

Signature Series

Use the “Browse” button to upload a picture of your signature or other shape! Use a dark, thin pen or pencil on a light background.

In your drawing, try to connect the start and end points so you get a nice, continuous curve.

```
In[ ]:= Manipulate[DynamicModule[{defaultImage = images["JohnHancock"], image, processFunc,
  points, pointsTour, sample, coefObject, circleObject, circleObjectTrunc, innerMan},
  image = If[imagePath === None, defaultImage,
    processFunc = ImageResize[ImageAdjust[#, {1, .5}], 500] &;
    processFunc@Import[imagePath]];
  points = ImageLinePoints@image;
  pointsTour = MakeTour[points];
  sample =
    UniformResample[PrependIndices[#, "ParametrizationType" → "EuclidianDistance"],
      500, "ParametrizationType" → "Linear"] &@pointsTour;

  innerMan = Manipulate[
    coefObject = CnFFT[MakeComplex[#[ "SamplePoints"]], numSpinners] &@sample;
    (*Takes maxSpinners circles by largest radius*)
    circleObject = ApproxFunction[#2["CoefficientFunction"], t, Length@#1[
      "SamplePoints"], #2["CoefficientList"], "Sort" → False] &[sample, coefObject];
    EpicyclePlot[circleObject, {t, 0, $T, sample["Length"]}, "Spinners" → True,
      "NumSpinners" → 10, "PlotRange" → "Plot",
      {{$T, sample["Length"], "Time"}, 0, sample["Length"]},
      {{numSpinners, 10, "Number of Spinners: "}, 1, 200, 1},
      ContinuousAction → True, TrackedSymbols => {$T, numSpinners}];

  Grid[{{image, ListLinePlot[pointsTour, PlotRange → All, AspectRatio → Automatic]},
    {innerMan, SpanFromLeft}}, Alignment → Center,
    Frame → All, FrameStyle → Gray, Spacings → {Offset[2], Offset[2]}]
],
{{imagePath, None, "Select Image: "}, FileNameSetter[###] &},
SaveDefinitions → True, TrackedSymbols => {imagePath},
Initialization =>
  (Get["G:\\My Drive\\Projects\\FourierDisplay\\Software\\FourierPack.wl"];
  images["JohnHancock"] = John Hancock ; )]
```

Out[]=

