

Extracting the value of average points of pictures. (initialization cells give the pictures used as examples)

```
poi[im_] := Flatten[Table[
  {i [ImageDimensions[im][[1]] / 8], j [ImageDimensions[im][[1]] / 8]}, {i, 7}, {j, 7}], 1]
points[im_] := Flatten[Table[{i [ImageDimensions[im][[1]] / 8],
  j [ImageDimensions[im][[1]] / 8]}, {i, {1, 3}}, {j, {1, 3}}], 1]
f[x_] := [10 x]
ext[im_] := Table[Append[
  Take[Map[f, ImageValue[Blur[im, ImageDimensions[im][[1]] / 16], poi[im]], {2}][[i]],
  3], i], {i, 49}]
data[im_] := Map[f, ImageValue[Blur[im, ImageDimensions[im][[1]] / 16], points[im]], {2}]
```

Making a melody out of a single image.

```
melody[im_] := Sound[Table[SoundNote[2 d[[1]] - 5,
  {d[[4]] / 4, d[[4]] / 4 + d[[2]] / 2}, SoundVolume → 0.2 + d[[3]] / 2], {d, ext[im]}]]
melody[im1]
melody[im2]
melody[im3]
```

Different versions of turning a gif into a melody. Note that the third version uses a pseudo - random number generator for variety.

```
synth1[gif_] := {Sound@Table[Sound[Table[
  SoundNote[7 d[[1]] - 5, {-d[[2]] / Length[gif], 2 d[[2]] / Length[gif]},
  SoundVolume → 0.25 + d[[3]] / 4], {d, data[gif][[i]]}], {i, 1, Length[gif]}],
  ListAnimate[gif]}
synth2[gif_] := {
  Sound@Table[Sound[Table[
    SoundNote[5 d[[1]] - 20, {0, d[[2]] / 30}, "Sweep", SoundVolume → 0.3 d[[3]],
    {d, data[gif][[i]]}], {i, 1, Length[gif]}],
  ListAnimate[gif]}

raw[im_] := ImageValue[Blur[im, ImageDimensions[im][[1]] / 16], points[im]]
synth3[gif_] := {
  Sound@Table[Sound[Table[
    SoundNote[RandomInteger[{-5, 5}] [10 r[[1]]] - RandomInteger[{1, 20}],
    {r[[2]] / 4, r[[2]] / 2}, "Halo", SoundVolume → r[[3]],
    {r, raw[gif][[i]]}], {i, 1, Length[gif]}],
  ListAnimate[gif]}

synth1[gif1]
synth1[gif2]
synth1[gif3]
synth2[gif1]
```

[synth2\[gif2\]](#)

[synth2\[gif3\]](#)

[synth3\[gif1\]](#)

[synth3\[gif2\]](#)

[synth3\[gif3\]](#)
