1 REED SWITCH IN NON-CONTACT DETECTION

1.1 Tasks:

1. Add a reed switch to the front of the barrier gate to detect the car.
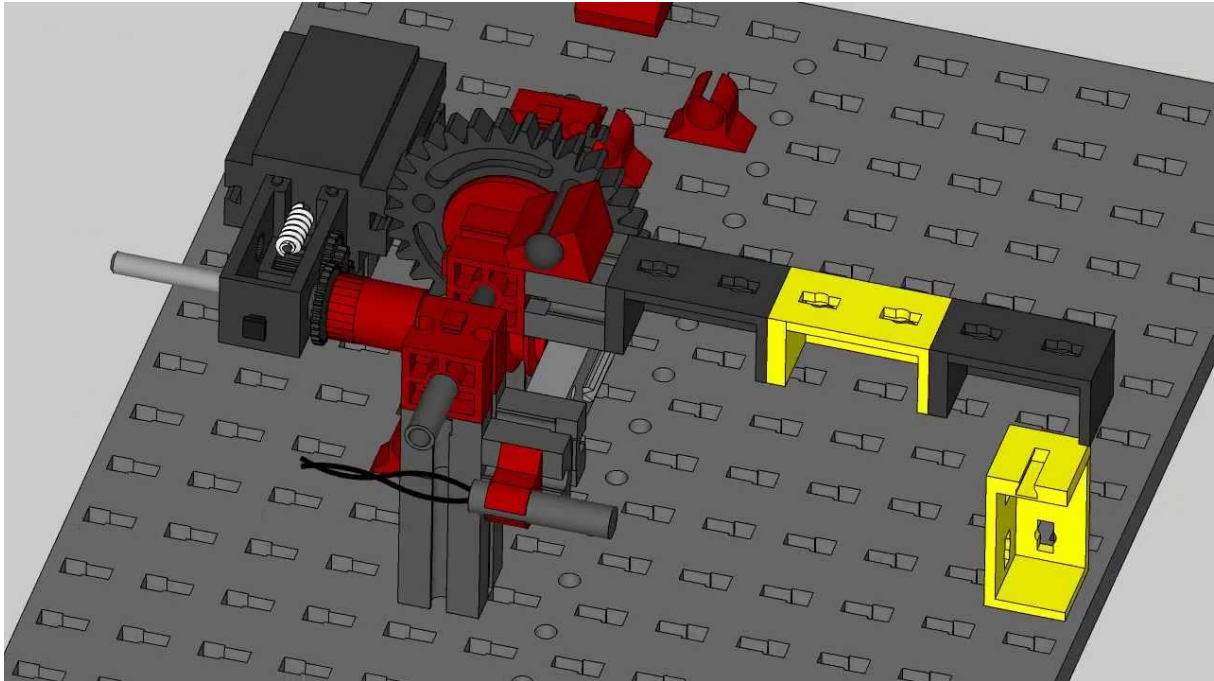2. Connect the reed switch to the input pin A1 an GND.

Figure 1: Adding reef switch sensor.

3. Write program as such that the gate barrier will open if car is detected. Some hints are showv in nex example code:

```
1    const int MOTOR_PIN_1 = 7;
2    const int MOTOR_PIN_2 = 6;
3    const int REED_SW_PIN = A1;
4
5    [-] void setup() {
6            pinMode(MOTOR_PIN_1, OUTPUT); //declaration of I/O pins
7            pinMode(MOTOR_PIN_2, OUTPUT);
8            pinMode(REED_SW_PIN, INPUT_PULLUP);
9        }
10   [-] void loop() {
11           bool car_is_detected = !digitalRead(REED_SW_PIN);
12           if (car_is_detected){
13               moveGateUp();
14               delay(3000);
15               moveGateDown();
16           }
17       }
18   [+] void stopTheGate(){
19   [+] void moveGateUp() {
20   [+] void moveGateDown() {
```

1.2 Questions:

1. What is pull-up resistor?
2. How can we turn on the internal pull-up resistor of the microcontroller?

1.3 Summary:

1.3.1 <++>

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1.4 Issues:

1.4.1 <++>

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