

Map z. B. von 0 – 1023 zu 0 – 255

```
void setup() {}  
  
void loop() {  
  int val = analogRead(0);  
  val = map(val, 0, 1023, 0, 255);  
  analogWrite(9, val);  
}
```

Random

```
long randomNumber;  
  
void setup() {  
  Serial.begin(115200);  
  randomSeed(analogRead(0));  
}  
  
void loop() {  
  randomNumber = random(300);  
  Serial.println(randomNumber);  
  delay(50);  
}
```

AnalogRead

```
int potPin = A0;  
int ldrPin = A1;  
  
void setup() {  
  Serial.begin(115200);  
}  
  
void loop() {  
  Serial.print(analogRead(potPin));  
  Serial.print("\t");  
  Serial.println(analogRead(ldrPin));  
}
```

DigitalRead

```
int ledPin = 13;  
int inPin = 7;  
int val = 0;  
  
void setup() {  
  pinMode(ledPin, OUTPUT);  
  pinMode(inPin, INPUT_PULLUP);  
}  
  
void loop() {  
  val = digitalRead(inPin);  
  digitalWrite(ledPin, val);  
}
```

Variablen-Typen

```
int 1, 2, 3, 100  
-32768 – 32767
```

```
long 1, 2, 3, 100  
-2.147.483.648 – 2.147.483.647
```

```
float 1.5, 19,2  
-3.4028235E+38 – 3.4028235E+38
```

```
char 'a', 'b', 'c'
```

```
string "Hello world!"
```

```
bool true, false
```

Interrupt

```
const byte ledPin = 13;  
const byte interruptPin = 2;  
volatile byte state = LOW;  
  
void setup() {  
  pinMode(ledPin, OUTPUT);  
  pinMode(interruptPin, INPUT_PULLUP);  
  attachInterrupt(digitalPinToInterrupt(  
    interruptPin), blink, CHANGE);  
}  
  
void loop() {  
  digitalWrite(ledPin, state);  
}  
  
void blink() {  
  state = !state;  
}
```

Array

```
int myInts[6];  
int myPins[] = {2, 4, 8, 3, 6};  
int mySensVals[6] = {2, 4, -8, 3, 2};  
char message[6] = "hello";
```

