

# PICAXE BASICS



## GOSUB Go to Subroutine

**Syntax:** `gosub address`

Address is a label which says where to gosub to.

### Code

```
main:
  readadc 1,b1
  ;debug b1
  nap 3

  if b1 < 50 then
    gosub tune1
  else
    gosub blink
  endif
  goto main

tune1:
  tune 1,5,(1,2,3,4,5)
  return
blink:
  pulsout 4, 20
  return
```

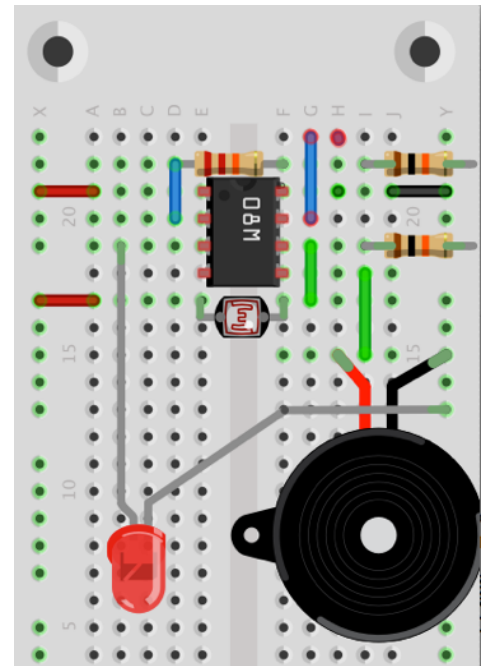
### Explained

- **Gosub tune1** Takes the code to the sub procedure "tune1:" until it is told to "return" where it returns to the line after **Gosub tune1**.
- **Gosub blink** Takes the code to the sub procedure "blink:" until it is told to "return" where it returns to the line after **Gosub blink**.
- **Pulsout 4,20** Syntax: PULSOUT pin,time means a pulse of current goes out of pin4 for 20 milliseconds.

### Tinker

- 1 Change the **tune** or use the **sound** or **play** commands
- 2 Change the **Pulsout time** and the **Nap time**
- 3 Change the trigger value in the **if...then** statement

### Circuit



## NOTES

- 1 Go to sub procedure at **label**, then '**return**' to code at a later point.
- 2 The compiler also accepts '**call**' as a pseudo for '**gosub**'.
- 3 Every **gosub** command **MUST** be matched by a **return** command. Do not confuse with the '**goto**' command which is a permanent jump to a new program location.