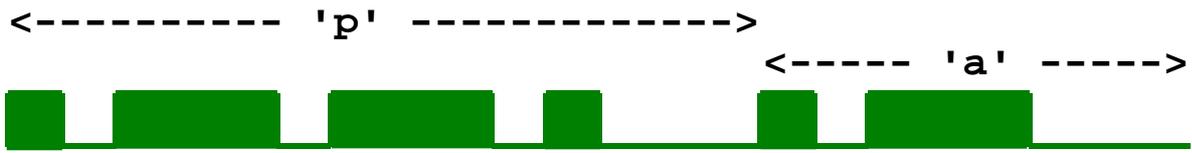
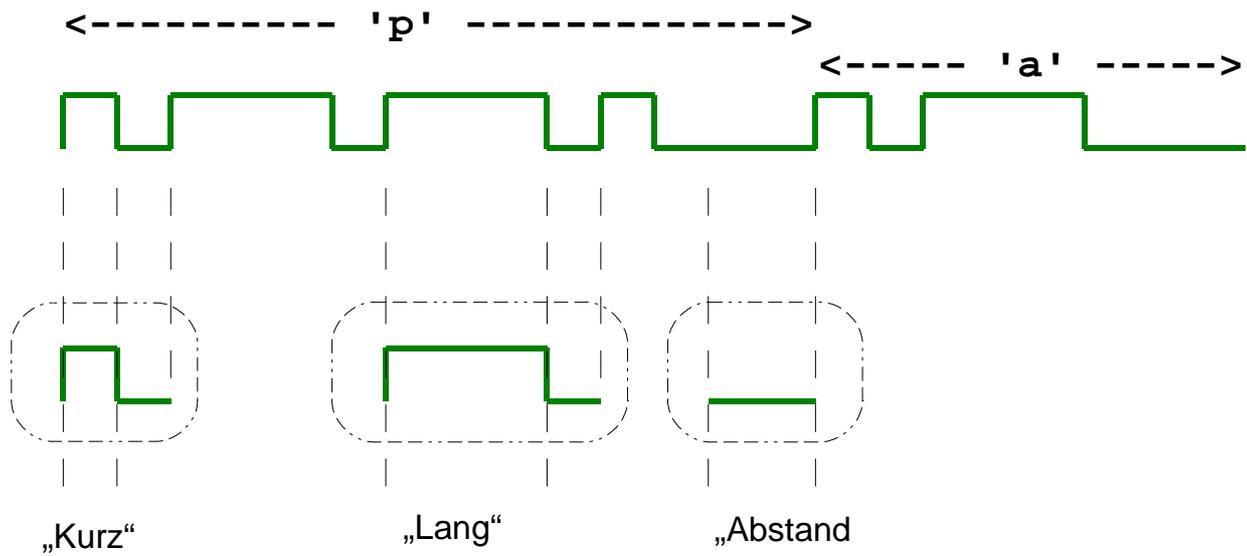


Analyse von Morsezeichen

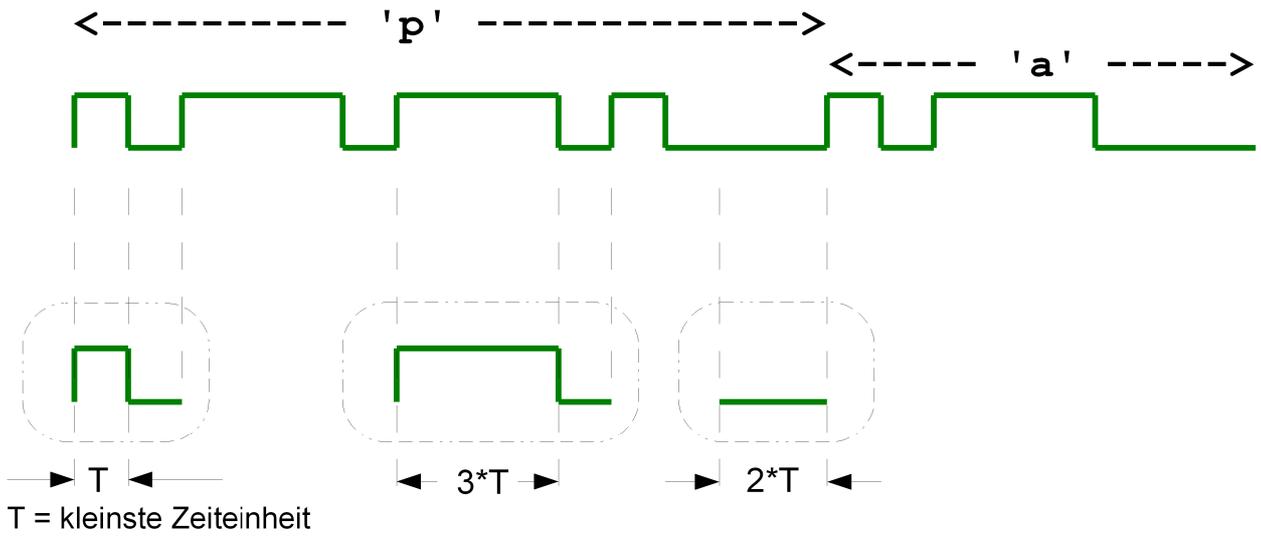


Analyse anhand der Buchstaben „pa“

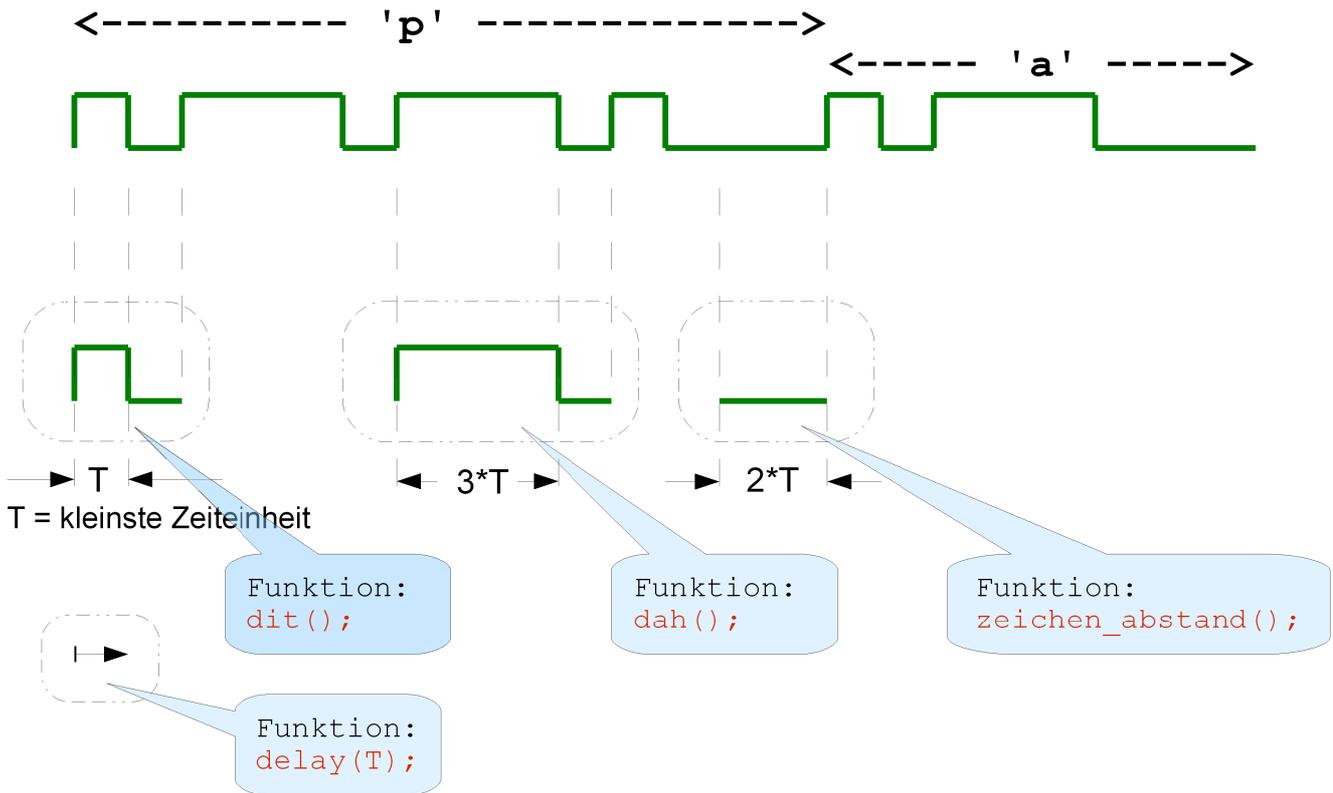
Zerlegen in Einzelemente



Zeiteinheiten



Benennen von Programm-Funktionen



Arduino-Programm

```
//variablen:  
int pin_ton = 4;  
int hertz = 650;  
#define WPM 12  
int t_dit = 1200 / WPM;  
  
// Initialisierung:  
void setup()  
{  
}
```

```
//Hauptprogramm  
void loop()  
{  
buchstaben_abstand();  
dah();//c  
did();  
dah();  
did();  
buchstaben_abstand();  
  
dah(); //q  
dah();  
did();  
dah();  
buchstaben_abstand();  
wort_abstand();  
delay(1000);  
}
```

```
void dit()  
{  
tone(pin_ton,hertz);  
delay(t_dit);  
noTone(pin_ton);  
delay(t_dit);  
}
```

```
void dah()  
{  
tone(pin_ton,hertz);  
delay(t_dit*3);  
noTone(pin_ton);  
delay(t_dit);  
}
```

```
void buchstaben_abstand()  
{  
delay(t_dit*2);  
}
```

```
void wort_abstand()  
{  
delay(t_dit*4);  
}
```

Komplettes Bakenprogramm

- hier Beispiel nur mit Tonausgabe
- Hauptprogramm verkürzt
- Wort-Abstand hier 5 Zeiteinheiten