

1 Code File list

1.1 Embedded C

Embedded C main - main.c

Embedded C Digiswitch

Digiswitch Digiswitch source - Digiswitch.c

Digiswitch Digiswitch header - Digiswitch.h

Embedded C PID

PID PID source - PID.c

PID PID header - PID.h

Embedded C Keypad

Keypad Keypad source - Keypad.c

Keypad Keypad header - Keypad.h

Embedded C UI

UI UI source - UI.c

UI UI header - UI.h

Embedded C Blinking

Blinking Blinking source - Blinking.c

Blinking Blinking header - Blinking.h

Embedded C SPI

SPI SPI source - SPI.c

SPI SPI header - SPI.h

Embedded C UART

UART uart source - uart.c

UART uart header - uart.h

Embedded C systick_frt

systick_frt systick_frt source - systick_frt.c

Code File list

systick_frt systick_frt header - systick_frt.h

Embedded C Config - Config.h

Embedded C emp_type - emp_type.h

Embedded C tm4c123gh6pm - tm4c123gh6pm.h

Embedded C tm4c123gh6pm_startup_ccs_gcc - tm4c123gh6pm_startup_ccs_gcc.c

1.2 VHDL

VHDL Top level - Info_test.sch

Top level Communication - Communication.sch

Communication RecMode - RecMode.vhdl

Communication SPISlave - SPI.vhdl

Communication Toggler - Toggler.vhdl

Communication TraMode - TraMode.vhdl

Top level Control - Control.sch

Control ModPWM - ModPWM.vhdl

Control Mux8x2 - Mux8x2.vhdl

Control PanCalibration - PanCal.vhdl

Control TiltCalibration - TiltCal.vhdl

Top level Encoders - Encoders.sch

Encoders EncoderFilter - EncoderFilter.vhdl

Encoders Dir_V3 - Dir_V3.vhdl

Encoders SCount - SCount.vhdl

Encoders ErrorMemory - ErrorMemory.vhdl

Top level InfoDis - InfoDis.sch

InfoDis BinaryTBcd - BinaryTBcd.sch

BinaryTBcd AutoLoadSignal - AutoLoadSignal.vhdl

BinaryTBcd BcdDigit - BcdDigit.vhdl

BinaryTBcd BinaryToBcd - BinaryToBcd.vhdl

InfoDis Multiplexed_Display - Multiplexed_Display.sch

Multiplexed_Display clkDiv1kHz - clkDiv1kHz.vhdl

Multiplexed_Display Count_2_bit - Count_2_bit.vhdl

Multiplexed_Display Encoder_2x4 - Encoder_2x4.vhdl

Multiplexed_Display Mux_4x1_bit - Mux_4x1_bit.vhdl

Multiplexed_Display Mux_4x8_bit - Mux_4x8_bit.vhdl

Multiplexed_Display SegmentDecoder - SegmentDecoder.vhdl

InfoDis BlinkDp - Blink.vhdl

InfoDis clkDiv1Hz - clkDiv10Hz.vhdl

InfoDis clkDiv2Hz - clkDivNHz.vhdl

InfoDis Count1Bit - Count1Bit.vhdl

InfoDis Mux4x2 - Mux_4x2.vhdl

InfoDis Mux1x2 - Mux1x2.vhdl

InfoDis Mux8x2 - Mux8x2.vhdl

InfoDis Mux16x2 - Mux16x2.vhdl

InfoDis PWMTToLED - PWMTToLED.vhdl

InfoDis SCount16Bit - SCount16Bit.vhdl

InfoDis SignedToUnsigned - SigendToUSigen.vhdl

1.3 MATLAB

MATLAB

MATLAB

MATLAB

MATLAB LQR

LQR Main LQR Project - LQRprojekt.m

LQR Nbar calculation script - rscale.m

LQR Simulink file for LQR - LQRsim.slx