ŘEŠENÍ ÚLOH

Úkol A)

```cpp
const int trigPin = 3;
const int echoPin = 4;
const int leftForward = 9;
const int leftBackward = 10;
const int rightForward = 5;
const int rightBackward = 6;

int duration = 0;
int distance = 0;

void setup() {
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(leftForward, OUTPUT);
  pinMode(leftBackward, OUTPUT);
  pinMode(rightForward, OUTPUT);
  pinMode(rightBackward, OUTPUT);
  Serial.begin(9600);
}

void loop() {
 digitalWrite(trigPin, HIGH);
 delayMicroseconds(10);
 digitalWrite(trigPin, LOW);

 duration = pulseIn(echoPin, HIGH);
 distance = duration * 0.034 / 2;

 if (distance < 20) {
   digitalWrite(leftForward, LOW);
   digitalWrite(leftBackward, HIGH);
   digitalWrite(rightForward, HIGH);
   digitalWrite(rightBackward, LOW);
   delay(100);
 }else{
   digitalWrite(leftForward, HIGH);
   digitalWrite(leftBackward, LOW);
   digitalWrite(rightForward, HIGH);
   digitalWrite(rightBackward, LOW);
 }
}
```