

# Quintic Ball Roll®

The Launch Monitor for Putting...



		8 100 €	9 500 €	11 500 €	12 800 €
FEATURE DESCRIPTION		v2.4 (Ball Only)	v3.4	v4.4	v4.4 R
1	Recording speed of 360 FPS	✓	✓	✓	✓
2	Ability to save and reload summaries of up to 200 putts	✓	✓	✓	✓
3	Initial Ball Speed / Ball's initial launch angle	✓	✓	✓	✓
4	Ball spin characteristics: initial total spin and spin axis, the three components that make up total spin (forward/back, side, rifle), ability to edit features of 3D spin graphic	✓	✓	✓	✓
5	Time and distance to zero skid, ball speed at zero skid and the % drop in speed at zero skid	✓	✓	✓	✓
6	Ball's roll angle (displayed in a graph and a table), RPM and Vertical height for its initial 16 inches (20 inches when in Ball Only mode)	✓	✓	✓	✓
7	Ball's initial flight angle, displayed in a graph (including difference between that and launch angle)	✓	✓	✓	✓
8	The Ball's Surface interaction Period	✓	✓	✓	✓
9	The Ball's maximum height during Launch	✓	✓	✓	✓
10	Ball's First contact distance	✓	✓	✓	✓
11	Ball's initial speed and percentage drop in speed during the initial 16 inches (20 inches when in Ball Only mode)	✓	✓	✓	✓
12	Research Tab - Frame by frame ball data for 1 particular putt	✓	✓	✓	✓
13	Summary tab with numerical and graphical displays for all putts in the summary	✓	✓	✓	✓
14	Graphical display of average on all Summary graphs	✓	✓	✓	✓
15	Maximum, minimum, average, range and standard deviation of particular variables shown in summary	✓	✓	✓	✓
16	Display of Ball snail trail (ball outline at each frame) and ball composite over the first 16 inches (20 inches when in Ball Only mode)	✓	✓	✓	✓
17	Colour Scales for Launch Angle, Forward/Back Spin, Side Spin, Flight Launch/Angle Difference.	✓	✓	✓	✓
18	New educational images for Impact Ball Speed, Start of Forward Rotation, and Zero Skid.	✓	✓	✓	✓
19	Red roll line to indicate when the ball is rotating backwards and a Green line when it is rotating forwards.	✓	✓	✓	✓
20	Ability to display variable as 'Zero Skid' or 'True Roll' depending on your preferred terminology.	✓	✓	✓	✓
21	Choice of Stimp - new data for Rolling Distance, Putt Distance, Sliding % of Putt Distance, Rolling % of Putt Distance.	✓	✓	✓	✓
22	Ability to use 2nd Camera - so you can have a left and a right-hand camera to be plugged in at the same time and choose which one to use.	✓	✓	✓	✓
23	Ability to select which variables are colour-coded within the software. Allows player/coach to focus on certain variables without being distracted.	✓	✓	✓	✓
24	Improved ball tracking and ball marker tracking, for both indoor and outdoor mode.	✓	✓	✓	✓
25	Improved /smoother playback and 'Smoother Ball Test'	✓	✓	✓	✓
26	Ball Test displays 'Ball and Markers Found', 'Ball Found', 'Markers Not Found' or 'Ball Not Found' to help users adjust their setup.	✓	✓	✓	✓
27	Custom Summary Page - Ability to select which variables are displayed in the NEW CUSTOM Summary tab.	✓	✓	✓	✓
28	Second Average, allowing the user to compare the performance of two different putters, balls, or players.	✓	✓	✓	✓
29	QBR v2.4 - Summary includes over 20 variables, 4 summary graphs and 12 putts which can be viewed on each graph at any one time.	✓	✓	✓	✓
30	Club marker positions at every frame	X	✓	✓	✓
31	Impact Face Angle, Shaft Angle, Attack Angle, Lie Angle and Club Twist values	X	✓	✓	✓
32	Impact club speed, impact ratio and Face Rotation values	X	✓	✓	✓
33	Clubhead Speed and Acceleration profile before and after impact	X	✓	✓	✓
34	Clubhead Attack Angle profile Pre and Post impact, including low point position	X	✓	✓	✓
35	Address clubface angle, shaft angle and lie angle	X	✓	✓	✓
36	Difference between impact and address for the face, shaft and lie angle values	X	✓	✓	✓
37	Clubhead speed and acceleration pre and post impact (including immediately after impact) and % drop in speed at impact	X	✓	✓	✓
38	The projected direction of the ball relative to the impact face angle with an adjustable animation (push/pull) including push / pull table for holing putts between 2 and 20	X	✓	✓	✓
39	Graph showing Shaft Angle profile Pre and Post impact, including Pre to Post symmetry line and shaft deflection value	X	✓	✓	✓
40	Graph showing Lie Angle profile Pre and Post impact	X	✓	✓	✓
41	Graph showing Attack Angle profile Pre and Post impact, including a low point value, ie the position at which it occurred	X	✓	✓	✓
42	Graph showing Face Angle profile Pre and Post impact, including Pre to Post symmetry line	X	✓	✓	✓
43	Colour coding for Attack Angle and Face Rotation	X	✓	✓	✓
44	Colour Scales for Club Pre/Post-Impact Acceleration, Attack Angle, Face Angle, Lie Angle, and Club Twist. Any variable which has its own colour coding can now be clicked to display a scale. An arrow is displayed to help the golfer appreciate how close they are to striking the ideal putt.	X	✓	✓	✓
45	Face Angle at Low Point on Attack Angle graph	X	✓	✓	✓
46	Showing club twist image on club speed / acceleration graphs	X	✓	✓	✓
47	New Educational Images for Impact Club Speed, Shaft Angle, Pre/Post Impact Face Rotation, and Impact Ratio	X	✓	✓	✓
48	Range colour images for all Ranges in the Summary	X	✓	✓	✓
49	QBR v3.4 Summary includes over 30 variables, 5 summary graphs and 12 putts which can be viewed on each graph at any one time.	X	✓	✓	✓
50	Choice of recording speed at 720 FPS - all the same variables measured at a higher speed	X	X	✓	✓
51	New LIVE Club Feature - Ability to display live face, lie and shaft data for a Putter held in position. Also has the ability to select audio Biofeedback i.e. The software will "beep" when the club is inside/outside a chosen face, lie or shaft angle range.	X	X	✓	✓
52	Clubhead path throughout the impact area (Pre, Post & Impact)	X	X	✓	✓
53	Clubface angle relative to path throughout impact area - including animation showing face angle relative to path throughout impact area	X	X	✓	✓
54	Graphical display of all 3 components of spin RPM and total spin on the same graph, as well as a table showing RPM values for all 3 components of spin and total spin at every inch after impact (up to 16 inches or 20 in Ball Mode)	X	X	✓	✓
55	QBR v4.4 & v4.4R provides a more extensive and in-depth summary - over 50 variables, 12 summary graphs and 12 putts which can be viewed on each graph at any one	X	X	✓	✓
56	Educational Images for Path	X	X	✓	✓
57	Path at Low Point on Attack Angle graph	X	X	✓	✓
58	Colour coding for Impact Path	X	X	✓	✓
59	Choice of recording speed at 1080 FPS - all the same variables measured at a higher speed	X	X	X	✓
60	Ability to display 95% confidence intervals on selected summary graphs	X	X	X	✓
61	Second set of confidence intervals when using Second Average Function	X	X	X	✓



**STABILITY**



## Quintic Ball Roll®

*The Launch Monitor for Putting...*



FEATURE DESCRIPTION - Overhead Putt Tracker		TBD
		<b>v1.0</b>
1	Ball Start Direction (*) Angle relative to hole	✓
2	Ball Start Direction (*) Angle relative to target. The target is manually selected by the user / golfer	✓
3	Impact Ball Speed. Ball Speed is calculated frame by frame and presented / displayed in graphically form.	✓
4	Point of Zero Skid / True Roll	✓
5	Ball Speed at the point of Zero Skid / True Roll	✓
6	% Drop in Ball Speed at Zero Skid	✓
7	Ball Speed at Hole (Colour coded, Green, Amber, Red)	✓
8	Total Putt Distance	✓
9	Composite Image (Change the Step Size)	✓
10	Snail Trail ball image display / Trajectory of the path of the ball	✓
11	Final Ball Position X / Y : Final Distance from the hole	✓
12	Sliding Phase / Rolling Phase (Distance / %)	✓
13	Graphical display of all Ball Position X, Y	✓
14	Graphical display of all Ball Speed X, Y & Resultant Total	✓
15	Auto Save Function (On/Off)	✓
16	Summary tab with numerical and graphical displays for all putts in the summary	✓
17	Create PDF summary	✓
18	Second Average, allowing the user to compare the performance of two different putters, balls, slope, or players	✓
19	Save Ghost Putt - the balls trajectory is superimposed on the LIVE video image and data from current putt with side by side comparison	✓
20	Hole Type (Real or Ghost) Ghost - enables tracking of the golf ball until it comes to rest (or goes of the screen)	✓
21	Synchronisation with Quintic Ball Roll v2.4, v3.4, v4.4 & v4.4 Research - 1 click will capture the ball in both systems	✓
<b>FEATURE DESCRIPTION - Outdoor Accessory Pack</b>		<b>2 400 €</b>
1	Hardened Travel Case	✓
2	Purpose Built Outdoor LED Light	✓
3	2 Outdoor Batteries and 2 Chargers	✓
4	Camera Lens Sunlight Filter	✓
5	Quintic Black Towel	✓
<b>Quintic Ball Roll Accreditation Programme</b>		<b>800 € Annual Or 600 € monthly</b>
Clients enrolled on the Quintic Ball Roll Accreditation Programme are entitled to the following annual benefits:		✓
1	Free QBR Software Updates	✓
2	Exclusive access to regular QBR training webinars and the online QBR Level 1 & Level 2 certified instructor test.	✓
3	Complimentary online training session	✓
4	QBR System Upgrade Offers & Discounts, (Clients MUST be enrolled on QBRAP for minimum of 12 continuous months before qualifying for discounts)	✓
5	On-going Comprehensive User Support – Available via Email, Phone / Skype and Online Meeting	✓
6	One free delegate place on a QBR Workshop or Accreditation Day and additional places available at a discounted rate	✓
7	Option to have the details of your Accredited Centre* and Certified Instructors** included on the QBR 'Find an Expert'	✓
8	Complimentary toe and shaft stickers for 350 putter fittings - Available to order via email or telephone and sent via Royal Mail second class post or economy airmail	✓
9	Complimentary Golf Dots for 24 golf balls of your choice per annum - Available to order via email or telephone and sent via Royal Mail second class post or economy airmail	✓

\* A Quintic Ball Roll Accredited Centre is a client who owns a QBR System and is enrolled on the Quintic Ball Roll Accreditation Programme

\*\* A Certified Instructor is one who has passed the QBR Level 1 / Level 2 Online Test

The annual subscription for this programme is 800 EURO per annum or €600 by credit debit card. Clients have the option to pay this in a single instalment or in equal monthly instalments of €50 by Standing Order (UK only) or PayPal / TransferWise (Overseas)

QBRAP annual subscription increases by 80 EURO per annum (£5 per month) per additional software licence

Annual Premiums – Annual Premiums are payable upon enrolment and annually thereafter. Renewal premiums are invoiced 1 month prior to renewal

Monthly Payment - Clients paying by Standing Order, PayPal or TransferWise will be entitled to the full benefits of the programme on a rolling basis. Should monthly payments cease, Quintic will invoice the client for the full outstanding annual premium at that time

