

If Statement

An 'If' statement is used to test a condition and then execute a piece of code if the condition is true.

```
If (test case to true) then
{
  then execute this
}
--> if not then do nothing at all and continue.
```

for example:

```
value = random(5);
if (value < 2) {
  myAlpha = 50;
}
```

If Else Statement

An 'If Else' statement makes sure that there is something to execute even when the first condition is false. It gives options to true and false.

```
if (room temperature is less than the thermostat dial setting) then
  turn the heater on.
else
  turn the heater off.
}
```

for example:

```
value = random(5);
if (value < 2{
  myAlpha = 50;
} else {
  myAlpha = 100;
}
```

Nested If Statement

Sometime a condition can have more than one true or false comparison. This is called a nested if statement.

```
if (it's Friday night and money in my wallet is greater than R50) then
  if (there's a good movie on at the local Cinema) then
    Go see the movie.
  else
    Go dancing in a club.
else
  Stay at home.
```

for example:

```
value = random(5);
if (value < 2 && myAlpha > 50) {
  if (color != black){
    my Alpha = 0;
  } else {
    myAlpha = 50;
  } else {
    myAlpha = 100
  }
}
```

Else If Else vs Switch Statements

Else If Else can be use full when you want to test anouther condition against a false outcome. But you should carefull as they can be tedious if not used properly. In the case below a Switch statement can be put to better use here.

```
if (keyPressed == true && key == 's') {
  saveFrame("yourName.jpg");
} else if (keyPressed == true && key == 'r') {
  background(255);
} else if (keyPressed == true && key == 'q') {
  exit();
}
```

This switch statement is wrapped in an If statement.

```
if (keyPressed == true) {
```

```
  switch( key ) {
    case 's':
      saveFrame("yourName.jpg");
      break;
    case 'r':
      background(255);
      break;
    case 'q':
      exit();
      break;
    default:
      println("Unknown key command: ", key);
  } // end switch
}
```

**Any changble variable
can be passed to switch.**

**In this case it check for
matching values for "key".**