

Marlin for GenX

Rev1

Changes made to Marlin code:

- GenX has its own bootloader on the ATmega1284P processor compatible with STK500V2 protocol
- Created new pin assignment for GenX and provided new motherboard option in configuration file
- Adjusted the positive/negative movement directions of bipolar step motors
- Added master reset function to reset the current state of step motors during initialization
- Provided a new I2C port for the user to control two fans for extrusion
- Fans' speeds are printed out for monitoring
- Added new delays for more accurate stepping function
- Created three new set of commands for ATtiny45 controller: Set a digital/analog port as input/output, Make a digital port high/low, and Receive data over a digital/analog port
- Chose the proper heat sensor configuration and thermistor table
- Added new timer defines and override some write functions to control ports directly

New Added Features:

User can perform the following added features as part of the GenX board design:

- View the GenX board firmware details using M600 command: Firmware vendor, Firmware ID, and Fan Controller ID
- Control two fans at the same time for extrusion with the same specified rpm by using M106 Sxxx (xxx represents value of rpm specified) and M107 commands
- Use M613 command to turn both fans fully on/off at the same time
- Perform a software reset to make the board ready for new firmware upgrade through M601 command
- Set a digital or analog port as input or output on ATtiny45 controller using M610 command
- Make a digital port high or low on ATtiny45 controller using M612 command
- Receive data over a digital or analog port on ATtiny45 controller using M611 command

Next Version Features:

- Joystick support
- Ramps LCD integration
- Color touch screen
- Smart driver support for one or two additional stepper driver motors
- Support for the precision reference option