0.1 REED SWITCH IN NON-CONTACT DETECTION

0.1.1 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.

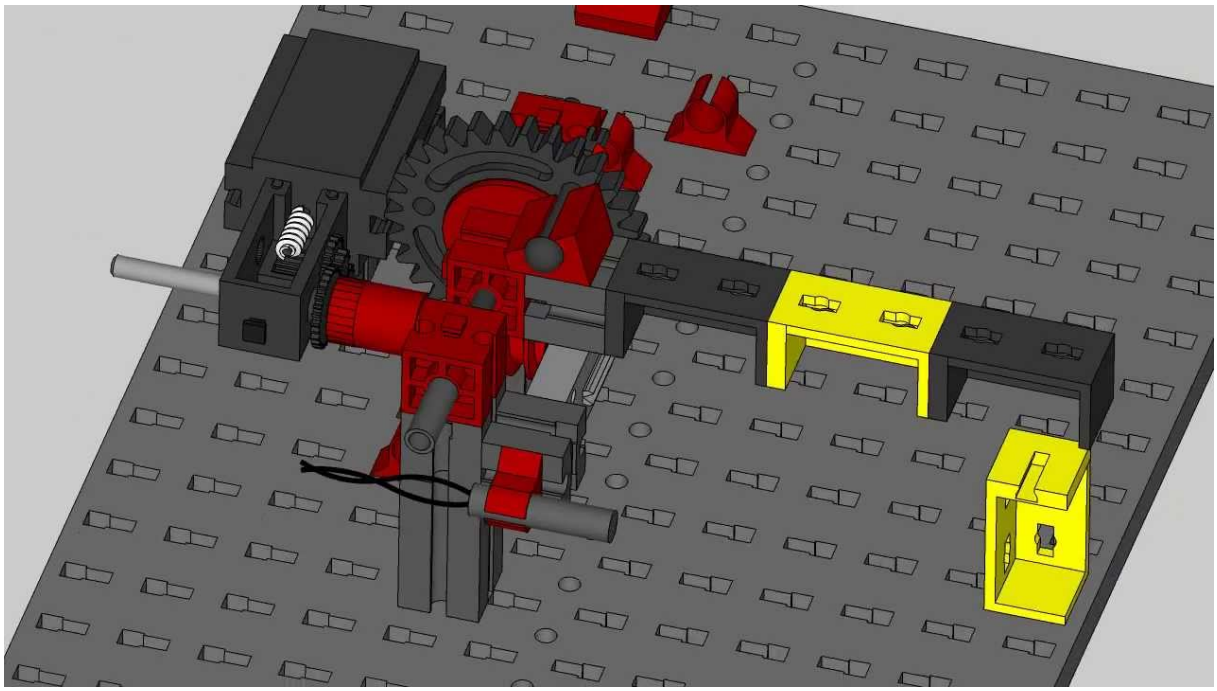

Figure 1: Adding reef switch sensor.

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

```
const int MOTOR_PIN_1 = 7;
const int MOTOR_PIN_2 = 6;
const int REED_SW_PIN = A1;

[-] void setup() {
        pinMode(MOTOR_PIN_1, OUTPUT); //declaration of I/O pins
        pinMode(MOTOR_PIN_2, OUTPUT);
        pinMode(REED_SW_PIN, INPUT_PULLUP);
    }
[-] void loop() {
        bool car_is_detected = !digitalRead(REED_SW_PIN);
        if (car_is_detected){
            moveGateUp();
            delay(3000);
            moveGateDown();
        }
    }
[+] void stopTheGate(){
[+] void moveGateUp() {
[+] void moveGateDown() {
```

0.1.2 Questions:

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

0.1.3 Summary:

0.1.3.1 <++> <++>

0.1.4 Issues:

0.1.4.1 <++> <++>