1 BARRIER GATE CONSTRUCTION

1.1 Tasks:

1. Construct the barrier gate according to video instructions.

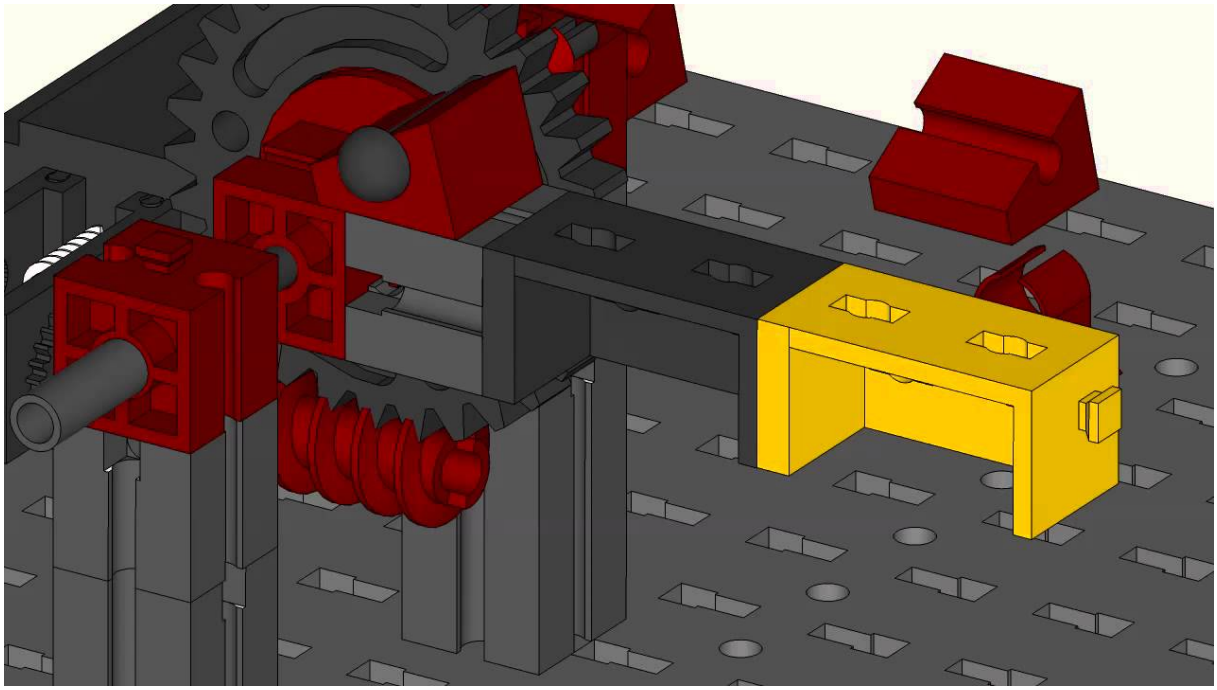

Figure 1: Constracting a barrier gate.

2. Connect the motor to digital outputs D7 and D6,
    - declare meaningful constants for output pins,
    - write a function `setIOpins()` for settig output pins and
    - include it in setup() function.
3. Write 3 time controlled functions for essential control of the barrier gate :
    - `moveGateUp();`
    - `moveGateDown();`
    - `stopTheGate();` and test this actions in setup() function.
4. Put this action of lifting and lowering the gate in For-loop and repeat it several times (e.g. 15 times).

Some sample code can be found in next example:

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

  [-] void setup() {
          pinMode(MOTOR_PIN_1, OUTPUT); //declaration of I/O pins
          pinMode(MOTOR_PIN_2, OUTPUT);

          moveGateUp();                 // Lift the barrier.
          delay(3000);                  // Wait a bit...
          moveGateDown();               // Lower the barrier.
      }
  [+] void loop() {
  [+] void stopTheGate(){
  [-] void moveGateUp() {
          digitalWrite(MOTOR_PIN_1, HIGH);
          digitalWrite(MOTOR_PIN_2, LOW);
          delay(1000);
          stopTheGate();
   }
  [+] void moveGateDown() {
```

1.2 Questions:

1. What is the time for raising and lowering the barrier? Compare it to your colleague's value.
2. What is the disadvantage of time controlled loop?

1.3 Summary

1.3.1 <++>

<++>

1.4 Issues:

1.4.1 <++>

<++>