Aufgabe 1: Wenn man die Lichtschranke unterbricht, wird ein Signal ausgegeben. Wenn man die Taster betätigt, wird dies am Controller angezeigt.​

void setup() {

KeplerFischBRAIN\_INIT();

WRITE\_MOTOR(M2, 100);

WRITE\_MOTOR(M1, 0);

LCD\_DRAW\_TEXT(1, 1, "T1:");

LCD\_DRAW\_TEXT(5, 1, "T1:");

LCD\_DRAW\_TEXT(1, 2, "T1:");

}

void loop() {

if (READ\_IN\_CLOSED(D8) == 0) WRITE\_LED(L1, 1);

else WRITE\_LED(L1, 0);

if (READ\_IN\_CLOSED(D8) == 1) WRITE\_LED(L3, 1);

else WRITE\_LED(L3, 0);

LCD\_DRAW\_INT(3, 1, READ\_IN\_CLOSED(D1), 1);

LCD\_DRAW\_INT(8, 1, READ\_IN\_CLOSED(D3), 1);

LCD\_DRAW\_INT(3, 2, READ\_IN\_CLOSED(D5), 1);

if (READ\_BUTTON\_CLOSED(B1) == 1) WRITE\_MOTOR(M1, 100);

if (READ\_BUTTON\_CLOSED(B2) == 1) WRITE\_MOTOR(M1, -100);

}

​

Aufgabe 2: Wenn man den Knopf betätigt, öffnet sich das Tor, wartet eine kurze Zeit und schließt sich wieder.​

#include "KeplerFischBRAIN.h"

void setup() {

KeplerFischBRAIN\_INIT();

WRITE\_MOTOR(M2, 100);

WRITE\_MOTOR(M1, 0);

LCD\_DRAW\_TEXT(1, 1, " ");

LCD\_DRAW\_TEXT(1, 2, " ");

LCD\_DRAW\_TEXT(1, 1, "Status:");

LCD\_DRAW\_TEXT(1, 2, "NOTHING/CLOSED");

}

void loop() {

if (READ\_IN\_PRESSED(D3) == 1) {

WRITE\_MOTOR(M1, -100);

LCD\_DRAW\_TEXT(1, 2, "OPENING");

}

if (READ\_IN\_CLOSED(D1) == 1) {

WRITE\_MOTOR(M1, 0);

LCD\_DRAW\_TEXT(1, 2, "NOTHING/OPEN");

SLEEP(5000);

WRITE\_MOTOR(M1, 100);

LCD\_DRAW\_TEXT(1, 2, "CLOSING");

}

if (READ\_IN\_CLOSED(D5) == 1) {

WRITE\_MOTOR(M1, 0);

LCD\_DRAW\_TEXT(1, 2, "NOTHING/CLOSED");

}

}

​Aufgabe 3: Wenn die Lichtschranke unterbrochen ist, schließt sich das Tor nicht, erst wenn der Weg wieder frei ist, fährt es wieder zu.​

void setup() {

KeplerFischBRAIN\_INIT();

WRITE\_MOTOR(M2, 100);

WRITE\_MOTOR(M1, 0);

LCD\_DRAW\_TEXT(1, 1, " ");

LCD\_DRAW\_TEXT(1, 2, " ");

LCD\_DRAW\_TEXT(1, 1, "Status:");

LCD\_DRAW\_TEXT(1, 2, "NOTHING/CLOSED");

}

void loop() {

if (READ\_IN\_PRESSED(D3) == 1) {

WRITE\_MOTOR(M1, -100);

LCD\_DRAW\_TEXT(1, 2, "OPENING");

}

if (READ\_IN\_PRESSED(D1) == 1) {

WRITE\_MOTOR(M1, 0);

LCD\_DRAW\_TEXT(1, 2, "NOTHING/OPEN");

SLEEP(5000);

WRITE\_MOTOR(M1, 100);

LCD\_DRAW\_TEXT(1, 2, "CLOSING");

}

if (READ\_IN\_CLOSED(D8) == 0) {

SLEEP(1000);

}

if (READ\_IN\_PRESSED(D5) == 1) {

WRITE\_MOTOR(M1, 0);

LCD\_DRAW\_TEXT(1, 2, "NOTHING/CLOSED");

}

}

Aufgabe 4: Wenn die Lichtschranke im geschlossenen Zustand unterbrochen wird, öffnet sich nun das Tor.​

void setup() {

KeplerFischBRAIN\_INIT();

WRITE\_MOTOR(M2, 100);

WRITE\_MOTOR(M1, 0);

LCD\_DRAW\_TEXT(1, 1, " ");

LCD\_DRAW\_TEXT(1, 2, " ");

LCD\_DRAW\_TEXT(1, 1, "Status:");

LCD\_DRAW\_TEXT(1, 2, "NOTHING/CLOSED");

}

void loop() {

if (READ\_IN\_CLOSED(D8) == 0) {

WRITE\_MOTOR(M1, -100);

LCD\_DRAW\_TEXT(1, 2, "OPENING");

}

if (READ\_IN\_PRESSED(D3) == 1) {

WRITE\_MOTOR(M1, -100);

LCD\_DRAW\_TEXT(1, 2, "OPENING");

}

}