow of each body measurement index where a positive number represents the elbow being higher than the hip. **Hip to Elbow Forward** The average of the differences of the horizonal position of the hip and elbow of each body measurement index.		**Power Output** The average and maximum calculated power or user input power during the recording time. **Speed** The average and maximum calculated rear wheel speed during the recording time. **Cadence** The average and maximum calculated number of strokes per minute defined by the foot of every body measurement index.
	**Front View of Knee Path** A connected plot of the positions of the knee for each body measurement index viewed from in front of the bicycle. The plot is colored green during the downstroke and red during the upstroke. The blue bar represents the bike frame.		

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