Marlin GCode Cheat Sheet

G0 G1
G1 Coordinated Movement X Y Z E
G2 CW ARC
G3 CCW ARC
G4 Dwell S or P
G10 retract filament according to settings of M207
G11 retract filament according to settings of M208
G21 Metric values
G28 Home all Axis (or ex: G28 X0 Y0)
G29 Detailed Z-Probe, probes the bed at 3 points.
G30 Single Z Probe, probes bed at current XY
G31 Report Current Probe status
G90 Use Absolute Coordinates
G91 Use Relative Coordinates
G92 Set current position to cordinates given

Some examples:

Switch extruder
T0 Switch to first extruder
T1 Switch to second extruder
after switch: G92 E0 (zero the extruded length)

macro example:
G92 E0
T0
G92 E0

M104 T0 S0 ;extruder 1 heater off
M104 T1 S240 ;extruder 2 heat to 240°

M140 S0 ;heated bed heater off

G1 Z15.0 F9000 ;move the platform down 15mm

G1 E-1 F300 ;retract the filament a bit

RepRap M Codes
M0 Unconditional stop. Wait to press LCD button (ULTRA_LCD)
M1 Same as M0
M104 S[] Set extruder target temp
M105 Read current temp
M106 Fan on
M107 Fan off
M109 [] Wait for extruder current temp to reach target temp.
M114 Display current position

Custom M Codes
M17 Enable/Power all stepper motors
M18 Disable all stepper motors; same as M84

M20 List SD card
M21 Init SD card
M22 Release SD card
M23 Select SD file (M23 filename.g)
M24 Start/resume SD print
M25 Pause SD print
M26 Set SD position in bytes (M26 S12345)
M27 Report SD print status
M28 Start SD write (M28 filename.g)
M29 Stop SD write
M30 Delete file from SD (M30 filename.g)
M31 Output time since last M109 or SD card start to serial

M42 Change pin status via gcode

M80 Turn on Power Supply
M81 Turn off Power Supply
M82 Set E codes absolute (default)
M83 Set E codes relative while in Absolute Coordinates (G90) mode
M84 S? Disable steppers until next move. S0 to disable the timeout.
M85 Set inactivity shutdown timer with parameter S.
M92 Set axis_steps_per_unit same syntax as G92

M114 Output current position to serial port
M115 Capabilities string
M117 display message
M119 Output Endstop status to serial port
M140 S? Set bed target temp
M190 S? Wait for bed current temp to reach target temp.
M200 Set filament diameter

M201 Set max acceleration in units/s^2 for print moves
M202 Set max acceleration in units/s^2 for travel moves
M203 Set maximum feedrate that your machine can sustain
M204 Set default acceleration: S normal moves T filament only moves (M204 S3000 T7000) im mm/sec^2 also sets minimum segment time in ms (B20000) to prevent buffer underruns and M20 minimum feedrate
M205 advanced settings: minimum travel speed S=while printing T=travel only, B=minimum segment time X= maximum xy jerk, Z=maximum Z jerk, E=maximum E jerk

M206 set additional homeing offset
M207 set retract length S[positive mm] F[feedrate mm/sec] Z[additional zlift/hop]
M208 set recover=unretract length S[positive mm surplus to the M207 S*] F[feedrate mm/sec]
M209 S<1=true/0=false> enable automatic retract detect if the slicer did not support G10/11: every normal extrude-only move will be classified as retract depending on the direction.
M220 S- set speed factor override percentage
M221 S- set extrude factor override percentage
M240 Trigger a camera to take a photograph
M301 Set PID parameters P I and D
M302 Allow cold extrudes
M303 PID relay autotune S sets the target temperature. (default target temperature = 150C)
M400 Finish all moves
M500 stores paramters in EEPROM
M501 reads parameters from EEPROM (if you need reset them after you changed them temporarily).
M502 reverts to the default "factory settings". You still need to store them in EEPROM afterwards if you want to.
M503 print the current settings (from memory not from eeprom)
M999 Restart after being stopped by error

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