0.1 POTENTIOMETER AS ANGLE SENSOR

0.1.1 Tasks:

1. Add the potentiometer to the shaft of barrier gate. You can follow the instrucions in the video.

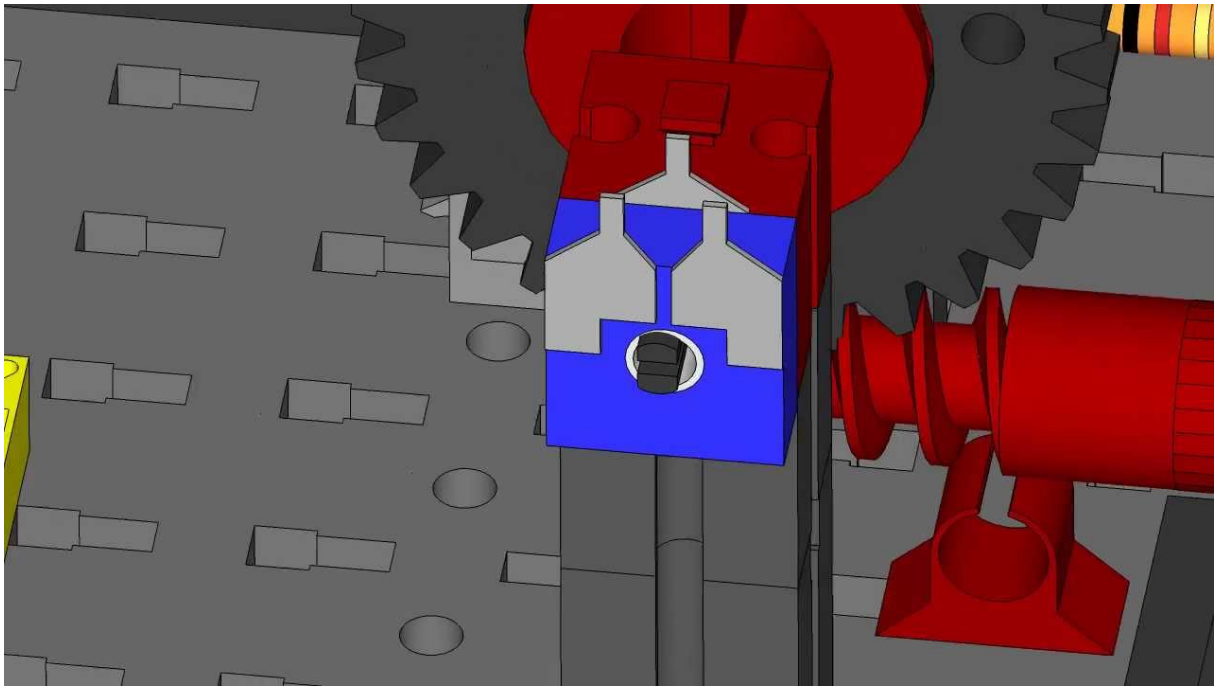

Figure 1: Adding potenciometer as an angle sensor.

2. Test the potentiometer values with next program:

```
1  void setup() {
2   Serial.begin(9600);
3  }
4
5  void loop() {
6   Serial.println(analogRead(A3));
7   delay(100);
8  }
```

3. Change the functions for lifting and lowering the barrier gate to use potenciometer readings instead of switch and time controlled movement.

```
   [+] void setup() {
   [+] void loop() {
   [+] void manualGateControll(){
   [+] void stopTheGate(){
   [-] void moveGateUp() {
            int gate_orientation = analogRead(POTENTIOMETER_PIN);
            while (gate_orientation < 750){
                digitalWrite(MOTOR_PIN_1, HIGH);
                digitalWrite(MOTOR_PIN_2, LOW);
                gate_orientation = analogRead(POTENTIOMETER_PIN);
            }
            stopTheGate();
        }
   [+] void moveGateDown() {
```

4. Advanced: Calculate the angle of barrier gate from the analog readings of potenciometer.

0.1.2 Questions:

1. What is the value of the angle sensor when the barrier gate is in the upper orientation...
2. ... and in lower orientation.

0.1.3 Summary:

0.1.3.1 <++> <++>

0.1.4 Issues:

0.1.4.1 <++> <++>