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3

EXPLOLER

OPEN EDITORS 1 unsaved

GROUP 1

Blink.If src

AccelerometerDisplay.If src

GROUP 2

AccelerometerDisplay.If

LF-3PI-TEMPLATE

robot-lib

src

embedded-lab-solutions

lib

test

AccelerometerDisplay.If

Blink.If

BumpDisplay.If

EncoderDisplay.If

GyroAngleDisplay.If

GyroDisplay.If

HelloPico.If

LineDisplay.If

ModalBug.If

RobotTemplate.If

Timer.If

src-gen

test

.gitignore

.gitmodules

flake.lock

flake.nix

LICENSE.txt

Lingo.toml

Makefile

README.md

TIMELINE

Blink.If

AccelerometerDisplay.If

src > AccelerometerDisplay.If > C

1 /\*\*

2 \* Display three dimensions of accelerometer measurements on the LCD display of the

3 \* <a href="https://www.pololu.com/docs/0J86">Pololu 3pi+ 2040 robot</a>.

4 \* To run this program, first put the robot in BOOTSEL mode (hold button B while

5 \* resetting). Then the sequence of commands is something like this:

6 \*

7 \* ```

8 \* \$ cd ~/lf-pico

9 \* \$ lfc src/AccelerometerDisplay.lf

10 \*

11 \* ...

12 \* \$ picotool load -x bin/AccelerometerDisplay.elf

13 \* ```

14 \* This compiles the program, loads it into flash memory on the robot, and begins

15 \* executing it.

16 \*

17 \* @author Edward A. Lee

18 \*/

19 target C {

20 platform: {

21 name: "rp2040",

22 board: "pololu\_3pi\_2040\_robot"

23 },

24 threading: false,

25 }

26

27 import Accelerometer from "lib/IMU.lf"

28 import Display from "lib/Display.lf"

29

30

AccelerometerDisplay

Accelerometer

Display

(0, 250 msec)

trigger

x

y

z

line0

line1

line2

line3

main\*

0 0

CMake: [Debug]: Ready

[GCC 10.3.1 arm-none-eabi]

Build

[all]

Live Share

Button to open the diagram

Specification of target hardware.

Lingua Franca code

The diagram

Lingua Franca  
code