



BILAN FONCTIONNEL DE LA CHEVILLE

Nom et prénom :	VILLANUEVA VARGAS GERMAN RAFAEL
Date de naissance :	07/04/1992
Sexe :	M
Taille :	200cm
Poids :	100kg
Côté opéré :	Gauche
Date de l'opération :	12/10/1996
Type d'intervention chirurgicale :	LOBOTISATION DE

Date du rapport : 01/07/2025

Date du test numero T1 : 30/06/2025

Cabinet Kinesithérapie SCP 9 bis - 9 bis Route de Launaguet, 31200 Toulouse
scp9bis@gmail.com - 05 61 57 13 13

Legende tableau	Bon	Moyen	Insuffisant
-----------------	-----	-------	-------------

Amplitudes articulaires	Membre sain T1	Membre opéré T1
Flexion Plantaire (°)	115	152
Flexion Dorsale - Test WBLT (cm)	98	64
Flexion Dorsale (°)	352.8	230.4

Périmètres	Membre sain T1	Membre opéré T1
Mollet (cm)	77	29
Sommet rotule +10(cm)	134	38
Sommet rotule +20(cm)	69	56

	T1
Test ALR-RSI	73/100

Tests et ratios de force isométrique

	Membre sain T1	Membre opéré T1	Asymétrie T1
Fmax releveurs (N)	115	33	-71%

	Membre sain T1	Membre opéré T1	Asymétrie T1
Fmax soleaire (N)	36	25	-31%

Ratio Everseurs / Inverseurs	Membre sain T1	Membre opéré T1	Asymétrie T1
FMax Everseurs (N)	29	25	-14%
FMax Inverseurs (N)	80	61	-24%
Ratio	0.36	0.41	

Tests de sauts verticaux

Test Squat Jump Bipodal	Hauteur de saut (cm)	RFDMax membre sain (N.s)	RFDMax membre opéré (N.s)	Asymétrie RFDMax
T1	147	12	112	833%

Test CMJ Bipodal	Hauteur de saut (cm)	RSI Modifié	RFD Deceleration membre sain (N.s-1)	RFD Deceleration membre opéré (N.s-1)	Asymétrie RFD Deceleration
T1	162	810.00	13	12	-8%

Test DropJump Bipodal	Hauteur de saut (cm)	RSI	RFDMax membre sain(N.s)	RFDMax membre opéré (N.s)	Asymétrie RFDMax
T1	15	0.50	6	3	-50%

Test CMJ Unipodal	Membre sain T1	Membre opéré T1	Asymétrie T1
Hauteur de saut (cm)	263	78	-70%

Test DropJump Unipodal	Membre sain T1	Membre opéré T1	Asymétrie T1
Hauteur de saut (cm)	61	4	-93%
RFDMax (N.s)	47	5	-89%
Temps de contact (ms)	54	6	-89%

Test de Sauts Repetes 10-5	Hauteur moyenne (cm)	P moyenne (W-kg-1)	RSI moyen	% Repartition des forces	
T1	16	21	2	sain	opéré
				43%	57%

Tests fonctionnels

Single leg landing	Observation
--------------------	-------------

Contrôle du tronc/bassin :	Bon contrôle du tronc
1er contrôle du genou :	Bon contrôle du genou dans le plan frontal
2e contrôle du genou :	Réception avec angle de flexion suffisant, bon amorti
Repartition de la charge au niveau du pied	Centrée au medio pied
	Réception exagérée sur avant du pied

Test Broad Jump	T1
Distance saut (cm)	78

Hop Test	Membre sain T1	Membre opéré T1	Asymétrie T1
Distance saut (cm)	43	44	2%

Triple Hop Test	Membre sain T1	Membre opéré T1	Asymétrie T1
Distance totale sauts (cm)	19	19	0%

Cross Over Hop Test	Membre sain T1	Membre opéré T1	Asymétrie T1
Distance totale sauts (cm)	75	46	-39%

Heel Rise Test	Membre sain T1	Membre opéré T1	Asymétrie T1
Distance totale sauts (cm)	123	34	-72%

Single Leg Isometric Heel Raise Hold	Membre sain T1	Membre opéré T1	Asymétrie T1
Distance totale sauts (cm)	104	13	-88%

Photos ajoutées

4 Trueness – “True to reality”

Trueness is referred to as lack of bias, defined as the difference between a measured value obtained from

multiple repeated measurements (the expected value), and the true reference value of the parameter being estimated. If we continue our previous illustrative explanations from precision, consider the same 3D surface point in space. We have measured it several times and there is a small local cloud of potential positions where we believe this particular point on the surface of the object is located. Imagine now that you know exactly where this point is supposed to be, you have a *true reference position*. The trueness is then represented by the distance between the expected position (average of your repeated measurements, the red point) and the actual true reference position (the yellow point). The precision represents the variability of these measurements, and the trueness the deviation from a true reference.

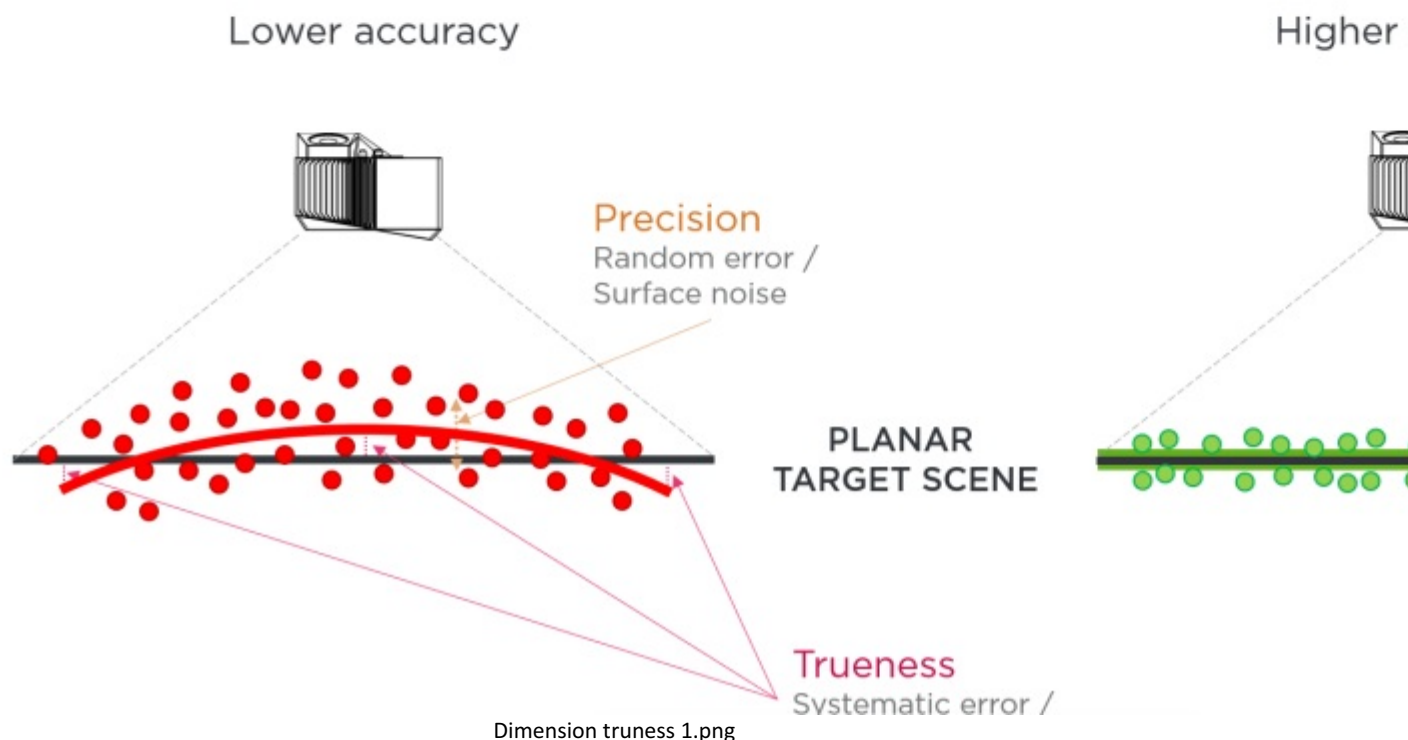
Z

The expected p
repeated measu
the true re



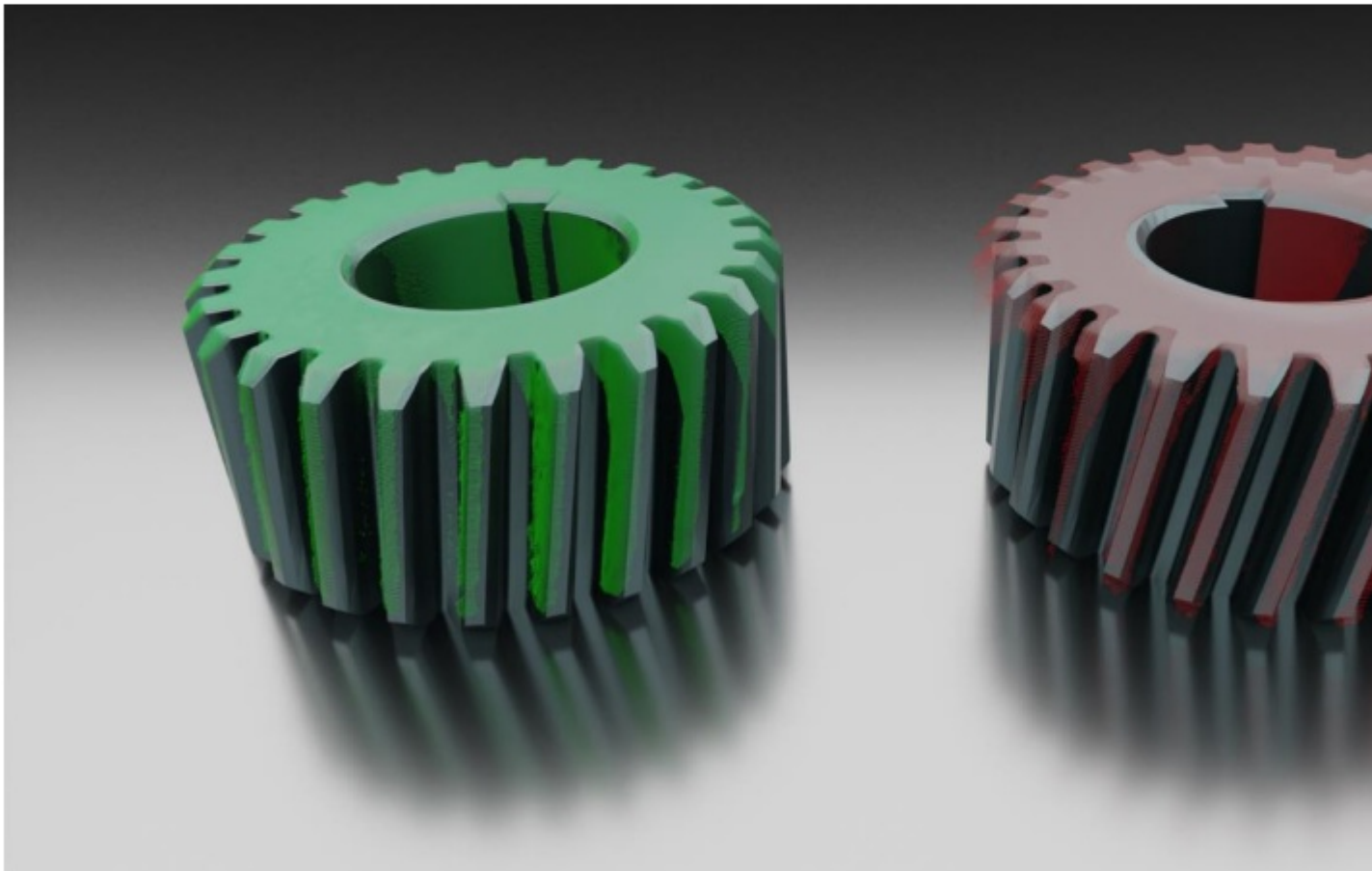
The term “true to reality” describes it very well. For 3D point clouds, trueness would represent the representation of object form and dimensions, rotation, and position. Describing the “ground truth”, if the measured point cloud is scaled correctly and without deformation, objects are located with correct positions and rotation in relations to each other.

As an illustrative example, let's look at true representation of form. If you image a planar surface, how planar is the surface when captured? The high-frequency noise on the surface represents precision, and the low frequency or systematic deviations, deformations, or misrepresentation of a planar surface (or in general the shape / form / geometry) would be your trueness. Both combined would be your accuracy.



Let's explore another example of dimension trueness. Let us say you have a CAD model of an accurately machined part that you are certain has some given dimensions. If you measure the part and you compare the captured point cloud of the part with the exact CAD model the difference would be indicative of how good the match would be. So, if you measure an object that is 200 mm long, how close to 200 mm would your 3D measurement be? If our dimension is specified to be below 0.2%, we would then have $200 \text{ mm} * 0.2 \% = 0.4 \text{ mm}$ (400 μm). The measured length will typically be within $\pm 0.4 \text{ mm}$ of the actual length.

The image below shows how trueness error manifests itself in a point cloud of some part. The CAD model of the gears is shown for reference and the points can be seen in green on the left (low trueness error) and in red on the right (high trueness error). There is a clear error in the point cloud scaling in this example.



Dimension trueness 2.png

Zivid 2+ maximum projector brightness limitation

By default, the maximum projector brightness for Zivid 2+ cameras depends on the color of the projector. For 3D capture, the color of the light is determined by the `Sampling::Pixel` settings. If the color is always white.

With `Zivid::Settings::Sampling::Pixel::blueSubsample2x2` **or** `Zivid::Settings::Sampling::Pixel::redSubsample2x2` the maximum projector brightness is 2.5.

With `Zivid::Settings::Sampling::Pixel::all` **or in 2D capture** the maximum projector brightness is capped at 2.2 to keep the camera's power consumption operation under 100 W.

projector_brightness.png