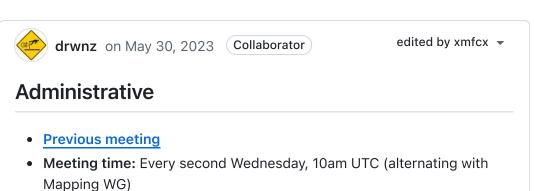


Perception & Sensing WG Meeting 31/05/2023 #3533

drwnz started this conversation in Working group meetings



Attendees

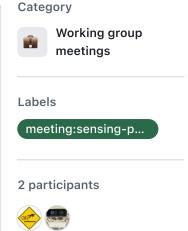
▼ Chaired by Fatih

WG Google Drive

- Kenzo Lobos
- Dai Nguyen
- YoshiRi
- Zeynep Akbalık
- Prerag Djurdjevic
- Alexey Panferov
- Mitsudome-san
- Yusuke Muramatsu
- Kaan Çolak
- Holger Trittenbach
- Armağan Arslan
- Miura-san
- David Walmroth
- · Kumar, Chamakuri Sai
- Bonolo
- Phan Nam

Agenda

- Introduction of new attendees
- Introduction from neurocat
- Progress report on Completion of Sensing & Perception
 Documentation
- Progress report on Universal Lidar Driver
- Review of <u>Project Board</u> and assignment



Discussion topics

- Introduction from neurocat
 - They offer the product: aidkit as a solution:
 - aidkit is the toolkit to test the perception functions of ADAS/ADS and ensure they are safe for deployment.
 - By testing your ML model for robustness against a range of altered scenes, aidkit ensures reliable performance in your ODD.
 - Where performance falters, aidkit guides your data campaign so you know how to improve.
 - aidkit integrates into existing workflows and reduces time to deployment though useful features such as scaling, data lineage, and automatic retraining.
 - Deploy a safer perception component with the empirical evidence to back up your safety claims to safety managers and external regulators.
 - How to collaborate with neurocat [™] ?
 - Let's hold another meeting to discuss further.
 - We'll compile a list of our questions for neurocat.
- Progress report on Supported Sensors Documentation
 - o @armaganarsIn
 - In the reference wg, we are also interested in this.
 - <u>@xmfcx</u> to join to the next Reference WG to show them how they can contribute it to the documentation
 - https://docs.google.com/document/d/1Q2hRkJ1y_smtoglYb0sQ dOyot-01UpZV3DIGyGU1-Gs/edit?usp=sharing (old documentation)
- Progress report on Completion of Sensing & Perception Documentation
 - **b** docs: add perception design autoware-documentation#385
 - Everyone is ok to add comments even in the draft stage.
 - docs(design/autoware-interfaces): add sensing interface autoware-documentation#328

/sensing/lidar/driver/velodyne_driver
/sensing/gnss/preprocessor/gnss_poser



- We can discuss more on the convention.
- Progress report on Universal LiDAR Driver
 - Will be released within this week.
 - Thank you for discussion on point field ordering, implementation has been aligned to match:

```
struct PointXYZIRCAEDT
{
  float x;
  float y;
  float z;
  std::uint8_t intensity;
  std::uint8_t return_type;
  std::uint16_t channel;
  float azimuth;
```

```
float elevation;
float distance;
std::uint32_t time_stamp;
};
```

- · Review of Project Board and task assignment
 - Ground remover package
 - ground remover package cannot delete ghost points appears front of car when passing speedbump autoware.universe#3673
 - Caching issue
 - ring_outlier_filter blows up my cache (and yours too) autoware.universe#3269
 - Map-based prediction
 - Map Based Prediction Incorrect
 Predictions autoware.universe#494
- Other items
- <u>@badai-nguyen</u> is working on rainy conditions object detection tasks internally.
- @knzo25 is working on Traffic light arbiter node.
- @miursh mainly reviewing the active PRs and issues.
- <u>@YoshiRi</u> internally working on: tracking models, tuning tracking (camera filter params)
 - We don't have enough regression checks in general, we can not easily confirm if parameter changes improve the tracking stack.
 - In TIER IV collecting annotated data, simulator, planning to use these data to eval perception results.
 - Working on the Web.auto service, not github ci.
- @yukke42 working on ML projects, not public yet.
- <u>@Zeysthingz</u> working on
 - ground remover package cannot delete ghost points appears front of car when passing speedbump autoware.universe#3673
 - will upload data on the topic
- <u>@kaancolak</u> is working on sensing delay mitigation on the Internal VW Golf vehicle project.
- @lexavtanke is working on ML based Occupancy
 - ground remover package cannot delete ghost points appears front of car when passing speedbump autoware.universe#3673

Action items

Announce formation of working group on ROS Discourse	
Announce Nebula (universal sensor driver) open source rel	ease
Summarize current documentation for Sensing & Perception	n
documentation	

1 comment Oldest Newest Top



<u>Progress repor</u>t on ML occupancy prediction task

1

0 replies