

## Robot sledující světlo

```
/*
keyestudio Mini Tank Robot v2.0
lesson 10
Light-following tank
http://www.keyestudio.com
*/
#define light_L_Pin A1 //define the pin of left photo resistor
#define light_R_Pin A2 //define the pin of right photo resistor
#define ML_Ctrl 13 //define the direction control pin of left motor
#define ML_PWM 11 //define the PWM control pin of left motor
#define MR_Ctrl 12 //define the direction control pin of right motor
#define MR_PWM 3 //define the PWM control pin of right motor
int left_light;
int right_light;
void setup(){
  Serial.begin(9600);
  pinMode(light_L_Pin, INPUT);
  pinMode(light_R_Pin, INPUT);
  pinMode(ML_Ctrl, OUTPUT);
  pinMode(ML_PWM, OUTPUT);
  pinMode(MR_Ctrl, OUTPUT);
  pinMode(MR_PWM, OUTPUT);
}
void loop(){
  left_light = analogRead(light_L_Pin);
  right_light = analogRead(light_R_Pin);
  Serial.print("left_light_value = ");
  Serial.println(left_light);
  Serial.print("right_light_value = ");
  Serial.println(right_light);
  if (left_light > 650 && right_light > 650) //the value detected photo resistor, go front
  {
    Car_front();
  }
  else if (left_light > 650 && right_light <= 650) //the value detected photo resistor, turn left
  {
    Car_left();
  }
  else if (left_light <= 650 && right_light > 650) //the value detected photo resistor, turn right
  {
    Car_right();
  }
  else //other situations, stop
  {
    Car_Stop();
  }
}
void Car_front()
{
  digitalWrite(MR_Ctrl,LOW);
  analogWrite(MR_PWM,200);
  digitalWrite(ML_Ctrl,LOW);
  analogWrite(ML_PWM,200);
}
void Car_left()
{
  digitalWrite(MR_Ctrl,LOW);
  analogWrite(MR_PWM,200);
  digitalWrite(ML_Ctrl,HIGH);
  analogWrite(ML_PWM,200);
}
```

```
void Car_right()
{
  digitalWrite(MR_Ctrl,HIGH);
  analogWrite(MR_PWM,200);
  digitalWrite(ML_Ctrl,LOW);
  analogWrite(ML_PWM,200);
}
void Car_Stop()
{
  digitalWrite(MR_Ctrl,LOW);
  analogWrite(MR_PWM,0);
  digitalWrite(ML_Ctrl,LOW);
  analogWrite(ML_PWM,0);
}
//*****
```