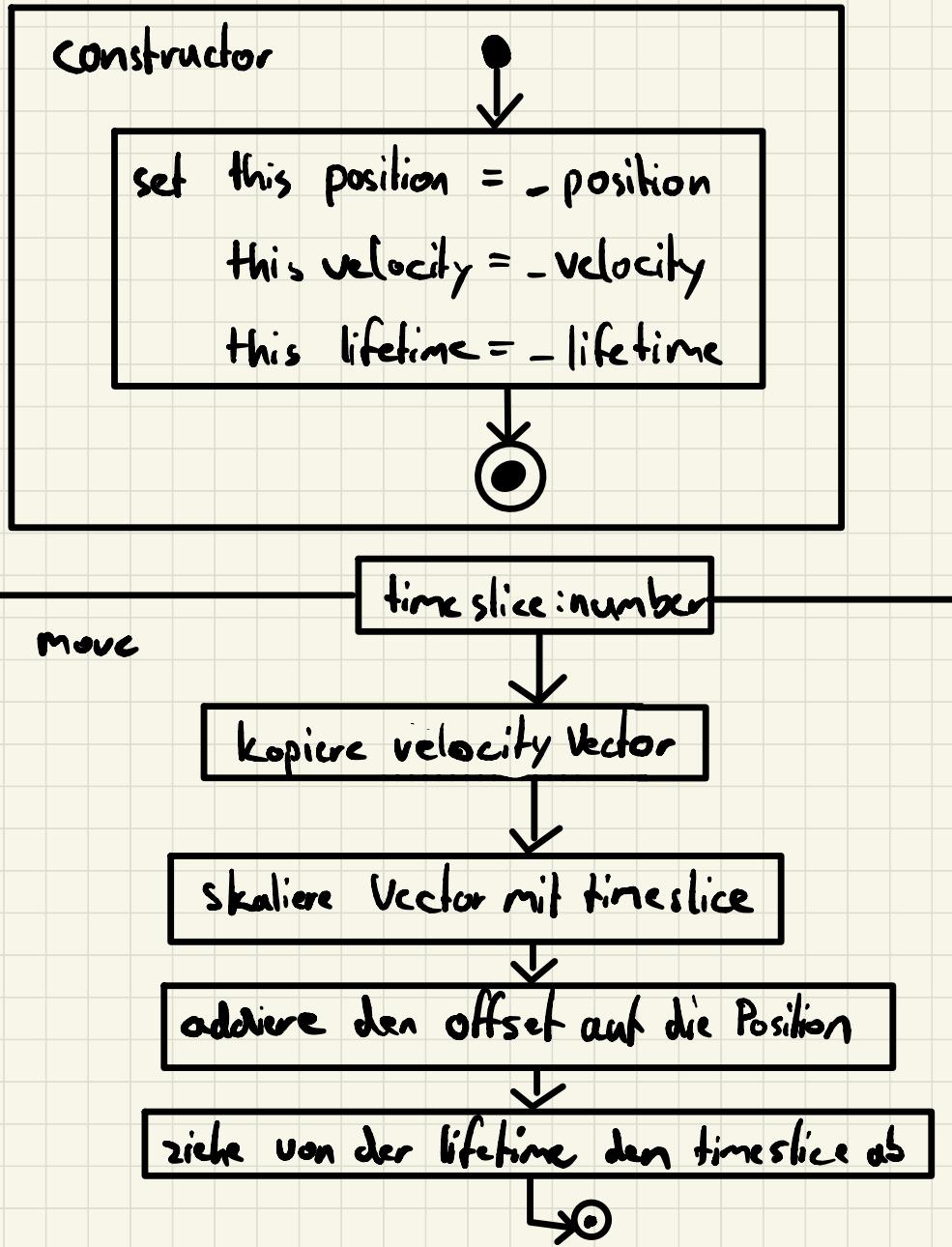


Robert Schindler & Henning Pils Activity Diagram

Moveable



Particle

Constructor

- position: Vector
- velocity: Vector
- color : string
- size: number
- lifetime : number

super (-position, -velocity, -lifetime)

Set this color and size to -color and -size

move

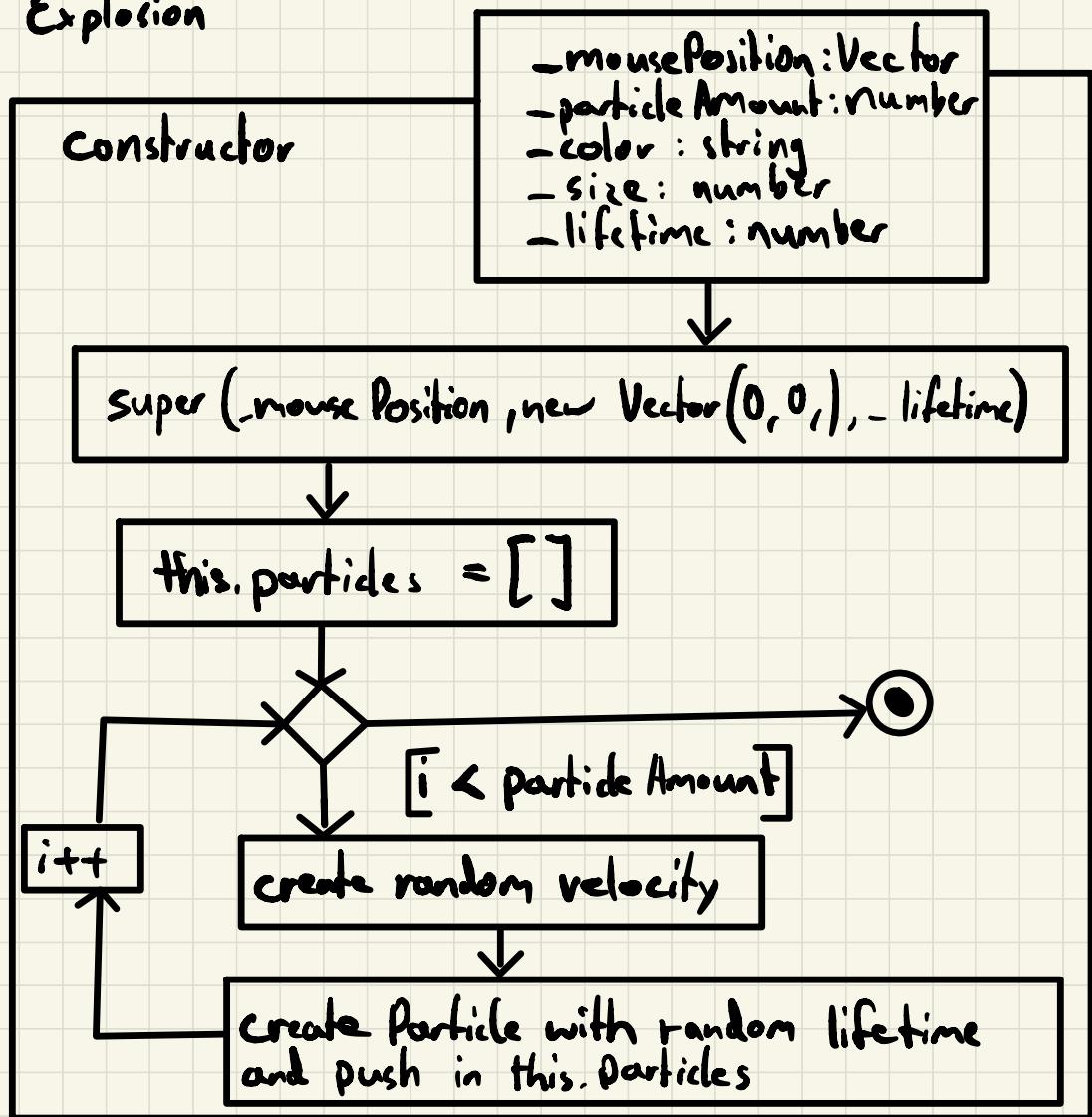
super move (refreshrate / 1000) ←

this.draw ←

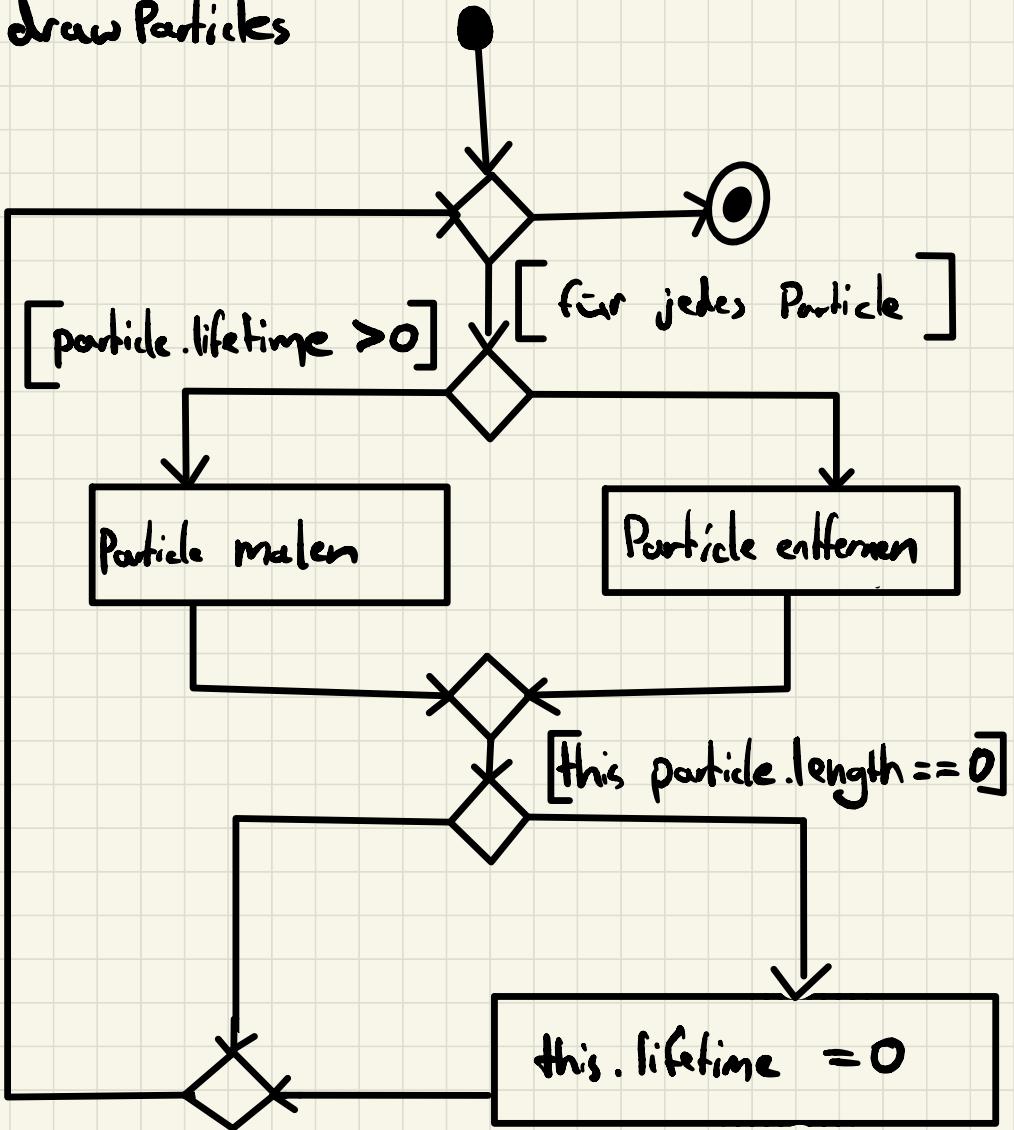
draw

begin Path arc with this position, size and color

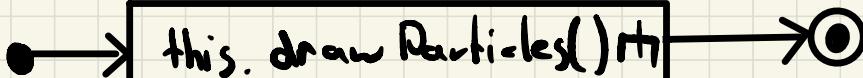
Explosion



draw Particles



draw



Vector

constructor

-x : number
-y : number

this.set(-x, -y) 

set

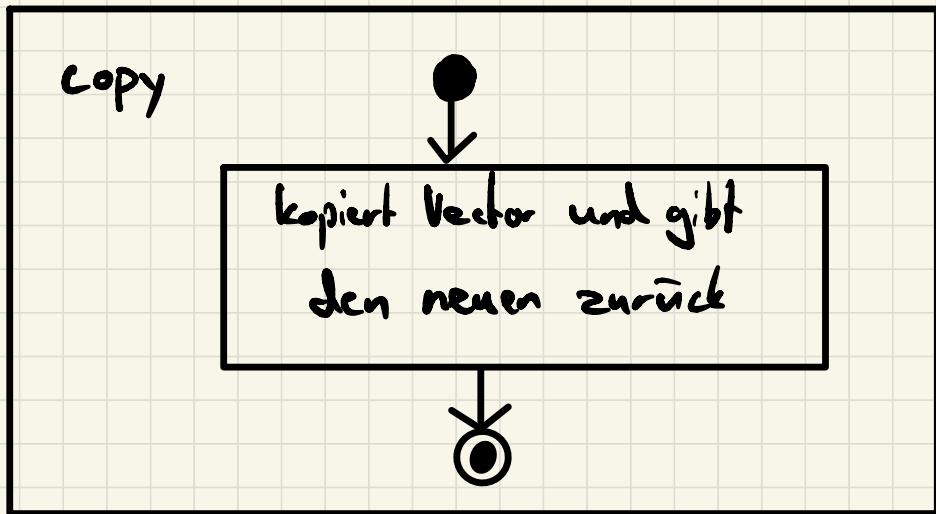
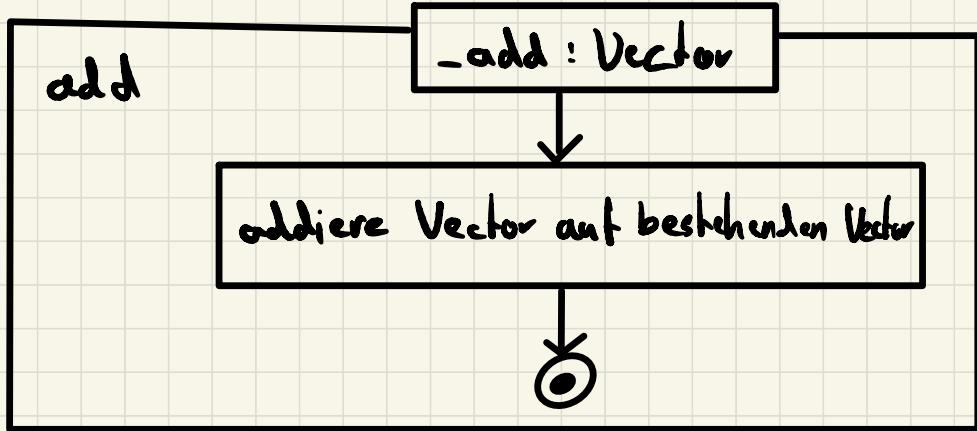
-x : number
-y : number

setze neue Werte für den Vector 

scale

-factor: Number

skaliert die Position 



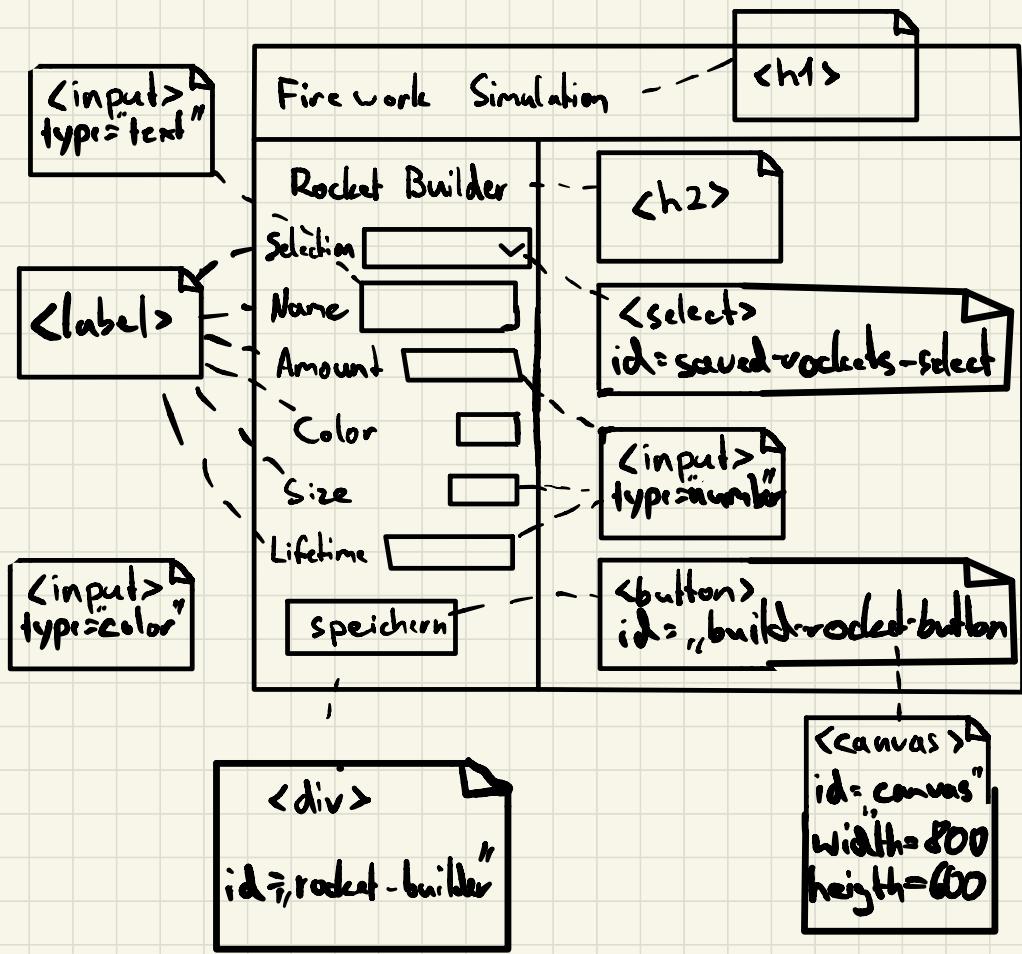
Anleitung Interaktion

Auf der Feuerwerks Simulation angekommen erhält der User eine vorgefertigte Rakete. Diese kann er im Baukasten aber auch anpassen.

Folgende Möglichkeiten bietet dieser dem User:
- Farbe, Anzahl Partikel, Partikelgröße, Dauer
Außerdem kann er seine Rakete speichern, dafür ist ein Name notwendig.

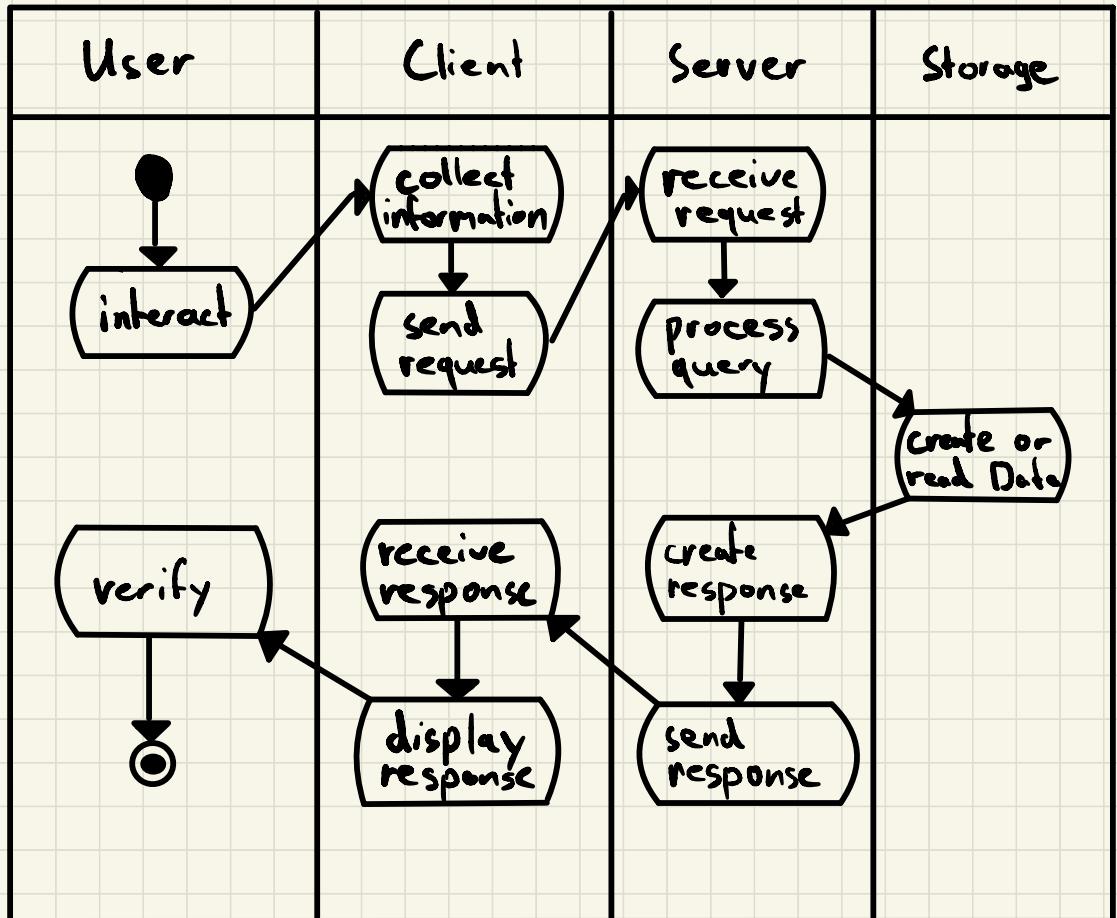
Um erfolgreich zu speichern darf außerdem die Partikelanzahl nicht höher als 1000 sein, die Partikelgröße nicht höher als 5 sein und die Dauer nicht höher als 5 sein.

Per Klick auf das Canvas startet der User eine Rakete an der Stelle des Klicks. Im Select Element kann man eine bisher gespeicherte Rakete abrufen.



Robert Schindler & Henning Pils

Swimlane Diagram



ClassDiagram: Endgabe Teuerwesensimulator

Canva: Renderingforen

Vector

position: Vector
velocity: Vector
lifetim: number

+ x: number
+ y: number
set(x: number, y: number): void
scale(factor: number): void
add(o: Vector): void
copy(t: Vector): void

constructor(position: Vector, velocity: Vector, lifetim: number): void
move(deltaTime: number): void

Particle

color: string;
size: number

constructor(position: Vector, particle: Particle, color: string, size: number, lifetime: number): void
draw(): void
drawParticles(): void

particles: Particle[] = [];

constructor(position: Vector, velocity: Vector, color: string, size: number, lifetime: number): void
move(deltaTime: number): void
draw(): void

Diagram

Mein

button

Globale Variablen

↓

order CRC2

expand context

export refreshRate

get serverRadels

get name Radel

get RadelCount

get RadelIndex

get RadelName

get RadelSize

get RadelType

get RadelValue

get RadelWidth

get RadelX

get RadelY

get RadelZ

get RadelZIndex

get RadelZOrder

get RadelZValue

get RadelZWidth

get RadelZHeight

get RadelZDepth

↓

Activity Diagram: EA2 Radel

handle load

load

select

tiny

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Database

saveRocket

rocketRocket

+
+

↓

Kreiere Query mit Daten

responseText = Query "Fisch"

If response enthält "success"

else
false
alert ("Fehler") → ○
(Stern)

createExplosive

event: MouseEvent

buildRocketButton [event.click]

```
let name = String = value aus Input
let numCirclesNumber = value
let colorString = value
let sizeNumber = value
let sizeNumberU = value u
let sizeNumberV = value v
let explosion: Explosive new Explosive()
explosives.push(explosion)
```

addRocket

rocket: Rocket

```
rockets.push(rocket)
showRocketstoSelect()
```

Name vorhanden

+ true
↓
↓ size > 5 || lifetime > 5 || numCircles > 1000
false alert

```
addRocket (Neue Rakete mitlegen)
saveRocket()
```

setInputValueToSelectedRocket

Object Rocket

Set-
ze HTML
input Field
mit
Rocket
Einstellung

saved
rockets-select

change

setze selected Rocket

= ausgewählte Rocket

[newer
false]
[new selected Rocket existent]

newer

true

setInputValuesSelectedRocket(selectedRocket)!!