ŘEŠENÍ ÚLOH

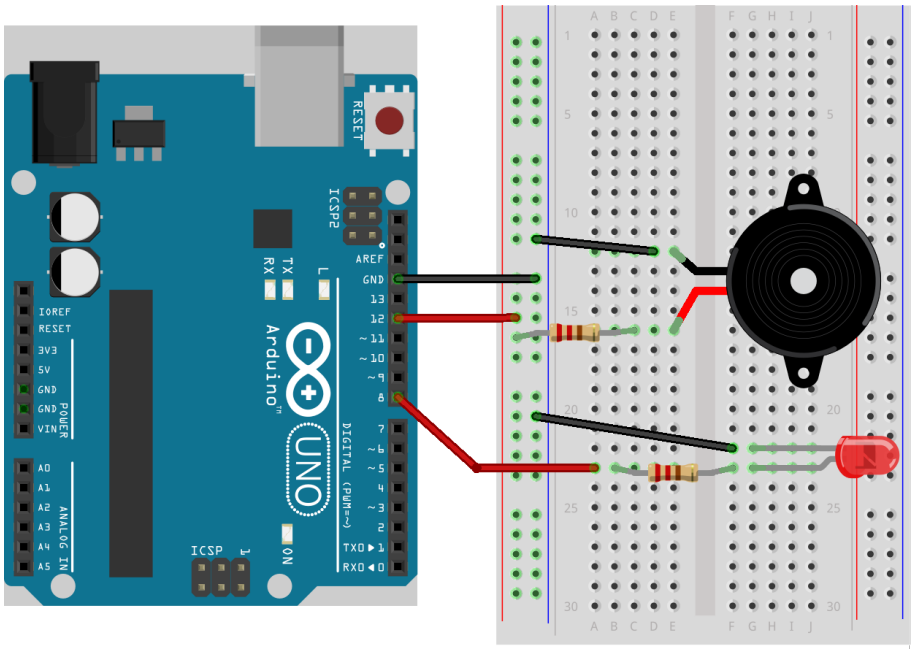
Úkol A)

```
const int pinBzucak=13;

void setup() {
   pinMode(pinBzucak, OUTPUT);
}

void loop() {
   // Ton C
   tone(pinBzucak, 261);
   delay(1000);
   noTone(pinBzucak);
   delay(1000);
   // Ton D
   tone(pinBzucak, 294);
   delay(1000);
   noTone(pinBzucak);
   delay(1000);
   // Ton E
   tone(pinBzucak, 329);
   delay(1000);
   noTone(pinBzucak);
   delay(1000);
   // Ton F
   tone(pinBzucak, 349);
   delay(1000);
   noTone(pinBzucak);
   delay(1000);

   // Další část kódu se neustále opakuje. Mění se pouze
   // frekvence, které jsou parametrem funkce tone().

}
```

Úkol B)

```
// Uvedeny kód ukazuje část melodie Jingle Bells.
// Poradi tonu je: E E E P, E E E P, E G C D E P
// Symbol P značí pauzu a bude mít hodnotu 0

const int pinBzucak=13;

void setup() {
   pinMode(pinBzucak, OUTPUT);
}

void loop() {
   tone(pinBzucak, 329);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 329);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 329);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 0);  delay(1000);

   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 329);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 329);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 329);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 0);  delay(1000);

   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 329);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 392);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 261);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 294);  delay(1000);
   noTone(pinBzucak); delay(100);
   tone(pinBzucak, 329);  delay(1000);
   tone(pinBzucak, 0);  delay(1000);

}
```

Úkol C)



```
// Ukázka kódu pro mluvícího robota

const int pinLed=8;           // pin pro LED
const int pinBzucak=12;         // pin pro bzucak

void setup() {
   pinMode(pinLed, OUTPUT);
   pinMode(pinBzucak, OUTPUT);
}

void loop() {
   tone(pinBzucak, 433);         // neustale se opakujici
   digitalWrite(pinLed, HIGH);  // blok kódu, kde se dale
   delay(100);                   // meni frekvence tonu
   noTone(pinBzucak);            // a pauza mezi tony
   digitalWrite(pinLed, LOW);
   delay(100);

   tone(pinBzucak, 1033);
   digitalWrite(pinLed, HIGH);
   delay(300);
   noTone(pinBzucak);
   digitalWrite(pinLed, LOW);
```