

Michael Bergmann and Belinda McGuire

clock the robot out of your peripheral vision	740.88965	707.47140	2767.45260
	739.81080	422.36260	2747.83860
	616.34130	411.52940	2755.14920
And as KUKA starts advancing forward,	550.84550	170.58588	2710.82700
	739.81080	422.36260	2747.83860
walk, walk, walk, walk, walk, walk, stop.	863.28030	433.19586	2740.52800
	1010.69830	268.97690	2766.82200
Float at your fingertips,	759.67365	203.24585	2758.60550
float your fingertips and more so that it	758.59690	-17.70816	2770.61200
slides your forearms up to stop.	637.54270	-406.48227	2667.78470
	800.47610	-14.03369	2768.13260
Rotate your palms and your face to the	560.44930	-743.61660	2769.36960
left and return.	816.90870	-370.90442	2795.69000
	758.59690	-17.70816	2770.61200
Rotate your ribs to the right, and	758.93600	-681.82480	2840.83200
return.	1247.39600	414.05560	2688.33330
	364.57004	334.30280	2577.21220
Rotate your base to the left	743.24710	706.66095	2768.52120
and return	733.14550	418.95056	2747.20170
and begin rotation right	621.60490	405.36862	2749.53880
and twisting the arms right under	564.20080	176.67818	2729.62500
left to go around.	733.14550	418.95056	2747.20170
	844.68610	432.53247	2744.86450
Dip the head underneath.	1011.06990	272.80490	2775.28540
	759.73770	202.77817	2760.06790
To left leg around.	764.07880	-16.10365	2773.40040
Left arm gets caught around the	641.42480	-398.07720	2671.01300
ribs around tilts your axis reaches the	808.58090	-10.68477	2772.46780
right hand pulls it up to undo	565.52170	-741.13100	2772.20340
to then retro the twist. Carrying	811.99640	-375.58600	2789.53100
the diamond around reach the left arm.	764.07880	-16.10365	2773.40040
Change the axis of the left arm to	754.81836	-687.78400	2834.91480
change the axis of the body to a point.	1226.09450	427.78394	2715.26370
	376.18713	341.94418	2579.70780
Rotate, roll to long	745.49164	705.59610	2770.30930
and then undo to slice across.	741.87760	418.56690	2745.61250
	624.78076	400.98602	2757.16400
Left is parallel,	563.84850	169.12282	2733.75660
reach the ground and then we unfold	741.87760	418.56690	2745.61250
through the vertical.	858.97450	436.14770	2734.06100
	1009.41547	275.89660	2768.20120
Fan back, rotate around the base.	776.66425	200.24097	2765.96070
Fold at the hip. To finish	782.09830	-22.49191	2789.20460
	639.20720	-378.35913	2663.16800
undo rotate to come to vertical	840.80340	-13.67798	2783.41300
	564.58420	-741.14520	2763.84470
reach up and over your axis.	810.11660	-374.06985	2796.09600
	782.09830	-22.49191	2789.20460
Rainbow to catch	760.69885	-679.41040	2833.91380
rotate around the left hand, to reach	1217.75240	447.45135	2683.80540
the floor	388.40973	361.29694	2605.15840
rotate around.	747.96310	705.40295	2772.11330
	744.50195	420.50238	2744.74340
To go into your arm, reach your	623.57715	404.48428	2755.49270

fingertips, dive the left arm around to take your position.	554.81490	170.55700	2701.57670
	744.50195	420.50238	2744.74340
	865.42676	436.52048	2733.99410
your palm is available	1006.68300	275.50467	2773.02340
	775.23650	201.71384	2764.46560
the robot reaches	778.73190	-20.68291	2786.60910
	638.37080	-375.31128	2671.60280
you stay there.	833.21027	-13.46651	2781.76640
	566.41340	-737.12317	2763.99830
Robot starts to go	810.38934	-379.57062	2796.65600
grab hold	778.73190	-20.68291	2786.60910
and you pull it back.	758.33910	-685.41160	2834.32370
	1203.17380	452.30197	2687.27980
It pulls you in,	405.93597	366.11615	2608.96580
let it slide you let it slide you let it	750.18195	705.08260	2773.18580
slide you let it slide you	745.45020	420.84820	2745.99240
	622.12054	408.36980	2760.72340
you're underneath.	558.22550	175.69519	2711.86100
	745.45020	420.84820	2745.99240
Hold on,	868.77985	433.32660	2731.26150
it pulls you up. You drop down.	955.50030	297.32986	2810.74240
	770.28784	199.42990	2766.37650
Walking around walking around walking	768.08435	-24.72438	2789.99050
around walking around	635.12400	-364.07275	2675.52800
position	822.16660	-19.25240	2783.53050
	566.98157	-731.26480	2759.82250
robot descends	813.89460	-382.50990	2796.72300
you stay	768.08435	-24.72438	2789.99050
reach your left fingers	764.58530	-689.81120	2833.56640
reach your right fingers	1197.66140	465.77320	2689.27660
	446.96817	326.87152	2620.89380
make contact with your right elbow, dive	751.23517	705.03955	2773.89900
your head over your right fingers around	747.50590	422.17260	2746.38100
to reach horizontally	623.27856	410.43720	2759.38040
undo	561.46234	178.27620	2720.17940
folding to the ground back of the hand	747.50590	422.17260	2746.38100
undo	871.73330	433.90800	2733.38180
	965.19730	288.21100	2808.22500
through vertical to spear the right	770.36160	202.25491	2766.26500
fingertips through and fold the left	761.73364	-20.63693	2789.44300
through	637.29224	-368.95758	2673.72700
	824.70080	-14.68860	2782.85420
open to catch to then swipe back and	569.36640	-732.77370	2760.25020
développé the leg	828.58900	-371.08320	2810.90920
fall and then start to arc the arm	761.73364	-20.63693	2789.44300
up and over	775.07080	-685.53455	2853.04320
	1191.87430	463.55496	2700.79100
Then around to fold in to the hip.	428.74990	375.32834	2618.88940
undo	751.74744	705.50085	2776.05000
to the floor,	749.86480	423.80768	2747.03860
	625.54065	415.84820	2740.82740
you're flat	562.22400	187.87956	2704.17680
Reach around the arm to the back of the	749.86480	423.80768	2747.03860
head and rotate around like a helicopter	874.18896	431.76715	2753.24980

I have to make new introductions.	635.82153	-371.09766	2674.31470
You can't be spontaneous in a duet	826.78080	-9.17169	2770.95120
with a robot. Or rather, the robot	567.83386	-740.26900	2778.08600
can't be spontaneous with you. Nor	818.95710	-364.78284	2781.87940
can prerecorded running commentary,	692.34344	-9.48444	2756.14060
predetermined actions, pigeonhole	764.43445	-677.09340	2826.44900
the actions of things that need to	1175.98120	493.13200	2730.85160
interact or coordinate with, or just	448.58804	404.31890	2618.77270
cross paths or coexist, but then how	754.21545	705.77246	2777.63280
much space is there in the pigeonhole.	761.22504	437.02040	2757.20480
If you're working with it, it might	631.71670	434.19724	2754.33980
seem larger, more choices can be	566.40094	197.19170	2681.63130
made. And let's just take a second	761.22504	437.02040	2757.20480
to marvel at the elevators and	890.73340	439.84350	2760.06980
passwords and doors and ID cards and	1014.01790	291.61862	2821.05420
even robots that have been out of	766.02560	210.24480	2763.66380
service or inaccessible for periods	717.55140	-17.69211	2768.94430
of this process. Stunning how things	637.75995	-366.96213	2678.62620
are working, at least for this very	824.10080	-15.36945	2771.30130
moment. To some degree, the game is,	570.92270	-732.99854	2776.08720
in this round at least, to align our	817.92290	-370.98865	2784.51070
behavior with the fixed behavior of	717.55140	-17.69211	2768.94430
it. And this is an expensive machine,	764.66270	-685.85547	2827.90900
how much does it cost? How much do	1168.95240	500.64960	2737.13010
I cost? To make, to operate? What	456.48425	401.77118	2621.42500
peripherals are required? Someone	753.96893	706.05286	2777.44120
or multiple people have to work to	758.71704	438.65076	2762.20310
turn it on. Multiple people have to	628.29180	435.68457	2759.51880
give it goals and tasks and give it	564.96075	198.99615	2675.33280
relevance. Depending on the capacity	758.71704	438.65076	2762.20310
I might cost \$20 an hour, \$70 an	889.14230	441.61697	2764.88750
hour, \$120, and	1015.71040	293.85560	2830.53760
*/	763.83330	212.09836	2763.95780
	708.67830	-15.82478	2764.47200
Arcing around to your position stage	636.44560	-371.79626	2685.50070
right.	829.22090	-13.08333	2766.95300
undo	569.74945	-734.93050	2780.81370
Reach, reach up, spiral twist unfold	819.77750	-369.65740	2779.35500
dive under the arm. head goes behind the	708.67830	-15.82478	2764.47200
forearm, forearm reaches as you descend.	768.76550	-684.13670	2829.01680
	1158.95640	520.20310	2741.20630
Take a hold select the robot	455.25998	379.29553	2633.11620
	753.76250	705.66450	2777.38840
move your arm as you fold your right	756.26540	427.97070	2764.87550
elbow.	619.12270	420.46506	2756.70650
undo	568.08720	206.60318	2663.61910
to spirl into yourself.	756.26540	427.97070	2764.87550
undo	893.40810	435.47635	2773.04440
into the swan.	1035.82390	294.77518	2827.40820
	768.59950	205.70326	2762.02640
Take a hold with your right.	726.09750	-19.56529	2755.91100
Let it draw you in.	636.34500	-371.55510	2680.69800
You draw yourself into	835.76970	-13.56307	2762.44360
reach the left.	566.66010	-731.50930	2787.42720

Stay there.	751.32513	410.96375	2753.86500
	607.82970	394.44977	2731.44820
Pretend it isn't moving.	563.46216	211.91269	2665.10160
	751.32513	410.96375	2753.86500
Maintain your balance.	894.82056	427.47766	2776.28170
Keep reaching like it's there.	1039.88380	297.20398	2810.53100
Keep reaching like it's there.	773.10944	206.61983	2764.95390
	769.69196	-0.62439	2772.10570
It comes back to not meet you.	649.76760	-354.78506	2656.58800
	820.09550	5.17624	2779.97970
And you retreat	568.85895	-725.66724	2769.59770
and you retreat more.	815.04224	-358.46976	2767.06500
	769.69196	-0.62439	2772.10570
You hold your right arm in to almost lie	767.18850	-693.15137	2827.19360
in that hand and you slice your elbow	1132.89380	524.93286	2750.54640
across to then back up	495.42374	439.37177	2634.04790
and take a look.	755.70160	702.28540	2783.76860

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And sometimes the failing of the system is worse than not having a system to begin with. And it doesn't have an opinion of itself. I have so many opinions of myself it's like endless. But it has none of the encouraging, informative, nor prohibitive

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