

S2 Westminster Labyrinth Modified Metric v.2.3.2 - GUI Move Tile Calculations and Calculator *

Straight Lines Speed 100,100		Constant
distance in cm	Move t	0.08451
23.87	2.02	

Arc	a†	b†	R cm	d cm
	100	66	35	14.5
ω (angle)	360	55	Radius of Arc	Dist btwn Wheels
Move t	22.43	3.43		

Color Legend for Both Calculators Above

 Input Data Here	 Calculated Speed †
 Calculated Move t (round to 0.05)	

† a & b swap due to curve $\pi = 3.141593$
 direction (+ = cw & a>b, - = ccw & a<b).

Table One of Lines, Arcs and Turns						
Mark	R	ω (ang.)	a	b	Move t	Loop #
Line S	----	n/a	100	100	2.00	n/a
L.Ysub-	2.5	65	-49	100	0.90	n/a
Arc - 1+	15	145	100	35	4.75	n/a
L.Osub-	2.5	180	-49	100	2.60	n/a
Arc - 2-	20	123	47	100	4.95	n/a
R.Rsub+	2.5	180	100	-49	2.60	n/a
Arc - 3+	25	41	100	55	1.95	n/a
L.Osub-	2.5	180	-49	100	2.60	n/a
Arc - 4-	30	53	61	100	2.90	n/a
R.Rsub+	2.5	180	100	-49	2.60	n/a
Arc - 5+	35	72.5 (145)	100	66	4.50	2
R.Rsub+	2.5	180	100	-49	2.60	n/a
Arc - 6-	30	67	61	100	3.70	n/a
L.Osub-	2.5	180	-49	100	2.60	n/a
Arc - 7+	25	76 (152)	100	55	3.60	2
R.Rsub+	2.5	180	100	-49	2.60	n/a

Table Two of Lines, Arcs and Turns						
Mark	R	ω (ang.)	a	b	Move t	Loop #
Arc - 8-	20	54	47	100	2.20	n/a
L.Osub-	2.5	180	-49	100	2.60	n/a
Arc - 9+	15	131	100	35	4.30	n/a
L.Osub-	2.5	180	-49	100	2.60	n/a
Arc - 10-	20	45	47	100	1.80	n/a
R.Rsub+	2.5	180	100	-49	2.60	n/a
Arc - 11+	25	57	100	55	2.70	n/a
L.Osub-	2.5	180	-49	100	2.60	n/a
Arc - 12-	30	75.5 (151)	61	100	4.15	2
R.Rsub+	2.5	180	100	-49	2.60	n/a
Arc - 13-	35	55 (165)	100	66	3.45	3
R.Psub+	2.5	94	100	-49	1.35	n/a
Line F	----	n/a	100	100	2.75	n/a

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"sub" under Mark indicates a sub routine - color and direction as indicated.

* Inspired by Nikos Giannakopoulos' Artist Robot and S2 work and created by T. Whitfield Stodghill, III - May 2015