## 1 ON-MODULE BUTTONS WITH PULL-UP RESISTORS

## 1.1 Tasks:

- 1. Module RobDuino includes two "on-board" buttons which are connected from pin A4 and A5 to GND. This two buttons can allso be used but internal pull-up resistors must be turned on.
- 2. Add manual functionality to the automated barrier gate. Add the possibility to manually lift (e.g. press A4 button) and lower (A5 button) the barrier gate.

## 1.2 Questions:

```
    <++>
    <++>
```

```
1
      const int MOTOR_PIN_1 = 7;
2
      const int MOTOR_PIN_2 = 6;
3
       const int REED_SW_PIN = A1;
4
       const int ROBDUINO_BT_A4_PIN = A4;
5
       const int ROBDUINO_BT_A5_PIN = A5;
6
7
       [+] void setup() {
8
       [-] void loop() {
9
               bool car_is_detected = !digitalRead(REED_SW_PIN);
               if (car_is_detected){
10
                   moveGateUp();
11
                   delay(3000);
12
13
                   moveGateDown();
14
               manualGateControll();
15
16
       [-] void manualControll(){
17
               bool button_A4_is_pressed = !digitalRead(ROBDUINO_BT_A4_PIN);
18
19
               if (button_A4_is_pressed){
20
                   gateUp();
21
22
               // add code for the case if button_A5_is_pressed ...
23
           }
24
       [+] void stopTheGate(){
       [+] void moveGateUp() {
25
26
       [+] void moveGateDown() {
```

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## 1.3 Summary

1.3.1 <++>

<++>

1.4 Issues

1.4.1 <++>

<++>

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