```
// A Dancing BEEST with Arduino
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//
// materials:
// "Arduino NANO",
// a motor driver IC "L298N"
//
// information:
// 1S LiPo battery (3.7V) can be used for 2 DC motors. Connect its positive to pin4 on L298N.
// 6P battery (9V) can be used for Arduino NANO. Connect its positive to VIN-pin on NANO.
// Your BEEST can step various dancings, if you change "void dance(){...}" below.
// Push reset button on NANO, your BEEST dances again.
// View the sites bellow to see more detail.
// http://www.instructables.com/id/Training-Theo-Jansens-Mini-BEEST/
// http://www.instructables.com/id/Training-Theo-Jansens-Mini-BEEST-JPN/


const byte pwmH  =  255;
const byte pwmM  =  215;
const byte pwmL  =  175;

void setup() {
  pinMode(11, OUTPUT); //Motor_A: pin7(L298N)
  pinMode(12, OUTPUT); //         pin5(L298N)
  pinMode(5, OUTPUT);  //PWM_A:   pin6(L298N)
  pinMode(6, OUTPUT);  //Motor_B: pin10(L298N)
  pinMode(7, OUTPUT);  //         pin12(L298N)
  pinMode(3, OUTPUT);  //PWM_B:   pin11(L298N)

  //Select Power. You can change it also in "void dance(){...}" below.
  analogWrite( 5, pwmM );
  analogWrite( 3, pwmM );

  delay(50);
  dance();
}

void loop() {
}

void forward() {
  digitalWrite( 11, HIGH );
  digitalWrite( 12, LOW );
  digitalWrite( 6, LOW );
  digitalWrite( 7, HIGH );
}
void stopping() {
  digitalWrite( 11, LOW );
  digitalWrite( 12, LOW );
  digitalWrite( 6, LOW );
  digitalWrite( 7, LOW );
}
void back() {
  digitalWrite( 11, LOW );
  digitalWrite( 12, HIGH );
  digitalWrite( 6, HIGH );
  digitalWrite( 7, LOW );
}
void left() {
  digitalWrite( 11, HIGH );
  digitalWrite( 12, LOW );
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```
  digitalWrite( 6, LOW );
  digitalWrite( 7, LOW );
}
void right() {
  digitalWrite( 11, LOW );
  digitalWrite( 12, LOW );
  digitalWrite( 6, LOW );
  digitalWrite( 7, HIGH );
}
void leftB() {
  digitalWrite( 11, LOW );
  digitalWrite( 12, HIGH );
  digitalWrite( 6, LOW );
  digitalWrite( 7, LOW );
}
void rightB() {
  digitalWrite( 11, LOW );
  digitalWrite( 12, LOW );
  digitalWrite( 6, HIGH );
  digitalWrite( 7, LOW );
}
void leftL() {
  digitalWrite( 11, HIGH );
  digitalWrite( 12, LOW );
  digitalWrite( 6, HIGH );
  digitalWrite( 7, LOW );
}
void rightR() {
  digitalWrite( 11, LOW );
  digitalWrite( 12, HIGH );
  digitalWrite( 6, LOW );
  digitalWrite( 7, HIGH );
}

void dance() {
  stopping();  delay(500);

  forward();  delay(1750);
  stopping();  delay(750);
  forward();  delay(1750);
  stopping();  delay(500);

  rightB();  delay(1000);
  stopping();  delay(250);
  leftB();  delay(1000);
  stopping();  delay(500);

  rightB();  delay(1000);
  stopping();  delay(250);
  leftB();  delay(1000);
  stopping();  delay(500);

  right();  delay(1500);
  stopping();  delay(250);
  rightB();  delay(1500);
  stopping();  delay(500);

  left();  delay(1500);
  stopping();  delay(250);
  leftB();  delay(1500);
  stopping();  delay(500);
```

```
  rightR();  delay(1750);
  stopping();  delay(250);
  leftL();  delay(1750);
  stopping();  delay(500);

  right();  delay(1500);
  stopping();  delay(150);
  left();  delay(1500);
  stopping();  delay(150);
  right();  delay(1500);
  stopping();  delay(150);
  left();  delay(1500);
  stopping();  delay(3000);
}
```