G Codes - Motion Codes

G Code and Machine Motion
There are 3 basic motion types
Linear Move in X Y Z position as fast as possible
Linear Move in X Y Z position at a defined Feedrate
Circular Move to a position at a defined feedrate

Code	Description	Maslow Function	Maslow Descripton	Maslow Supported Syntax
G00	Rapid Posiioning / Traverse - Non Cutting	void executeGcodeLine(const String& gcodeLine) int G1(const String& readString, int G0orG1) G1(gcodeLine, gNumber);	Rapid Positioning	G00 X ***float*** Y ***float*** Z float Or a combination there of
G01	Liner Interpolation - Feed	void executeGcodeLine(const String& gcodeLine) int G1(const String& readString, int G0orG1) G1(gcodeLine, gNumber);	Linear Interpolation	G01 X ***float*** Y ***float*** Z ***float*** F ***float*** Or a combination there of
G02	CW -Clockwise Circular Interpolation	void executeGcodeLine(const String& gcodeLine) int G2(const String& readString, int G2orG3) G2(gcodeLine, gNumber);	Circular Interpolation - Clockwise	G02 X ***float*** Y ***float*** I ***float*** J ***float*** F ***float***
G03	CCW -Counter Clockwise Interpolation	void executeGcodeLine(const String& gcodeLine) int G2(const String& readString, int G2orG3) G2(gcodeLine, gNumber);	Circular interpolation - Counter Clockwise	G02 X ***float*** Y ***float*** I ***float*** J ***float*** F ***float***
G04	Dwell	Not Supported	Not Supported	Not Supported
G10		void executeGcodeLine(const String& gcodeLine) Void G10(const String& readString) G10(gcodeLine);		
G17	XY plane selection	Not Supported	Not Supported	Not Supported
G20	Imperial Data Input [Inches]	void executeGcodeLine(const String& gcodeLine) void setInchesToMillimetersConversion(float newConversionFactor) setInchesToMillimetersConversion(INCHES);		
G21	Metric Data Input [Millimetres]	void executeGcodeLine(const String& gcodeLine) void setInchesToMillimetersConversion(float newConversionFactor) setInchesToMillimetersConversion(MILLIMETERS);		
G28	Reference Point Return	Not Supported	Not Supported	Not Supported
G38		void executeGcodeLine(const String& gcodeLine) void G38(const String& readString) G38(gcodeLine);		
G40	Cutter Compensation	Not Supported	Not Supported	Not Supported
G41	Cutter Compensation	Not Supported	Not Supported	Not Supported
G42	Cutter Compensation	Not Supported	Not Supported	Not Supported
G73	Canned Cycle - High Speed Peck Drilling	Not Supported	Not Supported	Not Supported
G74	Canned Cycle - Counter Tapping	Not Supported	Not Supported	Not Supported
G75		Not Supported	Not Supported	Not Supported
G76	Canned Cycle - Fine Boring	Not Supported	Not Supported	Not Supported
G77		Not Supported	Not Supported	Not Supported
G78		Not Supported	Not Supported	Not Supported
G79		Not Supported	Not Supported	Not Supported
G80	Canned Cycle - Cancel	Not Supported	Not Supported	Not Supported
G81	Canned Cycle - Drilling Spot Boring	Not Supported	Not Supported	Not Supported
G82	Canned Cycle - Drilling Counter Boring	Not Supported	Not Supported	Not Supported
G83	Canned Cycle - Deep hole peck drilling	Not Supported	Not Supported	Not Supported
G84	Canned Cycle - Tapping	Not Supported	Not Supported	Not Supported
G85	Canned Cycle - Boring	Not Supported	Not Supported	Not Supported
G86	Canned Cycle - Boring	Not Supported	Not Supported	Not Supported
G87	Canned Cycle - Back Boring	Not Supported	Not Supported	Not Supported
G88		Not Supported	Not Supported	Not Supported
G89	Canned Cycle - Boring	Not Supported	Not Supported	Not Supported
G90	Absolute Zero Command	void executeGcodeLine(const String& gcodeLine) bool useRelativeUnits = false; useRelativeUnits = false		
G91	Incremental command	void executeGcodeLine(const String& gcodeLine) bool useRelativeUnits = false; useRelativeUnits = true		
G94	Feed per minute	Not Supported	Not Supported	Not Supported
G95	Feed per Revolution	Not Supported	Not Supported	Not Supported
G98	Return to initial level	Not Supported	Not Supported	Not Supported
G99	Return to R point Level	Not Supported	Not Supported	Not Supported

M Codes - Miscellaneous Codes

Code	Description	Maslow Function	Maslow Descripton	Maslow Supported Syntax
M00	Program Stop	void executeMcodeLine(const String& gcodeLine) pause();	Program Pause / Unconditional Halt / Stop	
M01	Optional Program Stop	void executeMcodeLine(const String& gcodeLine) pause();	Optional Pause / Halt / Sleep	
M02	Program Reset	void executeMcodeLine(const String& gcodeLine) setSpindlePower(false);	Program End	
M03	Spindle on Clockwise	void executeMcodeLine(const String& gcodeLine) setSpindlePower(true);	Spindle On - clockwise Maslow spindle runs only one direction, but turn spindle on for either code	
M04	Spindle Counter Clockwise	void executeMcodeLine(const String& gcodeLine) setSpindlePower(true);	Spindle On - Counter Clockwise Maslow spindle runs only one direction, but turn spindle on for either code	
M05	Spindle Stop	void executeMcodeLine(const String& gcodeLine) void setSpindlePower(boolean powerState) setSpindlePower(false);	Spindle Off	
M06	Tool Change		Tool Change	
M08	Coolant On	Not Supported	Not Supported	Not Relevant for CNC Wood Router
M09	Coolant Off	Not Supported	Not Supported	Not Relevant for CNC Wood Router
M30	Program Reset and Rewind	void executeMcodeLine(const String& gcodeLine) setSpindlePower(false);	Program End with return to program top	