

```

Manipulate[ParametricPlot[{{(1 - t) u / 3 + Sin[u t], Cos[u t] - 1}, {u, -π, π}], {t, 0.01, 1}]
Manipulate[ParametricPlot3D[
  {(1 - t) u / 3 + Sin[u t], -Cos[u t] - 1, v}, {u, -π, π}, {v, -π, π}], {t, 0.01, 1}]
Manipulate[ParametricPlot3D[
  {(R + r ((1 - t) θ + Cos[t θ])) Cos[φ], (R + r ((1 - t) θ + Cos[t θ])) Sin[φ], r Sin[θ]} /.
  R → 3 /. r → 1, {θ, -π, π}, {φ, -π, π}], {t, 0, 1}]
Manipulate[ParametricPlot3D[
  {(R - r Cos[θ t]) Cos[φ], (R - r Cos[t θ]) Sin[φ], (1 - t) θ + r Sin[t θ]} /. R → 2 /. r → 1,
  {θ, -π, π}, {φ, -π, π}, PlotRange → {{-π, π}, {-π, π}, {-π, π}}, {t, 0, 1}]
[{{(1 - t) u / 3 + Sin[u t], -Cos[u t] - 1, v}
Manipulate[ParametricPlot3D[
  {(1 - t) u + Sin[u t], -Cos[u t] - 1, v}, {u, -π, π}, {v, -π, π}], {t, 0.01, 1}]
{(1 - t) u + Sin[u t], -Cos[u t] - 1, v}
Manipulate[ParametricPlot3D[
  {
    (R - r ((1 - a) + a * Cos[θ t])) ((1 - a) φ + Sin[a φ]),
    (R - r Cos[t θ]) (-Cos[a φ]),
    ((1 - t) θ + r Sin[t θ])
  }
  ] /. R → 2 /. r → 1, {θ, -π, π}, {φ, -π, π},
  PlotRange → {{-3 π, 3 π}, {-π, π}, {-π, π}}, {a, 0, 1}, {t, 0, 1}]
π / 4
Manipulate[ParametricPlot3D[
  {
    (R - (r - a z) ((1 - a) + a * Cos[θ t])) ((1 - a) φ + Sin[a φ]),
    (R - (r - z) Cos[t θ]) (-Cos[a φ]),
    ((1 - t) θ + (r - z) Sin[t θ])
  }
  ]
  ] /. R → 2 /. r → 1, {θ, -π, π}, {φ, -π, π}, PlotRange → {{-π, π}, {-π, π}, {-π, π}},
  {a, 0, 1}, {t, 0, 1}, {z, -1, 1}]
PolarWarp[x_, y_, z_,

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Manipulate[ParametricPlot3D[
  {
    (R - r Cos[θ t]) ((1 - a) φ + Sin[a φ]),
    (R - r Cos[t θ]) (-Cos[a φ]),
    (1 - t) θ + r Sin[t θ]
  } /. R → 2 /. r → 1, {θ, -π, π}, {φ, -π, π},
  PlotRange → {{-1.2 π, 1.2 π}, {-π, π}, {-π, π}}, {a, 0, 1}, {t, 0, 1}]

Manipulate[ParametricPlot3D[
  {(R - r Cos[θ t]) Cos[φ], (R - r Cos[t θ]) Cos[φ], (1 - t) θ + r Sin[t θ]} /. R → 2 /. r → 1,
  {θ, -π, π}, {φ, -π, π}, PlotRange → {{-π, π}, {-π, π}, {-π, π}}, {t, 0, 1}]

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