$m := 0.5$ $c := 500$ $k := 25$ $s := 0.01$ $\sigma := 5.7 \cdot 10^{-8}$

$tA := 300$ $tR := 600$ $n := 120$ $x_0 := tA$

$$l(t) := s \cdot \left(k \cdot (t - tA) + \sigma \cdot \left(t^4 - tA^4\right)\right)$$

$$h(t) := \begin{cases} \text{if } t \geq tR \\ \quad 0 \\ \text{else} \\ \quad 1 \end{cases}$$

$p0 := 800$
$p1 := 500$
$c1 := 800$
$m1 := 1$

$$D0(t, y) := \begin{bmatrix} \dfrac{\left(p0 \cdot h\left(y_0\right) - l\left(y_0\right)\right)}{c \cdot m} \end{bmatrix}$$

$$D1(t, y) := \begin{bmatrix} \dfrac{\left(p1 \cdot h\left(y_0\right) - l\left(y_0\right)\right)}{c \cdot m} \end{bmatrix}$$

$$D2(t, y) := \begin{bmatrix} \dfrac{\left(p0 \cdot h\left(y_0\right) - l\left(y_0\right)\right)}{c1 \cdot m} \end{bmatrix}$$

$$D3(t, y) := \begin{bmatrix} \dfrac{\left(p0 \cdot h\left(y_0\right) - l\left(y_0\right)\right)}{c \cdot m1} \end{bmatrix}$$

$Z_0 := \text{rkfixed}\left(x_0, 0, n, n, D0\right)$

$Z_1 := \text{rkfixed}\left(x_0, 0, n, n, D1\right)$

$Z_2 := \text{rkfixed}\left(x_0, 0, n, n, D2\right)$

$Z_3 := \text{rkfixed}\left(x_0, 0, n, n, D3\right)$

$$Z = \begin{bmatrix} [121 \times 2] \\ [121 \times 2] \\ [121 \times 2] \\ [121 \times 2] \end{bmatrix}$$