

Table 1: Total input raster extrusion times , and fabrication times $T_{\text{fab}}(Q)$ of the tool-path Q computed by RP3, SLic3r, SCA, SCN, and by with various limits Δ , as well as the percent fab-time increases and computation times T_{cpu} of . All tests used $\theta = 20$. All times are in seconds.

Part	θ	for various values of Δ									
		SLic3r	RP3	SCN	SCA	4.0	8.0	16.0	32.0		
adfoot	0	84.1	89.7	90.0	141.0	101.8	96.9 +8%	91.6 +2%	89.8 -0%	89.7 -0%	
adfoot	90	83.8	91.0	90.2	144.6	102.6	93.7 +4%	91.2 +1%	90.3 -0%	90.3 -0%	
bkwren	0	129.2	137.8	139.5	314.4	203.9	155.2 +13%	145.3 +5%	142.5 +3%	142.4 +3%	
bkwren	90	126.6	134.6	134.3	210.1	144.8	136.6 +2%	134.2 -0%	134.2 -0%	134.2 -0%	
cthang	0	113.0	126.4	127.9	240.1	153.6	129.4 +2%	126.5 -0%	126.1 -0%	126.1 -0%	
cthang	90	112.8	126.1	125.5	275.6	188.5	176.7 +41%	138.7 +11%	130.7 +4%	128.4 +2%	
dstop1	0	41.2	47.4	48.2	101.4	65.6	54.4 +15%	50.5 +7%	48.9 +3%	48.8 +3%	
dstop1	90	41.2	48.4	47.0	96.5	62.3	47.7 +1%	47.5 +1%	47.5 +1%	47.5 +1%	
dstop2	0	24.8	30.7	30.9	60.9	37.3	31.4 +2%	30.9 +1%	30.9 +1%	30.9 +1%	
dstop2	90	23.5	28.8	28.4	61.1	41.6	29.1 +2%	28.8 +1%	28.8 +1%	28.8 +1%	
flange	0	158.1	168.4	171.8	329.2	228.8	230.6 +37%	187.7 +11%	177.1 +5%	173.6 +3%	
flange	90	159.8	171.6	174.5	349.2	232.0	183.8 +7%	177.7 +4%	176.3 +3%	176.3 +3%	
hlatch	0	152.1	161.8	163.1	270.1	183.1	165.9 +3%	163.8 +1%	163.3 +1%	163.3 +1%	
hlatch	90	150.7	158.5	160.1	262.1	188.1	206.8 +30%	170.3 +7%	163.9 +3%	161.8 +2%	
ladder	0	17.5	23.9	24.5	63.3	49.8	31.1 +30%	25.5 +7%	25.1 +5%	25.1 +5%	
ladder	90	17.0	23.6	22.9	61.0	38.1	23.4 +2%	23.4 +2%	23.4 +2%	23.4 +2%	
nkhang	0	119.2	134.2	129.5	271.5	177.8	138.7 +7%	132.0 +2%	130.9 +1%	130.9 +1%	
nkhang	90	123.9	138.3	141.2	331.0	220.3	172.0 +24%	151.3 +9%	145.1 +5%	144.1 +4%	
runleg	0	156.0	178.3	181.9	402.4	249.7	186.1 +4%	183.0 +3%	183.0 +3%	183.0 +3%	
runleg	90	150.1	165.8	170.2	446.7	295.9	—	266.9 +61%	195.5 +18%	179.5 +8%	
tkwren	0	44.4	50.5	51.2	86.8	60.8	55.7 +10%	52.0 +3%	50.4 -0%	50.4 -0%	
tkwren	90	46.7	53.5	55.4	124.8	82.6	57.9 +8%	56.5 +6%	56.4 +5%	56.4 +5%	
unwren	0	27.9	37.1	38.4	108.8	68.4	39.5 +6%	39.3 +6%	39.3 +6%	39.3 +6%	
unwren	90	25.2	32.9	33.5	76.5	52.5	39.9 +21%	35.2 +7%	34.3 +4%	34.3 +4%	

Table 2: Total input raster extrusion times , and and fabrication times $T_{\text{fab}}(Q)$ of the tool-path Q computed by RP3, SLic3r, SCA, SCN, and by with various limits Δ , as well as the percent fab-time increases and computation times T_{cpu} of . All tests used $\theta = 20$. All times are in seconds.

		for various values of Δ													
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adfoot	90	83.8	91.0	90.2	144.6	102.6	93.7	+4%	91.2	+1%	90.3	−0%	90.3	−0%	
bkwren	0	129.2	137.8	139.5	314.4	203.9	155.2	+13%	145.3	+5%	142.5	+3%	142.4	+3%	
bkwren	90	126.6	134.6	134.3	210.1	144.8	136.6	+2%	134.2	−0%	134.2	−0%	134.2	−0%	
cthang	0	113.0	126.4	127.9	240.1	153.6	129.4	+2%	126.5	−0%	126.1	−0%	126.1	−0%	
cthang	90	112.8	126.1	125.5	275.6	188.5	176.7	+41%	138.7	+11%	130.7	+4%	128.4	+2%	
dstop1	0	41.2	47.4	48.2	101.4	65.6	54.4	+15%	50.5	+7%	48.9	+3%	48.8	+3%	
dstop1	90	41.2	48.4	47.0	96.5	62.3	47.7	+1%	47.5	+1%	47.5	+1%	47.5	+1%	
dstop2	0	24.8	30.7	30.9	60.9	37.3	31.4	+2%	30.9	+1%	30.9	+1%	30.9	+1%	
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tkwren	0	44.4	50.5	51.2	86.8	60.8	55.7	+10%	52.0	+3%	50.4	−0%	50.4	−0%	
tkwren	90	46.7	53.5	55.4	124.8	82.6	57.9	+8%	56.5	+6%	56.4	+5%	56.4	+5%	
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unwren	90	25.2	32.9	33.5	76.5	52.5	39.9	+21%	35.2	+7%	34.3	+4%	34.3	+4%	

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