classEnvironment

- g gravitation
- wind
- time mesh
- start and end condition

${\it classQuattrocopter}$

In this class all physical parameters discribing a specific quattrocopter are stored.

${\bf classDyn}$

- ullet environment
- model
- \bullet control
- state

Dynamics depend on the environment, model, control and state. For further information on implementation see the other figure.

$$\begin{pmatrix} c(t_1) \\ c(t_2) \\ \vdots \\ c(t_{end}) \end{pmatrix}$$

where $c(t_i) \in \mathbb{R}^{\#control}$ is the control at timestep i

State

$$\begin{pmatrix} s(t_1) \\ s(t_2) \\ \vdots \\ s(t_{end}) \end{pmatrix}$$

where $s(t_i) \in \mathbb{R}^{\# states}$ is the state at timestep i

classDyn (abstract) \bullet environment model • control \bullet state **Abstract Methods** \bullet dot \bullet dotD \bullet dotDD Implemented Methods \bullet testdotD • testdotDD erbt von ${\bf classDynGen~(generated)}$ • F • FD • FDD • isEmpty flags erbt von ${\bf classDynImpl}$ This class is actual initialized in script.m ${\bf Methods}$ \bullet dot

 \bullet dotD

 \bullet dotDD