1.	R2 F'		L' U2	U R2			F2 F	L' D2	U F'	D2 R2	
2.		L2 B2	F2 U	U L'		U' F'	B D	D'	R	D'	
3.	D2 U		D2 R2				D2 D2	F' B'	U2	В'	
4.	U2 L R	F2 B	L R'	R D2		U2 R2	L B2	B2 L2	R F	U2 U	
5.	L B'	B2 L2	R' F		F2 R		R' R2		F2 D'	L' B2	
Extr	a scran	nbles									
E1.		2 L'	2 B2 D'						2 B B		
E2.	F2 F' B2	L '	2 B D2						2 U2 U2		

1.	U R' U' R' F U' R U2 R2 F U'	
2.	R U' R' U' R' F R2 U' R' U' F'	
3.	U F U2 R2 F' R' U2 R' F' U2 R	
4.	U2 R' F U' R U' R2 F U' R2 U2	
5.	U R' F' U2 F' R U2 R U2 F' U'	
Extr	a scrambles	
E1.	U2 R' F2 U' R U R' U2 R U' F	
E2.	R' F U2 R U' R' F' R U2 R' U2	

	В2	D2	L2	D2	L2	U2	F'	R2	L2	F'	
	L2	D	В'	D'	U'	В2	F'	L	В'	L	
1.	Rw2	U2	В	Rw2	В	R'	Fw2	D2	Rw2	Uw2	
	L'	F'	Uw	U	В	D	R	Uw2	R	Uw'	
	Rw	Uw	Rw'	D2	F'						
	R'	F2	D'	L'	F'	R2	В'	L'	D2	L2	
	F	D	F2	U	F2	D2	L2	F2	В2	U'	
2.	Fw2	Uw2	F'	D	Rw2	B'	D2	B'	R2	D'	
	Fw2	U'	Rw	F'	Rw'	Uw	R	F	Rw	В'	
	Rw	F	Uw2								
	L2	D	F'	U'	В	L	F2	U'	F2	L'	-
	U2	L2	B2	R	D2	B2	U2	В2	L'	Uw2	
3.	F	Rw2	L'	Uw2	L2	Fw2	R2	Uw2	F	R	
	F'	D2	Uw'	L2	D	R	F'	Uw'	Fw'	Uw	
	Rw'	R2	Fw'	В2							
	U'	D2	F2	R2	U	R2	F2	R2	F2	D	
	L	U2	R	В'	L2	R'	B'	D	В'	U2	
4.	Rw2	U'	Fw2	В	D'	Rw2	L2	В2	D2	Rw2	
	В'	Uw2	D2	Rw'	U'	L	D	В2	Rw	Uw	
	R2	Uw'	D	Fw'	Uw'	В2					
	D2	F	L2	D2	L2	D2	F	D2	В2	R2	<b></b>
	F	L'	D	U2	R	F	D	U	В2	F2	
5.	Rw2	D	Rw2	F'	D	В2	Uw2	Fw2	F'	Rw2	
	R2	F	L	D'	U	Rw'	В	Rw'	Fw	Uw'	
	Rw2	Fw'	R'	В'							
Extr	a scrai	mbles									
	D	L'	F'	D2	U2	R2	L	D'	U	L'	
	F'	R2	F2	R2	L2	U2	F'	U2	F2	Rw2	
E1.	F	Rw:	2 L'	F'	R'	Fw2	2 B	F	Rw	2 Uw2	
	U2	В'	Uw	' L'	U	Fw2	2 L'	В2	Rw	' U2	
	D	Fw	2 Uw	' Fw	L2						
	D'	L2	U'	В2	U	В	D2	R2	F	R	
	L	U2	R2	U2	В2	R	U2	L'	В2	L'	
E2.	Fw2	2 Rwi	2 B	R2	U2	L	Uw2	2 F	U2	L2	
	D2	Uw	F	L2	U	F'	Fw	U'	Rw	' B	
	R2	F2	Rw2	2							

## 5x5x5 Cube Round 1 NU\_CUBING\_09-20-2015

	Rw	U'	Dw'	F2	В	Rw2	D2	Rw	L2	R2	F'	в2	
	Dw'	Fw	F'	L2	U2	D	Bw	Fw'	Lw'	В	Uw2	D	
1.	L'	Rw'	В'	U'	Lw2	L	Rw'	Dw2	U	F'	Rw2	Lw	
'	U2	Lw	Bw'	В	R	F2	Bw	Fw	В2	Lw	В'	U'	
	Uw	R2	В'	F	D'	Rw2	Dw	L	D2	Lw'	В'	Uw	
	F	Lw2	F	R'	Uw2	В2	Dw	Bw'	Lw2	Dw'	U'	D	
	Rw	Fw2	L	Uw		R	Rw2	D'	Rw	Dw	R2	L	
	Rw	Bw'	R	U	Lw'	Uw	Dw	Fw2	Uw	L2	B2	Rw2	
2.	R	Fw'	Uw	U2	В	Rw'		D2	В	U	Rw	Lw'	
	L2	Fw'	Lw'	В	U'	Rw'	Dw2	F	Uw2	В2	Uw2	F2	
	112	_ vv	<b>— vv</b>	ם	O	1000	DWZ	_	OWZ	םם	OWZ	1 2	
	D1.17	Dw2	T 7.7 !	D1.7	D	F2	Lw2	D7.7	F'	D'	F2	T Tr. 7 !	
	Bw2 Rw2	Lw2	Lw' U'	Rw Fw	D R'	r z D	Lw∠ Bw	Fw Dw'	Bw'	L2	r∠ Uw2	Uw' L'	
	Kw∠ U'	ьwz Вw	י U	rw Uw2	Fw'		R'	L L	U'	Lw2	F'		
3.	Rw2	Dw2		D2	rw Fw2	R'	Dw		F2	R2	г B2	Lw Bw2	
			L Dr.z		rw∠ Uw	U'		Uw B2	г∠ F	Lw2	Uw	ьw∠ Lw'	
	Lw	Dw'	Bw	Lw	UW	U	Dw'	DΔ	Г	⊥w∠	UW	шw	
	Uw2	R2	U	Bw	Lw2	F		Rw'	U	Lw	В'	Lw2	
	F'	L'	D	R2	Uw	L'	U	Rw2	Fw'	Uw	В'	D2	
4.	Fw2	R2	Uw	Fw'	B2	D	Rw'	Dw	D	B2	Dw	Lw	
	Bw'	Lw2	D'	F	Dw2	F'	Bw'	R2	L'	Dw2	Rw2	Dw'	
	U	D'	Uw'	F	Uw'	F2	R'	Bw	Fw	U2	R'	Dw'	
	Fw'	В'	R	F	Dw'	Lw'	Bw	D	Lw'	Rw'	D2	Lw	
	Bw2	В2	Lw2	R	L	В'	R2	U2	Dw'	F'	Lw'	Rw	
5.	Dw'	Lw2	R	L	U2	Fw	R	F2	В	Lw	Fw'	Uw	
	Fw	L'	Dw2	U2	R	Fw	R	Uw2	L'	Bw	Uw	Fw'	
	D	L'	Bw'	Rw'	D2	Fw	Rw	Lw	Uw2	Bw2	L2	Bw2	
-			_										
Ext	ra scra	ambles	3										
	Rw	' L2	Lw2	2 Dw	F	R'	Fw'	Dw	Bw	Dw	В	Lw	
	Bw	Fw		2 R2	Bw2		R	В'	L'	F	L	Bw	
E1.		Dw2		2 Fw2		Lw	R2	U	Bw	В	D'	В2	
<b>-</b> '.	Bw	2 F'	Uw	В2		Fw2			L2	R2	В2	F'	
		2 R'		2 D	Bw2		L'	Fw'	R'	Lw	Dw'	В'	
	TTv.7	2 Dw2	) F <sub>7-7</sub>	' Rw'	R2	D2	L2	Rw	U	Fw	Uw'	D2	
	R'	z Dwz D	z rw B2	D'	K∠ U	Bw2		D	Rw	Bw'	D	F2	
		Uw	U2	D2	Bw'		r z D	B2	L2	В		Fw2	
E2.		2 Uw			ьw	Uw	Bw2		LW	R'	Rw2		
	Dw.		2 B2	U		2 R2	Dw 2	F2	Dw	L'	F	Bw2	
	V	2 ۷۷ ک	ے د	J	J VV Z	. 112	<b>→ vv</b>	- 4	J VV		_	J VV Z	

## 6x6x6 Cube Round 1 NU\_CUBING\_09-20-2015

	Uw'	3Rw'	В'	Lw'	L2	3Fw'	Uw2	Bw	3Fw2	
	Dw'	Rw'	L	Dw'	R	D2	Uw	3Fw2	U2	
	Bw	Fw'	3Uw	Rw'	Dw2	3Fw	Rw'	3Rw'	В2	
	F	Rw'	3Fw	L'	Fw'	D	F	U'	Fw'	
1.	Lw2	R'	D2	3Uw	Dw2	Fw	3Rw	D'	3Rw2	
'	Rw2	3Uw'	Uw	Rw2	Dw2	D2	U'	В'	U'	
	3Fw'	Dw2	R	3Fw	Uw'	Fw'	3Rw	Fw	Rw'	
	3Fw2	Fw2	Dw'	R'	Fw'	D'	Fw'	Uw'	U	
	L'	R	Fw	3Uw'	Uw	Lw'	Bw'	U		
	3Rw	D'	3Fw2	Bw'	Rw	3Fw'	3Rw'	3Fw'	R2	
	U	В2	R'	3Fw	D	Rw	Lw2	3Fw'	F	
	Bw2	В2	U	F	В	Bw'	3Rw	U2	D'	
	3Uw2	Dw	3Rw'	В	Dw2	L'	B2	Rw'	R'	
2	Fw	3Fw'	U'	Uw	L	U2	Fw2	Uw'	B2	
2.	L'	D	R'	Fw2	_ L2	F2	L'	3Uw'	Bw'	
	3Uw2	3Rw		D2	3Fw	3Rw2	R	3Fw	D2	
	R2	D2	R'	Uw2	Rw	Uw2	Dw2	Lw	R2	
	F2	3Fw2	Rw	B	F2	U	Lw'	Dw'	1\2	
			ΙζW		Ι. Ζ.			DW		
	3Fw2	L	В'	F'	D'	R2	F2	Bw	L'	
	Dw	Rw	Lw2	R'	F	Dw'	U'	L	В	
	R'	Rw2	В2	3Rw'	F'	В2	3Fw	Dw2	3Fw'	
	Rw2	U2	Fw'	Bw	Lw'	Rw	Dw2	3Uw2	3Rw2	
3.	L'	R2	Bw	3Uw	В	Dw2	3Uw	Bw'	F'	
.	Rw	R'	L2	3Fw	R2	3Uw'	B2	D'	Dw'	
	Lw2	F'	Dw2	Bw2	3Uw'	Fw'	B2	Uw	Bw'	
	3Fw2	D'	Bw'	3Rw'	B2	Dw'	3Uw'	Lw'	3Rw'	
	3Uw'	U'	3Rw	Bw'	U	Dw2	D	F2		<b></b>
Ext	ra scrai	mbles								
	Fw2	Rw	3Rw'	3Fw2	Uw	В2	Lw'	R'	3Uw	
	L'	Bw'	3Uw'		3Uw2		U'	R	3Rw	
	Bw2	F2	3Uw'		Rw	L	3Uw'	Rw2	R	
	Dw'	Fw'	D2	Rw	D	Dw2		3Fw'	Dw	
		F2	3Rw2		3Fw	F	Fw	Lw	Bw2	
E1.	3Rw	R	F	Fw2	3Rw2		R2	3Fw'	Dw 2	
	F	D'	F2	3Rw	Lw'	Dw2	F2	R2	F'	
	R'	F2	L'	B	Uw2	B2	L2	Uw'	Lw2	
	Rw		2 Rw	L	Fw	U	R	Fw2	TW Z	
	110	277	T7!	TT+ -	Dr - !	D.'	T!	Dr	Dr.rO	
	U2 R'	3Uw	Fw' 3Fw'	Uw D'	Bw'	D' L'	Lw'	Bw	Dw2 3Rw2	
		UW			Rw		Lw'	В		
	Lw' F2	3Uw	B'	L2	Dw	Uw2	R R'	U2	Dw '	
	_	Dw2	3Uw2			3Uw T		L	U T	
E2.	Dw	Bw '	L T 7.7	Lw2	3Fw'	L	Fw	В	L	
	U	Uw'	Lw Dw2	Bw'	D'	U F'	Uw'	Dw Ev.	R 3Fw	
	F U'	B	Rw2 F'	Lw2	D D		3Rw'	Fw'		
	Lw2	Rw'	U'	Rw'	F2 Rw'	Rw2 B2	U' U2	3Uw2	3Rw	
	шw∠	3Uw	U	Bw	ĽW	БΔ	0 4	Rw		

## 7x7x7 Cube Round 1 NU\_CUBING\_09-20-2015

	3Lw'	U	Lw2	Bw2	3Dw'	U2	R	Lw2	3Lw	3Rw'	
	3Uw	D	Lw'	F2	R'	Fw'	3Uw	3Lw'	В2	3Bw'	
	U	Bw2	D'	L'	Fw	Rw'	В	F'	U2	D'	
	F	Lw2	3Uw		3Rw'	3Bw	Lw'	3Bw	R'	Rw'	
	U	3Dw2	3Uw		L2	3Fw2	3Lw	3Bw	3Dw2	3Uw2	
1.	3Bw'	3Uw	R2		R'	Dw2	U	R2	3Uw	3Bw'	
	3Dw2	3Uw	Rw'	F'	L'	3Lw'	В	3Rw	3Lw'	3Uw	
			L'	F'	D'		_		3Fw		
		3Fw				3Rw	3Dw	3Bw2		Lw	
	D	Dw2	Uw2		R'	Rw'	Bw	U	Rw'	Dw2	
	3Uw'	R'	Uw2	3Bw2	3Fw'	3Rw'	3Dw2	В	Rw2	U	
	Rw2	D'	3Lw2	Rw	Lw'	3Bw2	Dw	Lw2	Dw	3Bw2	
	3Dw'	В	Bw	Fw'	3Dw	D	Bw'	U2	3Dw'	Dw2	
		R	Rw'	3Bw2	3Fw'	L2	Lw2	Uw	3Lw2		
	D	Rw	3Lw	3Rw2	3Uw'	Dw	Rw	3Bw2	Dw2	Fw'	
	3Dw'	3Lw	U'	Uw'	D D	Dw		Uw'	3Uw	D2	
2.	3Bw	3Dw'	D2	B2	Dw'	3Rw'	U'	R	3Uw'	F2	
	L	R'	3Rw	D	3Rw	U2	Lw	3Fw	3Bw	D'	
	Bw	F	L2	В	U	Dw'	Fw	3Rw	Dw'	Fw'	
			3Fw2		-	3Bw'			_	rw L'	
	В				Rw2		Rw2	Uw	Lw2		
	Fw'	3Lw2	K'	Lw	В'	Uw	3Lw'	В'	D	U	
	Uw'	Lw	U2	3Fw2	3Rw	3Dw'	3Bw2	Fw2	В	3Uw	
	Dw	L'	3Lw'	Rw2	Lw	Fw	3Dw	D2	В'	L	
	Rw2	Lw'	ט'	Lw	3Dw	В'	3Bw'	Lw	3Rw	R'	
	3Uw	Fw	3Bw2		U2	Dw2	3Rw'	Fw	3Dw'	L2	
	Fw'	F'	Rw2		D	L2	Uw2	3Dw'	В	L2	
3.	D'	3Uw'	В'	Dw	U	3Fw	Lw2	L2	R2	Rw	
	F2	3Dw	R	3Rw'	3Uw	B'	3Fw'	Bw'	3Dw2		
	U2	3Uw2	Lw	3Lw		R2	Dw2	3Dw	Fw	Lw2	
	F2	Fw'	Uw		U'	Rw	R'	B2	3Fw'	3Bw2	
	3Lw'	Dw'	3Dw'	3Bw	3Dw	R	F2	3Bw2	3Dw'	Rw Z	
	эцм	DW	שענ	3DW	שענ	K	ΓΔ	3DWZ	3DW	ΚW	
Extr	ra scra	mbles	6								
	3Dw	' 3 B 1 1 7	2 Rw2	Uw2	3Fw	Bw2	В'	F	3Bw	Rw2	
	Fw	F'	Bw	3Bw2			3Rw	Dw2	R2	3Lw	
	3Rw		Lw2	U2	Fw2	. ப 'U'	Uw2	R2	3Fw'	3Bw'	
	3Uw		U2	Rw	L L	3Uw'		L'	R'	U2	
		2 D'	3Fw	Uw	υ'	3Bw2		U	3Lw	3Bw'	
E1.	Lw'	Z D U	Dw2	3Bw'				3Fw'	3Bw2		
	Rw2		2 U2	3Dw2		LW	3Bw2		D2	3Lw'	
	3Rw		2 UZ 2 Lw'	3Fw'		ьw Rw	B2	L2	Uw2	3Rw'	
1	)KW	D D W					Dw	ьz В'	F2		
	777	2 D	) 2T +-+	ריים כ			1 / 1/4/	D	$\Gamma \angle$	3Rw	
	U2	3Rw		2 Bw2	3Bw'				2 T + + 1	רם	
	U2 L'	3Rw 3Fw		2 Bw2 B'	3Bw' Dw	3Bw'	3Rw	Bw2	3Lw2	B2	
									3Lw2	B2 F'	
	L'	3Fw	' U2 B'	В'	Dw Fw'	3Bw'	3Rw	Bw2			
	L' U'	3Fw Lw2	' U2 B'	B' Bw	Dw Fw'	3Bw' R	3Rw Dw'	Bw2	3Bw'	F' Bw'	
	L' U' D	3Fw Lw2 Uw Fw'	U2 B' 3Bw2 Dw2	B' Bw 2 3Lw2 3Lw	Fw' Rw' L2	R Fw2 Rw	3Rw Dw' 3Bw'	Bw2 D' Dw Lw'	3Bw'	F' Bw'	
	L' U' D D' 3Dw	Lw2 Uw Fw' U2	B' 3Bw2 Dw2 Dw2	B' Bw 2 3Lw2 3Lw Lw'	Fw' Rw' L2 3Rw'	R Fw2 Rw U	Dw' 3Bw' Bw D'	Bw2 D' Dw Lw' 3Rw'	3Bw' U 3Fw2 Fw	F' Bw' Rw Bw	
E2.	L' U' D D' 3Dw Dw2	Lw2 Uw Fw' U2 3Lw	B' 3Bw2 Dw2 Dw2 R2	B'  Bw 2 3Lw2 3Lw Lw' Rw'	Dw Fw' Rw' L2 3Rw'	R Fw2 Rw U R'	Dw' 3Bw' Bw D' B2	D' Dw Lw' 3Rw' Bw2	3Bw' U 3Fw2 Fw Lw2	F' Bw' Rw Bw Dw	
E2.	L' U' D D' 3Dw Dw2 Uw2	Lw2 Uw Fw' U2 3Lw	B' 3Bw2 Dw2 Dw2 R2 3Uw	B'  Bw 2 3Lw2 3Lw Lw' Rw' ' 3Fw'	Fw' Rw' L2 3Rw' F	R Fw2 Rw U R'	Dw' 3Bw' Bw D' B2 D	D' Dw Lw' 3Rw' Bw2 Lw	3Bw' U 3Fw2 Fw Lw2 Dw	F' Bw' Rw Bw Dw L'	
E2.	L' U' D' 3Dw Dw2 Uw2 3Bw	Lw2 Uw Fw' U2 3Lw R'	B' 3Bw2 Dw2 Dw2 R2 3Uw Fw'	B'  Bw 2 3Lw2 3Lw Lw' Rw' 3Fw' Bw2	Fw' Rw' L2 3Rw' F R 3Fw2	R Fw2 Rw U R' U'	Dw' 3Bw' Bw D' B2 D 3Lw2	D' Dw Lw' 3Rw' Bw2 Lw F'	3Bw' U 3Fw2 Fw Lw2 Dw B'	F'Bw'RWBwDwL'L	
E2.	L' U' D' 3DW Dw2 Uw2 3BW Uw2	Lw2 Uw Fw' U2 3Lw R' 'U' 3Dw	B' 3Bw2 Dw2 Dw2 R2 3Uw Fw' 2 D2	B' Bw 2 3Lw2 3Lw Lw' Rw' ' 3Fw' Bw2 Rw'	Fw' Rw' L2 3Rw' F R 3Fw2 3Bw'	R Fw2 Rw U R' U' 2 R 3Uw	Dw' 3Bw' Bw D' B2 D 3Lw2 Lw	D' Dw Lw' 3Rw' Bw2 Lw F' 3Dw	3Bw' U 3Fw2 Fw Lw2 Dw B' Uw'	F' Bw' Rw Bw Dw L' Lw R'	
E2.	L' U' D' 3Dw Dw2 Uw2 3Bw	Lw2 Uw Fw' U2 3Lw R' U' 3Dw	B' 3Bw2 Dw2 Dw2 R2 3Uw Fw'	B'  Bw 2 3Lw2 3Lw Lw' Rw' 3Fw' Bw2	Fw' Rw' L2 3Rw' F R 3Fw2	R Fw2 Rw U R' U' R R 3Uw Fw'	Dw' 3Bw' Bw D' B2 D 3Lw2	D'DWLW'3RW'BW2LWF'3DWU2	3Bw' U 3Fw2 Fw Lw2 Dw B'	F' Bw' Rw Bw Dw L' Lw R' R2	

1.	L2 D2 F2 D	B2 F' U' F	R2 L' B Rw2	B B R	U2 R' F'		B2 B R		
2.	U2 B2 F'	U' ]	U2 B' B2 L' B2 R	D2 D' Uw	U2 F	B' U'	D2 R'		
3.	U' B2 R	R' 1 U' :	D' F2 B' U F' D	U F Rw	L2 U Uw	R2 R	D U2		
Exti	F U2 B B2	D2 ? F U	' U' ' B'	B F2 U'		.2	F U2 R'		
E2.	F		R B2 B2 U' Uw				D2 2 R'	:	

1.	D' U2	R D2	L' L2	F F		B' U2	D B'	R2 U2	U	R	
2.	D2 F'	F' U	R2 L	B' B'	D2 R'	F' F	R2 L	F B'	D2 L'		
3.	F2 D'	L' F'	D2 D2			F2 F2	U2 D	L U'	B2 L2		
4.	B2 U	D B	B2 L	U' F2		U2 D	F2 L'	L2 U'	F F2	R R	
5.	D R'	R F2	U' R2	D' L2		R L2	B2 U	R F2	B' U	D	
Extr	a scran	nbles									
E1.	L' L2 U'	2 R	U2 U'	L F				? F2 ? R'			
E2.	L' D' F2	L	D2 U2	2 F2 2 F					2 F L		

# **Fewest Moves**

- Notate your solution by writing one move per bar.
- To delete moves, clearly erase/blacken them.
- Face moves F, B, R, L, U, and D are clockwise.
- Rotations x, y, and z follow R, U, and F.
- ' inverts a move; 2 doubles a move. (e.g.: U', U2)
- w makes a face move into two layers. (e.g.: Uw)
- A [lowercase] move is a cube rotation. (e.g.: [u])
- You have 1 hour to find a solution.
- Your solution length will be counted in OBTM.
- Your solution must be at most 80 moves, including rotations.
- Your solution must not be directly derived from any part of the scrambling algorithm.

NU_CUBING_09-20-2015
3x3x3: Fewest Moves Round 1
Scramble 1 of 3

Competitor:	
WCA ID:	
DO NOT FILL IF YOU A	ARE THE COMPETITOR
Graded by:	Result:

Scramble: U2 B' L2 B' R2 F' L2 U2 F L' B' U' R B2 D2 R U' B' R' D'


# **Fewest Moves**

- Notate your solution by writing one move per bar.
- To delete moves, clearly erase/blacken them.
- Face moves F, B, R, L, U, and D are clockwise.
- Rotations x, y, and z follow R, U, and F.
- ' inverts a move; 2 doubles a move. (e.g.: U', U2)
- w makes a face move into two layers. (e.g.: Uw)
- A [lowercase] move is a cube rotation. (e.g.: [u])
- You have 1 hour to find a solution.
- Your solution length will be counted in OBTM.
- Your solution must be at most 80 moves, including rotations.
- Your solution must not be directly derived from any part of the scrambling algorithm.

NU_CUBING_09-20-2015
3x3x3: Fewest Moves Round 1
Scramble 2 of 3

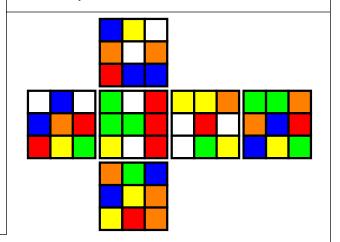
Competitor:
WCA ID:
DO NOT FILL IF YOU ARE THE COMPETITOR
Graded by: Result:

Scramble: F2 R' D2 L' B2 U2 R' D2 R' D B2 F D F R' D L2 B' F'

# **Fewest Moves**

- Notate your solution by writing one move per bar.
- To delete moves, clearly erase/blacken them.
- Face moves F, B, R, L, U, and D are clockwise.
- Rotations x, y, and z follow R, U, and F.
- ' inverts a move; 2 doubles a move. (e.g.: U', U2)
- w makes a face move into two layers. (e.g.: Uw)
- A [lowercase] move is a cube rotation. (e.g.: [u])
- You have 1 hour to find a solution.
- Your solution length will be counted in OBTM.
- Your solution must be at most 80 moves, including rotations.
- Your solution must not be directly derived from any part of the scrambling algorithm.

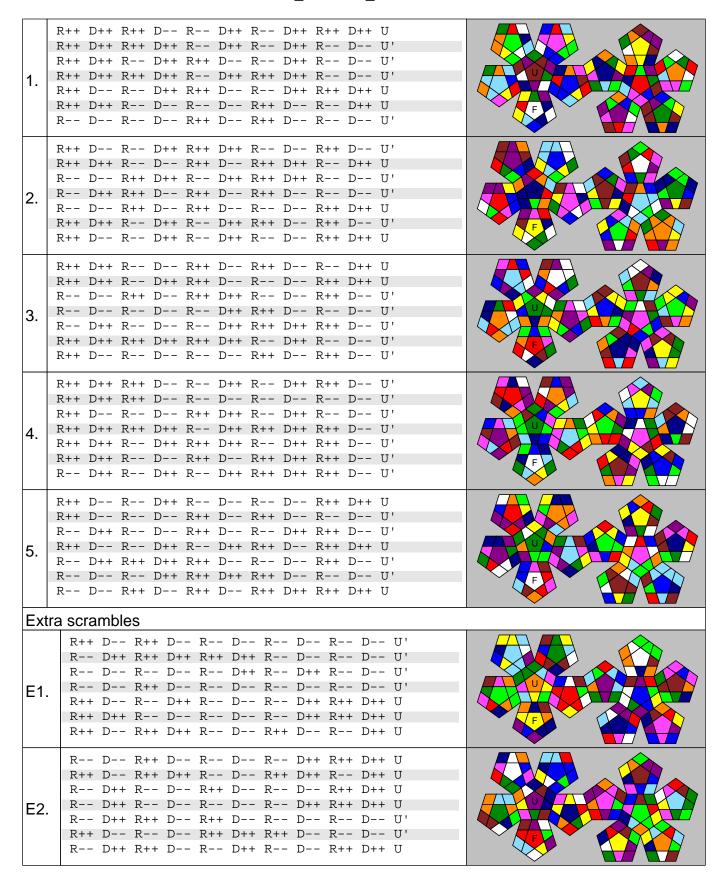
3x3x3: Fewest Moves Round 1 Scramble 3 of 3
Competitor:
WCA ID:
DO NOT FILL IF YOU ARE THE COMPETITOR
Craded by



Scramble: U' D F2 R' D' F R B' D L F R2 U L2 F2 U2 R2 D F2 D' B2


1.	U2 L U	R' B B'	D2 R'	R U'	D2 B	L L2	U2 B'	F' F'	
2.	B2 U' R'	L2 B D	U2 D L	B2 B2 D		B2 B	R2 F	D' U2	
3.	R2 F F2	U2 D2	R' F	F U'	U R2	D F2	L U'	U2 D	
Extr	D2	? U2 ? B2	2 F2 2 D F'	F	U			F2 F2	
E2.		В	2 L2 D					? L ? R2	

#### Megaminx Round 1 NU CUBING 09-20-2015



1.	U'RLBL'B'R'L'BR'L'u'l'rb'	
2.	U L' U B' U' R' U' R' L U B u' r b	
3.	UB'L'R'LUB'U'BURul'r'b	
4.	L' B U L U B' R U B U' L r b	
5.	UBL'RL'R'B'UR'L'R'l'	
Ext	ra scrambles	
E1.	L'URBURBUBR'L'l'rb'	
E2.	R' L' U L B' U' L U R B' R' u' l b	

## Square-1 Round 1 NU\_CUBING\_09-20-2015

1.	(-3,-3) / $(4,-1)$ / $(0,$	1,-1) / (3,-2) / ,-2) / (-4,-5) / ,0) / (0,-4)
2.	(-5,0) / $(-1,5)$ / $(-3,0)$ / $(0,-4)$ / $(-4,0)$	,-4) / (-3,-3) /
3.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	,0) / (0,-3) /
4.	(-3,0) / $(2,-1)$ / $(0,$	3,0) / (4,-5) / ,-5) / (6,0) / 2,-2) / (1,0) /
5.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	,-3) / (3,0) /
Ext	xtra scrambles	4 1) / /1 0) /
E1.	1.	1,0) / (-1,0) /
E2.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0,-2) / (-3,-3) /

1.	UR3+ R0+ U3- UR	DR5+ D5+ R2+	DL3- L5- D2+	UL4- ALL2+ L3+	U1+ y2 ALL5+	
2.	UR5- R4+ U5+ UR	DR5+ D2+ R2+	DL6+ L5- D4+	UL1+ ALL2- L2-	U3- y2 ALL3+	
3.	UR4- R3- U5-	DR5- D1- R5+	DL4- L5- D2+	UL1- ALL1+ L4-		
4.	UR4+ R2+ U3- DL	DR2+ D1- R0+ UL	DL2- L1- D1-	UL5- ALL4+ L0+	U4+ y2 ALL0+	
5.	UR0+ R6+ U1- DR	DR3- D1- R6+ DL	DL1+ L2+ D0+ UL	UL3+ ALL4- L6+	U2- y2 ALL1-	000
Extr	a scrambles	 S				
E1.	UR5+ R2- U3- UR	DR2+ D4+ R6+ UL	L3-			
E2.	UR0+ R4+ U4- UR	DR5- D4+ R3- DR	DL3+ L4+ D3-	ALL3-		

	D2	L2	F2	R2	B2	U2	B'	U2	
	F2	L	D2	L2	F	U2	F2	D	
1.	R2	L	Fw2	U'	Rw2	B2	D'	Rw2	
.	R '	L2	U'	Fw2	B2	R	Fw	Uw2	
	D	U'	R	L	Rw	U	Fw	Uw	
	Fw2	В	D'	z '					
	В2	R2	В2	R'	L2	В2	D2	L'	
	D2	L2	F'	L'	U	L2	U	R	
	U	R2	В	U'	Rw2	В	L	Fw2	
2.	F'	R'	Fw2	R	В'	L	D2	R	
	Uw	B'	Uw'	Fw2	Rw2	U2	Rw	Fw	
	F2	L'	B2	Rw	В	x2	У'		
	В	L2	F'	L2	В	R2	D2	F'	<b></b>
	D2	L2	D2	L	U'	D2	R'	D	
	F	U2	R'	F	Fw2	U	L	Fw2	
3.	U'	Fw2	L'	Uw2	D'	L2	Fw2	В2	
	L	Fw'	R'	D2	U'	Fw2	Rw	Uw'	
	F'	Rw'	R2	Fw'	В2	X	У		
Exti	ra scram	bles							
	В2	D	R2	D2	В	U'	F	D	
	L	D'	F2	U2	B2	L'	D2	R2	
	B2	R	B2	R2	Rw2	_	В	L'	
E1.	R2	Uw2		Uw2	В'	L2	D2	R2	
	Uw'	F'	L2	F	В	Rw	Fw'	L2	
	В2	Rw2	D'	Rw	Fw	x'	y2		
	U2	В	R2	В2	F'	D2	В2	D2	
	F'	D2	L	R'	D'	B2	L'	B'	
	R'	B'	D'	В'	Rw2	F'	Rw2	D	
E2.	F2	Rw2		Fw2	B	Rw2	D2	L2	
	Rw	D'	L'	B2	 L'	Fw	Rw2		
	В'	Rw'	R2	Fw2		У			
						_			

## 5x5x5 Cube: Blindfolded Round 1 NU\_CUBING\_09-20-2015

	F'	Fw2	Lw2			Dw2	D	L'		Bw'	
	L'	Uw	Lw	Ţ	J'	Rw'	U'	Rw	<i>i</i> 2	U	
	Uw2	L2	Lw	F	2	Uw	F	Rw	<i>1</i> 2	F	
	U '	Dw2	Bw	F	'W'	F	Uw'	В'		Rw2	
1.	Bw'	L2	В2	I	ا ر	Rw'	D	В'		Dw'	
	Bw	R2	F'	Ţ		R2	D	R'		D'	
	В'	Lw'	L	F	22	Uw'	в2	Fν	<b>7</b> '	L	
	D	R	В'	Ι	) '	3Fw'	3Uw2				
	Dw2	F	Rw'			В'	Lw	Rw		Bw2	
	R2	Bw2	Rw2	2 C	J2	Bw2	Lw	D'		Fw'	
	D2	Bw	В	Ţ	Jw	Dw	U2	R'		D'	
	Bw'	Uw	Dw	I	Jw2	Rw2	L2	Вw	<b>√</b> '	L'	
2.	Uw2	F'	Uw	Ε	3w2	Dw2	F	Uw	<i>1</i> 2	R	
	В	Dw	Uw2	2 E	3w'	Uw	D2	L		В'	
	Dw2	Bw	Fw'	' E	3	L2	Dw	L'		Lw	
	В'	Lw	Bw	I	ـ2	3Rw'					
	Dw'	Lw	Uw2			Lw'	Fw	Dw		Bw	
	Dw	R'	U2	I		Rw'	В2	U '		В'	La Carte Car
	U'	Rw	Dw'	' E	32	Fw2	L'	Lν	J	Dw	
	U2	Fw'	Uw2	2 E	)	R'	Bw'	F٧	<i>1</i> 2	Dw	
3.	L'	R'	Rw2	2 E	32	Rw2	В	Rw	<i>1</i> 2	B2	
	Dw	Fw	Dw2	2 E	)	L'	R	Rw	<i>1</i> 2	Lw'	
	Dw'	В'	L	I	Δr	Rw	F'	U'		В	
	R	Bw'	L'	F	וק	3Fw	3Uw'	ı			
Г. <i>4</i>		- l- l									
EXT	ra scran	nbies									
	L'	Uw'	U		L2	Rw'	Fw'	L		Rw2	
	Uw'	Dw'	Fw	12	Dw2	Bw'	U'	Rı	W	R2	
	Bw2	L2	F		Bw2	R'	Rw	F۱	w'	Uw'	
	U	В	U '		Rw	В'	R	D		U2	
E1.	Lw2	Uw	Bw	J'	Fw'	F'	R2	F		L2	
	В	F2	Dw	J	D'	L2	Lw	F		L2	
	Lw'	Fw'	U		Fw	U	F	υ	w'	D	
	Bw'	D'	Fw	12	L'	3Uw2	2				
	ט'		L	F'	U	L2		L2	U'	Lw	
	Fw	D	Rw'	F2	Bw2	Rw	Fw'	D'	L2	R'	
	Uw'	F2	Lw2	Uw	Rw	Bw2	L	Fw'	Dw2	2 Uw	
E2.	L	Lw	Bw	В2	Dw'	Fw2	F	В'	L2	Lw	
	Bw	U'	Lw2	Uw'	Fw2	Lw'	F	D	Fw2	2 U2	
	Fw'	U'	Dw	F	U	Lw'	D2	Uw	L2	U '	

1.	F2 U Fw	L' B' Uw	D2 U2	B2 B'	D2 U	R L'	B2 U'	F2 L'	U2 D	R U2	
2.	D2 R2 U2 Rw	B' U2 F Uw	2 I I	12 T'	D2 U R'	F F D		R2 D L	B' L' U		
3.	F' R2 R2 Rw	U2 B B	τ	3' J2	L2 L2 B	R2 D D2		B2 L' F	D2 U' D		
4.	U2 R' B	L D F'	I	J2 32 J'	L L2 B'	B2 D L		D2 B2 Uw'	U2 R		
5.	L2 U2 D2	R2 B' R'	I	)2 .' )2	B2 U2 B'	D R U		U2 F Fw'	R2 L' Uw2	2	
6.	F2 D2 B2 Uw	R' R R2	Ι	32 : : 2	L L U'	R U L		B2 F2 U	R' D2 Rw2	2	
7.	D' B Uw	U L	B2 F	L2 L	R2 D'	U' B'	L2 R	D' B	F' R2	U Fw	

8.	B2 L B2 D2 L F Uw'		B2 R2 U	R F F'	B2 U' U2	D2 L F'	L' D Rw2		
9.	U F2		12 F2 32 D		F2 D D2 U	R F'		IJ Fw	
10.	D2 U2 F' Uw2	R2 R2 R'	D2 U' B'	R' L U'	B2 U' L	R R' D'	B2 B Rw'		
11.	U' R2 F'	F2 B2 D	L2 U2 L'	D' B' U	R2 R F	U' B2 U'	F2 L2 Rw'		
12.	U' D2 R' Uw	R2 B2 F'	D' U' L'	B2 B	R2 L' F2	U2 B' D2	B2 D2 Fw'		
13.	F2 B2 U2 Fw	R F2 L Uw2	B2 R D2	L' B F2	U2 U' D	B2 B' U2	U2 F R'		
14.	R' D2 F Uw	F2 R' L'	D2 U F	B2 B2 R2	F2 D F	L F' U2	B2 U' Fw'		

15.	B2 L Rw	U2 R'	R2 B	F2 L'	บ' บ'	L2 R	F2 F'	D2 D'	B2 R2	D F2	
16.	R2 L'	B' D'	L2 B'	U2 L'	F' B2	U2 R'	R2 U'	B B2	R' U	B2 Fw	
17.	B' F' L Rw'	L2 R2 D Uv	2 ]	B' B' L2	U2 D' B2	L2 R L2		D2 U2 B	L2 B U'		
18.	L2 B2 L' Uw	D2 U' F2	' I	B2 B L'	R2 L D'	U U L2		L2 B' R	U' F' Fw	'	
19.	L2 U2 B'	D' F2 R	2 I	B2 R F'	D2 F' L	F2 L U		U D Fw'	R2 U' Uw	1	
20.	U2 L2 L2 Uw	B2 B2 B1	2 τ	ט ט' ס'	R2 L F	B2 F R2	ı	D' L' B'	B2 U' Rw2	2	
21.	F2 R2 D' Rw	L2 U2 L Uv	2 ] J	B' F2 J'	U2 D2 L2	B U D	1	L2 L2 B'	U2 R U2		

22.	В2	D2	L2	B2	D	R2	B2	
	U'	В2	L	В'	R'	U'	F'	
	U	F'	U	В2	D'	U2	Rw2	
	Uw2							
	TTI	т Э	D	D O	DО	D 2	EΩ	
	U'	L2	D	R2	B2	R2	F2	
23.	U'	B2	L'	В	L'	F	D'	
	U2	В'	U'	R'	F2	R2	Uw'	
24.	L2	D2	L2	В2	D	R2	U	-
	L2	U2	В	R	F'	D'	L	
	U	L'	U2	L'	F2	D	Rw'	
	Uw2							
	<b></b> 0	<b>D</b> 0		_			T 0	
	F2	R2	F2	L	F2	U2	L2	
25.	U2	В	R'	U	L'	R 	F2	
	R'	U2	F2	U	L2	Fw'	Uw	
	В2	D	U2	В2	U2	F2	R2	
	U	L'	D	F	L'	U2	R2	
26.	F	R'	F2	D	F2	R	Fw'	
	Uw'							
	U2	F2	U2	L'	F2	U2	R	<u></u>
27.	U2	L2	B'	D	B'	D	B2	
	F'	L	F2	ם ' U	R2	В	Uw2	
		ш	ГД	U	KΔ	D	∪w⊿	
28.	D'	R2	F2	D'	R2	В2	F2	
	U2	L	В'	L'	В2	L	В2	
	D	В	U2	R'	F2	U	Rw2	
	Uw2							

29.	D' D2		U2 B2 D2 F'	U R'	R2 D'	D'	R U	D' Rw	В'	
30.	B2 B2 L	F2 F2 B2	U	F2 F B2	L2 L2 R		F2 B' Fw'	D2 U2 Uw	'	
31.	B R2 Fw		B U2 F' D2	F2 L2	U2 D	B U	L2 R'	U2 D	F L2	
32.	F' R2 L'	L2 B F2	D	B F' B	F U2 L	2	D2 R' Fw'	U2 U'		
33.	D' B2 R' Uw	R2 F2 B'		B2 D2 U	U L R	<b>T</b>	B2 U' U2	U2 F' Rw	'	
34.	D2 R2 D Fw	B2 D' B' ' Uw	บ' บ'	B2 R' B	U D2 L		B2 F B'	D' L' L2		
35.	R2 U' Fw		F2 D' D' U	U2 B'	B2 L'	L2 U		R2 F2		

1.	L R	L R	ULRL'UB'U	
2.	L R	L U	BLU'R'BUB'	
3.	L R	L R	L'RBLUR'B	
4.	L R	L R	B' L' R L' U' R' U	
5.	L R	L R	U'R'U'RBL'B'	
Ext	ra scramb	oles		
E1.	L F	R L'	U' L B' R U L' U' R'	
E2.	L F	J J S	J' L R U B' L B L	