```
f[y_] := {-\sin[y[[2]] - b] * F/d, y[[1]], y[[4]],}
  F * er[b] + d * y[[1]] ^ 2 * er[y[[2]]] + Sin[y[[2]] - b] * F * ea[y[[2]]]
er[alpha_] := {Cos[alpha], Sin[alpha]}; ea[alpha_] := {-Sin[alpha], Cos[alpha]};
Pos[y_] := y[[3]] + d * er[y[[2]]];
n = 3; h = 0.1; d = 1; b = Pi / 180 * (-190); F = 1; Y = \{0, 0.1, \{0, 0\}, \{0, 0\}\};
P = Table[0, {21}]; P[[1]] = Pos[y];
For [i = 0, i < 20 * n, i++,
  y += h * f[y];
  P[[Floor[i/n] + 2]] = Pos[y];
ListPlot[P, AxesOrigin \rightarrow {0, 0}, PlotRange \rightarrow All]
                                                 3.0
                                                 2.5
                                                 2.0
                                                 1.5
                                                 1.0
   -15
                   -10
                                   - 5
P
\{0.66264, 0.841249\}, \{0.717014, 0.841097\}, \{0.781331, 0.840898\}, \{0.855579, 0.840653\},
 \{0.939749, 0.840368\}, \{1.03383, 0.840055\}, \{1.13782, 0.839729\}, \{1.2517, 0.839406\},
 \{1.3755, 0.839109\}, \{1.50921, 0.838855\}, \{1.65285, 0.838666\}, \{1.80645, 0.838554\},
 \{1.97002,\,0.838528\},\,\{2.1436,\,0.838593\},\,\{2.32721,\,0.838742\},\,\{2.52087,\,0.838965\}\}
```

Exit[];