Programming for Mechatronic Systems Autumn 2017/1012-2017-AUTUMN-CITY♥

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# Simone Magri

3 days ago

## Assignment 2 - getting raw data and fusion data

#### **Overall Rating:**

I sent these questions to Alen today and he has asked me to put them up for discussion so he can answer to all of us here.

#### PartA:

I'm trying to get the rawData from the Ranger class into the RangerFusion Class member functions.

Should I somehow be able to have the RagerFusion Class derive from the Ranger class, giving me direct access to rawData\_? I'm not sure this makes any sence anyhow. This may be all be due to the 'class Ranger;'

forward declaration but I'm not sure I undersand this well enough yet, and I have googled it.

The other option, and perhaps more likely, is to use a Ranger class public member function to get the Ranger class rawData\_ into the Ranger Fusion class member functions where I need to use it. I'm trying to do

that but getting segfaults, this may be due to my stupidity though so I'll persist with this a little more today.

Could you at least point me in the right direction, which avenue to focuss my efforts on?

## PartB:

- \* Do we use a normal/gaussian distribution for generating the angles foreach fusion value?
- \* Can we assume that the laser/radar/sonar are pointing in the same direction, and the range of the angles is -fov/2 < angle < +fov/2. So angles are centred around 0, or mean of distribution at = 0.

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**Alex Virgona** 

1 day ago

RE: Assignment 2 - getting raw data and fusion data

**Overall Rating:** 

Part A

The RangerFusion class should not need to inherit from Ranger. The RangerFusion class should store pointers to your Ranger objects. When it needs to access data inside the Ranger objects is should be able to call a public method to retrieve this data.

Part B

You should not need to randomly generate angles. The angles are fixed and given by the resolution and FOV of each ranger. The the centres of the rangers FOVs are aligned. You will need to draw the range values from a distribution not the angles.

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