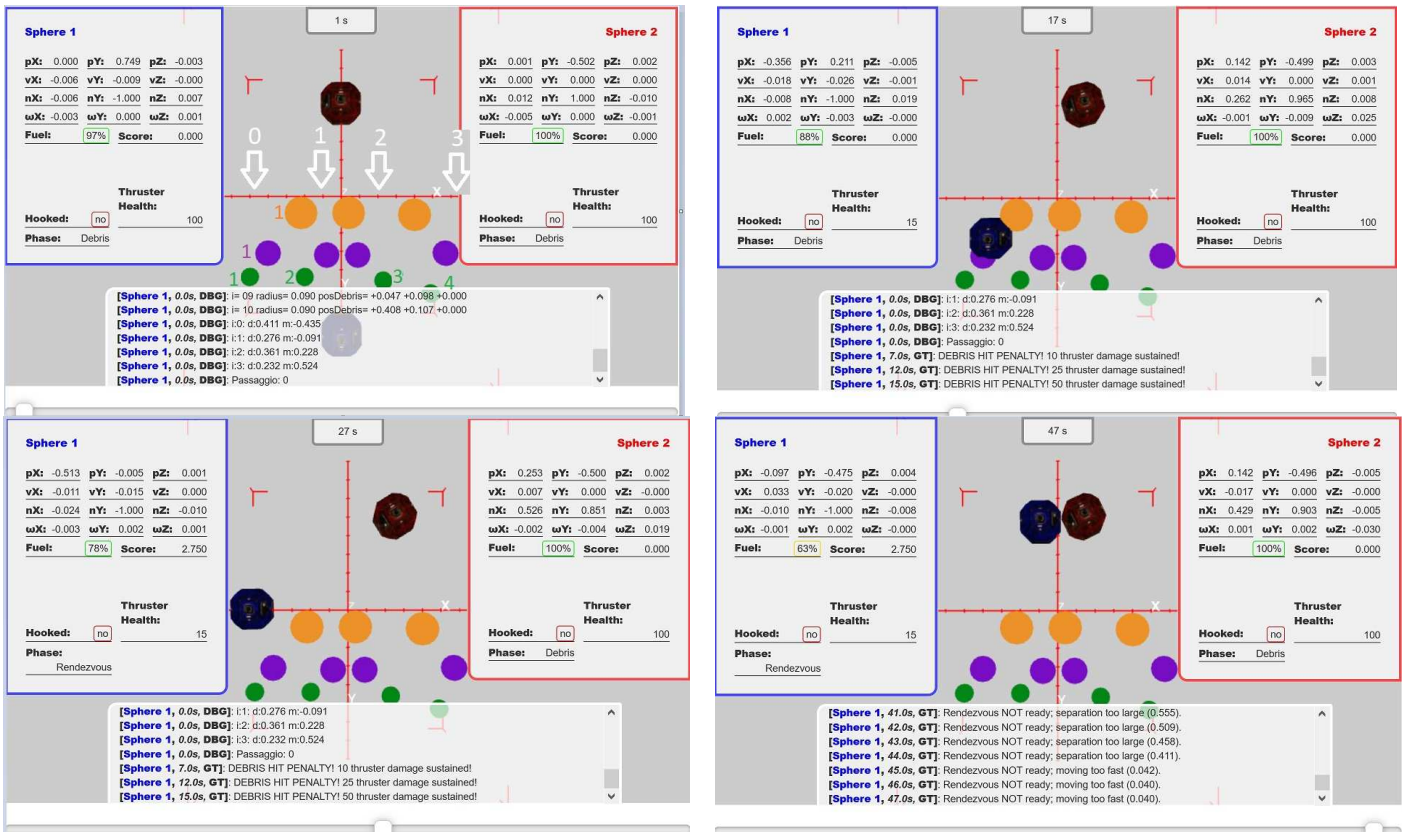


PRIMA simulazione programma 2018_2D_beta_OD_MV_1.cpp

UNA Simulazione **Sfortunata (?)**: BLUE passa dal varco 0 urtando **Green2** (-10% Health), **Purple1** (-25%) e **Orange1** (-50%)



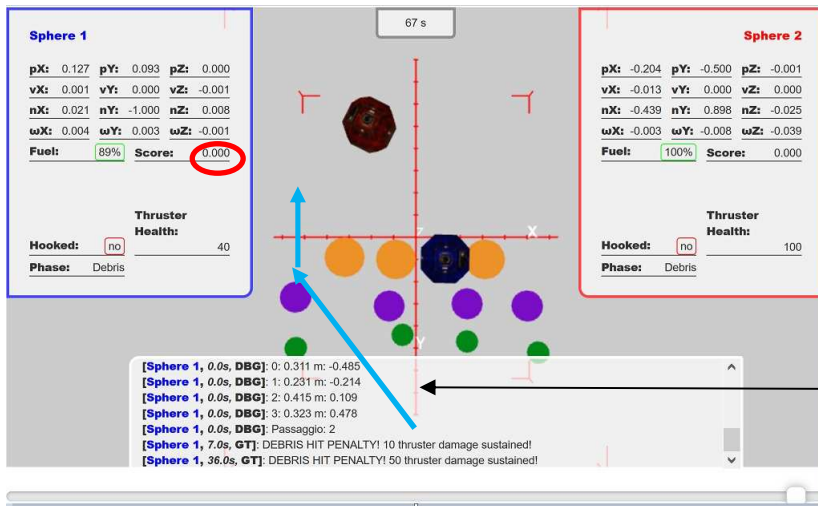
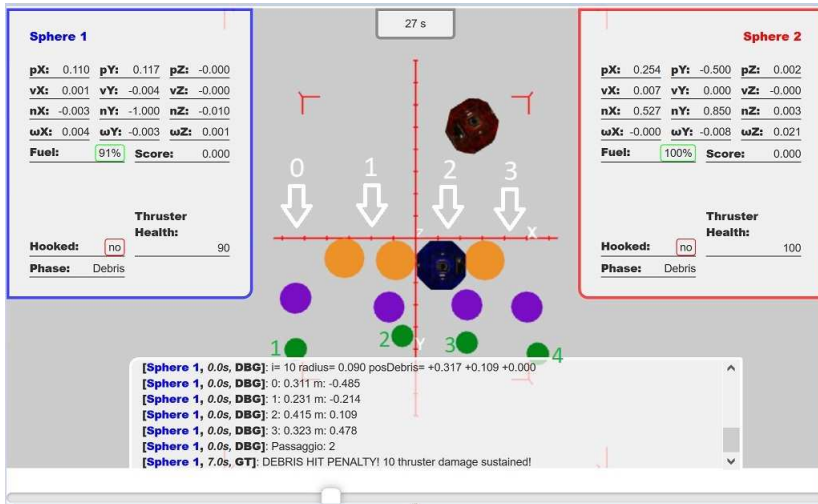
BLUE resta quindi con l' **85% dei truster danneggiati**, nonostante questo (o forse **PROPRIO PER QUESTO**) **NON** si ferma in **point** e inizia a dirigersi verso **RED** col quale **va in collisione** (fine a **48sec** in una simulazione da 60 secondi)

DEBUG a console

```
Sphere 1, 0.0s, GT: Debris initialization sent.
Sphere 1, 0.0s, DBG: i= 00 radius= 0.030 posDebris= -0.501 +0.444 +0.000
Sphere 1, 0.0s, DBG: i= 01 radius= 0.030 posDebris= -0.201 +0.449 +0.000
Sphere 1, 0.0s, DBG: i= 02 radius= 0.030 posDebris= +0.231 +0.468 +0.000
Sphere 1, 0.0s, DBG: i= 03 radius= 0.030 posDebris= +0.497 +0.531 +0.000
Sphere 1, 0.0s, DBG: i= 04 radius= 0.045 posDebris= -0.405 +0.314 +0.000
Sphere 1, 0.0s, DBG: i= 05 radius= 0.045 posDebris= -0.081 +0.321 +0.000
Sphere 1, 0.0s, DBG: i= 06 radius= 0.045 posDebris= +0.090 +0.321 +0.000
Sphere 1, 0.0s, DBG: i= 07 radius= 0.045 posDebris= +0.573 +0.315 +0.000
Sphere 1, 0.0s, DBG: i= 08 radius= 0.090 posDebris= -0.229 +0.095 +0.000
Sphere 1, 0.0s, DBG: i= 09 radius= 0.090 posDebris= +0.047 +0.098 +0.000
Sphere 1, 0.0s, DBG: i= 10 radius= 0.090 posDebris= +0.408 +0.107 +0.000
Sphere 1, 0.0s, DBG: i:0: d:0.411 m:-0.435
Sphere 1, 0.0s, DBG: i:1: d:0.276 m:-0.091
Sphere 1, 0.0s, DBG: i:2: d:0.361 m:0.228
Sphere 1, 0.0s, DBG: i:3: d:0.232 m:0.524
Sphere 1, 0.0s, DBG: Passaggio: 0
Sphere 1, 7.0s, GT: DEBRIS HIT PENALTY! 10 thruster damage sustained!
Sphere 1, 12.0s, GT: DEBRIS HIT PENALTY! 25 thruster damage sustained!
Sphere 1, 15.0s, GT: DEBRIS HIT PENALTY! 50 thruster damage sustained!
Sphere 1, 27.0s, GT: PHASE 1 complete in 27 seconds! Debris area passed . . 2.750 points. .
Sphere 1, 27.0s, GT: Rendezvous NOT ready; separation too large (0.912).
Sphere 1, 28.0s, GT: Rendezvous NOT ready; separation too large (0.915).
... fino a
Sphere 1, 43.0s, GT: Rendezvous NOT ready; separation too large (0.458).
Sphere 1, 44.0s, GT: Rendezvous NOT ready; separation too large (0.411).
Sphere 1, 45.0s, GT: Rendezvous NOT ready; moving too fast (0.042).
Sphere 1, 46.0s, GT: Rendezvous NOT ready; moving too fast (0.040).
Sphere 1, 47.0s, GT: Rendezvous NOT ready; moving too fast (0.040).
Sphere 1, 48.0s, GT: Rendezvous NOT ready; moving too fast (0.039).
```

SECONDA simulazione programma 2018_2D_beta_OD_MV_1.cpp

UNA Simulazione fortunata (?): BLUE potrebbe passare dal varco 2 urtando solo il Green2 (-10% Health), ma



... ma BLUE si ferma tra Orange2 e Orange3 (dopo circa 25 secondi), oscillando leggermente, quindi all'istante 36 urta anche Orange3 (-50% Health); infine resta fermo fino alla fine (45sec) in una simulazione da 80 secondi che termina all'istante 69) e resta con Score a ZERO (ELIMINATI dalla Gara !!!)

NOTA: i varchi (che il programma chiama passaggio) e i detriti si intendono numerati (in questo documento) da sinistra a destra:

- i varchi da 0 a 3 (freccia bianca)
- i detriti Orange da 1 a 3
- i detriti Green da 1 a 4
- i detriti Purple da 1 a 4

Conclusioni:

1. NON fermarsi a $y=0.1$ (andare in $Y-$)
2. fare quindi un percorso a segmenti
3. NON puntare esattamente a RED ma fermarsi prima (NO collisione)
4. verificare se necessario *Attitude*

DEBUG a console

Sphere 1, 0.0s, GT: Debris initialization sent.

```
Sphere 1, 0.0s, DBG: i=00 radius=0.030 posDebris=-0.544 +0.501 +0.000
Sphere 1, 0.0s, DBG: i=01 radius=0.030 posDebris=-0.068 +0.446 +0.000
Sphere 1, 0.0s, DBG: i=02 radius=0.030 posDebris=+0.235 +0.471 +0.000
Sphere 1, 0.0s, DBG: i=03 radius=0.030 posDebris=+0.552 +0.524 +0.000
Sphere 1, 0.0s, DBG: i=04 radius=0.045 posDebris=-0.541 +0.275 +0.000
Sphere 1, 0.0s, DBG: i=05 radius=0.045 posDebris=-0.125 +0.316 +0.000
Sphere 1, 0.0s, DBG: i=06 radius=0.045 posDebris=+0.234 +0.302 +0.000
Sphere 1, 0.0s, DBG: i=07 radius=0.045 posDebris=+0.510 +0.314 +0.000
Sphere 1, 0.0s, DBG: i=08 radius=0.090 posDebris=-0.329 +0.095 +0.000
Sphere 1, 0.0s, DBG: i=09 radius=0.090 posDebris=-0.098 +0.105 +0.000
Sphere 1, 0.0s, DBG: i=10 radius=0.090 posDebris=+0.317 +0.109 +0.000
```

```
Sphere 1, 0.0s, DBG: 0: d:0.311 m: -0.485
Sphere 1, 0.0s, DBG: 1: d:0.231 m: -0.214
Sphere 1, 0.0s, DBG: 2: d:0.415 m: 0.109
Sphere 1, 0.0s, DBG: 3: d:0.323 m: 0.478
Sphere 1, 0.0s, DBG: Passaggio: 2
```

```
Sphere 1, 7.0s, GT: DEBRIS HIT PENALTY! 10 thruster damage sustained!
Sphere 1, 36.0s, GT: DEBRIS HIT PENALTY! 50 thruster damage sustained!
```