Aerial Robotics WG meeting (2023-04-26 16:04 GMT+2) - Transcript

Attendees

Aarsh Thakker, Alexey Simonov, Aswin Rajan, Chinedu Amadi, Daniel Honies, Enrico Ferrera, Ganapathy Naayagam, Joe Dinius, Jorge Peña Queralta, Kimberly McGuire, Lei Fu, LJ Yan, MCTV Chris, Miguel Fernandez, Natesh Narain, Paola Torrico, Rafael Pérez, Ramon Roche, Ramon Roche's Presentation, Ryan Friedman, Teleme Thing, Théotime Balaguer

Transcript

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Kimberly McGuire: And I'm just on a laptop. Okay, I'm recording this now. So welcome everybody. At the first official startup meeting of the aerial robotics working group community driven though like last time was more of an export of meeting to see yeah, if it was at all interesting to actually, Have something but since so many people showed up and there were so many people that talks about the projects and challenges. Now, here we are. Um, I guess what we would like to go through to the agenda for today, is to kind of look at perhaps like first a little bit of a change here, first to look at the proposal. I hope that everybody has kind of like a rather read through that and perhaps the one on the Github repository,

Kimberly McGuire: If you have any yeah comments on that. Then some technicalities we have quite some freedom because it's going to be community driven but it's more of like the questions of Yeah, so like you know how do we communicate and things like that and whatsoever? and then the next parts is going to be then, like let's talk about have a little bit of a discussion about our latest Discussion thread that we had like what is an area about this? Stack that same. Let's have like a couple of words about that because there was a comments that on the threats that it's very undefined topic. Let's say like what is an area? Republic Stack.

Kimberly McGuire: Um, yeah. And then we can also kind of talk us like, what is anything? That's weird that we forgotten. Is there anything like topics that we can include into this dish over fewer landscape? And then if anybody wants to share anything on anything aerial robotics project that they're currently working on and just kind of like a few sentences quick updates. So that's kind of the idea for today. And yeah.

Kimberly McGuire: I think that will be good. Let's go to the next slides.

Ramon Roche: All right. Yeah, awesome. Yeah, I think we should we should show them our new logo.

Kimberly McGuire: Yeah.

Kimberly McGuire: Yeah, yes. Indeed like it may be the first thing what you guys think of the logo.

Ramon Roche: It's AI generated to flying Turtle.

Kimberly McGuire: No, no, we made it by ourselves Ramon before I sweating things.

Ramon Roche: Sorry, I I draw it. Yeah, last night.

Kimberly McGuire: Yeah, no but it's it's a really cool. I would say. Yeah. And I told him Atomically very incorrect.

Ramon Roche: We're just playing around.

Kimberly McGuire: It's not like, but it's nice. um, Yeah, that's

Ramon Roche: All right. Let's get started with the worker proposal I guess.

Kimberly McGuire: Go to. Yeah, exactly. I hope that everybody read through it because if I'm going to read through it, this meeting is going to last by too long. And the reason for the working group, the Errorable Thing's Working Group is obvious. like aerial robotics is awesome but in order for it to be integrated better in rules, there's still a lot to be done, specially for us too, so I'm not going to, yeah. it should be logical for all of us, but maybe perhaps, like a comma, if you guys could give some comments on the first goal is to kind of make a arabletics in for Information Landscape Let's say like an overview because even though that's maybe there was nothing working group before they have been like a lot of projects all narrowable to inverse that have been developed in the past.

Kimberly McGuire: So then the idea is to kind of gather the information, grab all of those past and current projects together and perhaps like you know, define the currents. Remaining challenges from those projects were trying to solve in the past. And then once we get it all, that's right. We have to find the categories like for the overview and clarity and that will also perhaps be the base for potential sub projects in the future. And which like usually working groups if they have. Yeah, then it's kind of like one overlapping topic and then it's going to be some support projects that people are going to work. Separately on it. Like communication for instance. Yeah. So the first steps are simple. Just a lot of research law of reading, Actually we started a github repository already. Um, that was aerial. It's currently only has like kind of the community.

Kimberly McGuire: Work group proposal on their and some documents. So it's still very basic but the idea is to start a new Sorry. I meant I didn't we made an aerial aerial organization and we're going to make a repository for the overview specifically, Yeah, and of course like you know, organizing this, these discussions and meetings.

00:05:00
Kimberly McGuire: To have discuss what we have found or yeah. so kind of like on the goal, let's say, Yeah, any any questions or comments? That's it's like there's a sound good or if they're something that we're completely forgetting or

Kimberly McGuire: You can. Ryan is okay.

Kimberly McGuire: Yeah, great. I see. Okay then Then, let's continue.

Ramon Roche: All right, sounds good. And then, by the way, for everyone on the call, if you have any questions or anything, you, you feel free to unmute or send us a text?

Ramon Roche: All right, next one.

Kimberly McGuire: Yeah. So the working group technicalities, let's say. So we're going to be community driven. So which means that we're working group that is purely out of interest. Um, of out of four aerial robotics, obviously. So the means it's going to be separate from the technical committee. I don't know if you've seen any of the, of the notes of the technical community that sometimes put some discord. You see a point that all the technical committee working groups, supporting groups give like an update of each of their working group at one point that is not The kind of work group that we are. So we're going to be kind of separate from like the, the reign of technical community, which is which is fine. Um, and that is also based on the advice that they got from Jeff. From from the open revelation.

Kimberly McGuire: Foundation to stay a community driven working group until we have defined clear development goals. So that's kind of makes sense.

Kimberly McGuire: Yeah, so then I've since our focus is to kind of first start together information, I think that's That is fine. So kind of like also kind of to go focus again on the difference between a yeah technical steering committee, chosen a community driven working group. If you're not aware of that there is a some documentation how to start the community working group. Um, on the governments were so part of the open robotics websites and but these rules are a bit outdated.

Kimberly McGuire: And because before Community Driven working group were mentioned on the government's websites and the community, And the official Ross events were on one Google calendar, and that's not going to happen anymore. So yeah. We can fill a little bit in ourselves. We don't have to follow these rules. And I perhaps have a couple of ideas of maybe how to change it a little bit. But yeah.

Ramon Roche: Question. Kim Going forward. Working we expect to find the Google account or invite for this meeting.

Kimberly McGuire: yeah so there is this community community driven Google Google calendar, that gets Scots shared on discourse and which I also provide a link into in the thread that goes to That goes to the separate community working group, or community. Google Calendar. And that's where this

Kimberly McGuire: this meeting was listed on as well.

Ramon Roche: Okay, and then any subsequent meeting will be there as well. We just need to find and link it. Sounds good.

Kimberly McGuire: Yeah, exactly. But of course, we're going to put it on the discourse threats. Obviously, and whatever.

Kimberly McGuire: Communication channels were also planning to have next to that if we're willing to do that. Yeah, baby. Next slide would be good.

Ramon Roche: Sounds good.

Kimberly McGuire: I guess, like a couple of questions of also for you. For like, you know how to communicate. I think it's also kind of to wish from Roche and open Open Books Foundation. That this

course should be our main place for sharing information. So whenever there's a meeting announced we'll start an interact or if you want to have feedback for instance on like or just like, you know, general discussion Threat like it is like does anybody know more more autonomous aerial robotics tax? And I've that's that should be just in discourse. We can do everything on this course that is No problem, but it's kind of a different type of platform and is anybody would with a prefer also, a chat based platform as well. like discord or slack or

00:10:00

Kimberly McGuire: Ryan has very animated eyes so I can very easily. Yeah. See if you

Ryan Friedman: I mean, like, both both Px4 and Art of pilot already have discords. So that might be a good way to get engagement from those communities, but you're also lose a lot of traceability. When you go to a chat platform and people tend to do highly technical discussions which are

Kimberly McGuire: Okay. Yeah.

Ryan Friedman: so,

Kimberly McGuire: Yeah.

Ramon Roche: To.

Kimberly McGuire: Okay. Yeah. I guess like. Yeah. This course. This course. And discord has they both have their own advantages? The name is not great. Like discord and discourse. It's Yeah. But anyway another alternative what we can also do because I'm not sure if any everybody is fine with using discord or slack is to just ask the Operatics Foundation if for if we're allowed to have a community area to community channel, on the Ross discord. That is perhaps like I think Ramon you were you actually suggested this but I thought not to ask it to Jeff because we're community driven, so yeah.

Kimberly McGuire: What is your?

Ramon Roche: That's okay. Yeah, I think we should stick for the forums right now. Yeah, I think we just stick with the forums…

Kimberly McGuire: Yeah.

Ramon Roche: until we we need to channel.

Kimberly McGuire: Okay. Yeah, I guess like it would be nice to kind of show more.

Kimberly McGuire: Activity in the aerial vehicle category first.

Ramon Roche: Yeah. Yeah, definitely. I mean discord,…

Kimberly McGuire: Um, yeah. Okay. I think the

Ramon Roche: this discord for me is good for recording the calls and like Doing some meta discussions on the work group stuff. Yeah. But then I think we should definitely pushed everyone to the forums as much as possible. So let's let's work with the forums for now is if everyone always But does everyone think?

Ramon Roche: just, Thank…

Kimberly McGuire: Yeah.

Ramon Roche: Yeah. All right, I guess there's a right hand. I guess. That's a Forums is good.

Kimberly McGuire: Okay, it's I'm happy that the it seemed last time that we were here.

Ramon Roche: Okay. Thank you.

Kimberly McGuire: It doesn't seem that the option of giving comments were all possible or like Emojis. So that seems to be working so that's good.

Ramon Roche: this course, for all communication going,

Kimberly McGuire: okay, just calm down.

Ramon Roche: I wish there were sounds too like Ah,…

Kimberly McGuire: Yeah.

Ramon Roche: let's see. Okay.

Kimberly McGuire: Um, I have like, you know, at least the I had the Google Group's question mark in there because that's because still like a requirements of the rules for Community Driven and Working Group, which is now completely outdated. Because it was for made for community, so that you're able to have access to the Roche's event calendar. However, I don't, I'm not a big fan of Google groups. Who should like you are you a fan of Google groups Ramona? Okay.

Ramon Roche: Now. Yeah. No, not at all. Even like email based forums not not good. Yeah, I think we should stick with the forums right now like discord this course And…

Kimberly McGuire: No.

Kimberly McGuire: This course.

Ramon Roche: then so for the meetings, like how, how often should we aim for once a month? Maybe.

Ramon Roche: Options are once a month by weekly. Or weekly. Let's do this. Why don't we? Do thumbs up for week for monthly.

Ramon Roche: Oh, sorry. Let me limit. Write it down monthly. Let's do.

Kimberly McGuire: Monthly three.

Ramon Roche: Rock and roll, right? And then let's do.

Kimberly McGuire: Oh, four.

Ramon Roche: Oh wait, you don't have rock and roll. You have a plus then you have, This. What is that supposed to be a hard? Yes, hard.

Kimberly McGuire: I guess so, a heart for biweekly. We're not.

Ramon Roche: Yeah. Okay. Let's go like once every two weeks.

Kimberly McGuire: Oh yeah. Oh you clapping for bi-weekly Yeah.

Ramon Roche: Yeah, Cal clapping.

Ramon Roche: I think we should have. Oh, it's getting interesting here. Bi-weekly.

00:15:00

Kimberly McGuire: Yeah.

Kimberly McGuire: I think actually Google meet has a Has a Q&A option.

Ramon Roche: I'm counting the Emojis.

Kimberly McGuire: Which we can use, maybe. Or pulse.

Ramon Roche: And they do. They do.

Kimberly McGuire: yeah, maybe I'm weights. I'm going to start again. I'm sorry. I just want to try this out. I have never tried that. Okay. How often meetings?

Kimberly McGuire: Monthly. and by weekly,

Kimberly McGuire: Lunch. Do you guys see the pool?

Ramon Roche: There was a message here.

Kimberly McGuire: Yeah. Okay, sorry. If you could fulfill it again because the Emojis were a bit. Iffy. Oh, this is awesome.

Kimberly McGuire: Oh, they're going up evenly. This works, great actually.

Ramon Roche: Was the result.

Kimberly McGuire: Okay, so we have we have done votes and it's 50.

Ramon Roche: Did you bought him?

Kimberly McGuire: I I did on thoughts. Okay.

Ramon Roche: So tiebreaker.

Kimberly McGuire: Still 50. What did you thought so Ramon

Ramon Roche: I bought it monthly. Yeah, but…

Kimberly McGuire: Yeah, because you have so many meetings already.

Ramon Roche: but yeah I mean I'm fine with my weekly too.

Kimberly McGuire: I'm actually in terms of bi-weekly. I had initially an idea that we can do like every every month we have a regular meeting and…

Ramon Roche: oh,

Kimberly McGuire: then like One meeting in the month, we're going to have like a kind of a discussion meeting about the work. Group, another meeting is going to be a presentation about the projects. so, As.

Ramon Roche: okay, then by weekly wins, then

Kimberly McGuire: So, yeah, so that's perhaps something that's, that's an argument for the bi-weekly and at least the One of those is in presentation, one, which should be less discussion. They'll yeah,…

Ramon Roche: Like a guest,…

Kimberly McGuire: most Yeah,…

Ramon Roche: we can. Okay.

Kimberly McGuire: like a guest. Yeah, exactly, yeah, that's one of one of you guys presents your projects and that we just ask questions about it. And this also in our sense of gathering information,…

Ramon Roche: All right,…

Kimberly McGuire: right? Might be

Ramon Roche: and then there's a few people that just joined us. There's a poll going on. If you can help us answer that. will be a great, but it sounds like

Kimberly McGuire: yeah, how often we would like to have meetings,

Ramon Roche: All right. Well let's Let's see the results, then. Where are we?

Kimberly McGuire: Yeah, we're still 50/50. So yeah.

Ramon Roche: Okay, so let's move on and then come back.

Kimberly McGuire: Yeah, exactly. Um yeah I guess like I mentioned in these two contents, the presentation's or just discussions. Or both. Both presentation or discussions, we can do like the contents. Polls well, discussions, presentation's.

Ramon Roche: Okay.

Kimberly McGuire: Content meetings. And then both and here's another poll.

Kimberly McGuire: so, Did you like my idea of kind of mixing it up for the bi-weekly meetings? Or

Ramon Roche: More Paul's.

Ramon Roche: Oh yeah. I think it makes more sense.

Kimberly McGuire: Yeah, I would say so yeah.

Ramon Roche: Go ahead.

Kimberly McGuire: Did you have any question, ours, or was it just an okay?

Kimberly McGuire: Earth. I think it was just, okay, so we have another ball. Pool on already, that's probably good. A good way to get some Feedback and needs. Um, Yanika's like the last this, perhaps. Yeah, I don't know, like preferred day and time. Yeah, it's difficult to keep keep Check with so many people but yeah, I guess every like it's a kind of not fair because everybody's here can already go on these times.

Kimberly McGuire: Right. So

Kimberly McGuire: Unless everybody, like if anybody has says the like, you know, this time was very difficult for me to join, please do it at a different time, put it in the jetper apps.

Kimberly McGuire: All right, then.

Ramon Roche: Okay, you guys, we bi-weekly then.

00:20:00

Kimberly McGuire: Yeah, bi-weekly at four pm. Summer as center European summer time 2pm A universal time. So yeah.

Ramon Roche: Okay, should we stick with GTC?

Kimberly McGuire: Yeah, UTC is much easier in this.

Ramon Roche: Okay. So, it started 2 pm btc, right?

Kimberly McGuire: Yeah. and then, We'll announce the meetings at least like tour one week before. And try to get them on the community calendar as much as possible.

Ramon Roche: Sounds good.

Kimberly McGuire: All right.

Ramon Roche: All right.

Kimberly McGuire: so, I guess Like How how do we take the next part is about members before like the Google group is kind of meant, so you can sign up. And then you kind of consider the member of the working group, Do we want to give some kind of definition to members of the working group?

Kimberly McGuire: Yeah, I I guess we can. Perhaps also kind of have a small pool and that's

Ramon Roche: Well, why don't we make a Github? Or I'd like to ask people to add their name to a list and Github and it takes some effort from them, but That's…

Kimberly McGuire: Yeah.

Ramon Roche: what we want, right? So instead of us writing them down like you add your name,

Kimberly McGuire: Yeah. Okay. Yeah, I was thinking about making a pool of like in terms of like everybody that's here how active they want to be participating with this. I don't know if that's maybe a good idea to

Kimberly McGuire: I do let me just see participating. No.

Ramon Roche: and those are you that just joined like this is a meta discussion and the work group making sure that we're aligned and we can all We all know what to expect out of this.

Kimberly McGuire: Yes. And no, but

Ramon Roche: This is the last slide on this topic.

Kimberly McGuire: Yeah, exactly. But after that, we're going to have the real discussions. It's just kind of important for the startup for the for the working group.

Ramon Roche: Yeah, well we got four more minutes him to finish this discussion.

Kimberly McGuire: Yeah.

Kimberly McGuire: It's a monitoring of the time.

Ramon Roche: No, but I have opinions. That sounds like me.

Kimberly McGuire: Yeah, I guess like we can define what participation is but yeah I guess like a participation is to like we have this. We have this this or like get up organization to actually actively add to the overviews.

Kimberly McGuire: To kind of keep us up to date for current projects, eventually. It's going to be like you know perhaps leading some kind of subject or some topic been in the working group. So oh, we already have five votes for yes.

Ramon Roche: All right. Well, Thank you.

Kimberly McGuire: Very good and the rest doesn't have a pet. No, no, no, yeah. All right. Okay, but they are five. It's already quite pretty good.

Kimberly McGuire: These bowls are anonymous, by the way. Are they though? Show everybody the results.

Kimberly McGuire: Responsive appear without names. Okay. Yeah. Yes. All…

Ramon Roche: Thank you.

Kimberly McGuire: Cool. Yeah, but let's indeed put it in the in the community Repulsory on Github and then people can just make a poor request if they want to add their name to it.

Ramon Roche: Here we go, Repos. This is the community one.

Ramon Roche: I guess, can we add up to the can we append to this and…

Kimberly McGuire: Yeah, I'm sure.

Ramon Roche: like a list of members?

Kimberly McGuire: Yeah. This this was the templates that's we used for like there was for the working group one, but yeah.

Ramon Roche: All right.

Kimberly McGuire: I think there is a

Kimberly McGuire: yeah, this is fine.

Ramon Roche: Right, why not? And let's end up.

Kimberly McGuire: I think there's already a category somewhere there.

Kimberly McGuire: What's a? Yes.

Ramon Roche: Others. A characterium.

Ramon Roche: Oops. All right, we can keep it. Oh, this one.

Kimberly McGuire: Yeah, it's one membership. Yes.

Ramon Roche: I think we should see this.

Ramon Roche: All right. And then pack you to review it Kim and then anyone else can just add them,…

Kimberly McGuire: Well.

Ramon Roche: keep it depending to the list.

Kimberly McGuire: Yeah, sounds good. Okay, that's That's continued to the actual discussion to the actual meeting. Now we have all the technicalities out. And decided stuff.

00:25:00

Ramon Roche: A.

Ramon Roche: Okay. And…

Kimberly McGuire: Oh yeah.

Ramon Roche: then for those of you that don't have the presentation, Here's the link. I forgot to share it earlier. Anyone with LinkedIn view.

Kimberly McGuire: I am. I'm just going to end the polls, but just to kind of like having that we have. An intermediates results. Is that we every many are for bi-weekly, just by slides. More percentage. That's we have a majority of the food for both presentation and discussions. And everybody wants to participate with the now, just seven. But I think that's a really very good amounts. Okay, so yeah, the next part is a

discussion. So anybody that wants to chip in, please Chip in, We had this on the discourse thread where I was asking for if anybody knew some

Kimberly McGuire: Good list of. Yeah, Ariel autonomy stacks. Let's say and I already provide some list and some respondent with with projects and some respondents with that, it's a bit too much of a gray area. So let's talk about the gray area. I guess what we could start out with first is What is what is the autonomy? Autonomy stack, let's just leave the area out of it. What is in that sense? Like What is an autonomy stack?

Kimberly McGuire: Anybody that wants to. Take you go at it.

Miguel Fernandez: Maybe we can give our our vision.

Ramon Roche: Yep.

Ramon Roche: Um, can anyone hear him?

Kimberly McGuire: Miguel, I think we lost you.

Kimberly McGuire: We cannot hear you anymore. No.

Kimberly McGuire: Can you say something again?

Ramon Roche: Mike, anyone else want to speak?

Kimberly McGuire: Okay.

Ramon Roche: What did you have in mind Kim when you were describing, autonomy, Stack.

Kimberly McGuire: At least. my definition of the aerial stack is it's kind of just like a collection of packages that's enable the vehicle or the aerial vehicle to fly or partly fly without Like you know, without and human actually controlling it. You can still have a human in the loop for security and definitely with big drums, that is perhaps and good idea. But the autonomy is that this kind of still able to do parts or the full mission itself, and then, Yeah, it should usually be be a collection of. It can also be just one back that is like autonomy back but I would say just like simulation, perhaps like some parts for navigation for behavior.

Ramon Roche: The message.

Kimberly McGuire: Yeah, very very broad definition.

Ramon Roche: That works.

Miguel Fernandez: Hello, can you hear me now?

Ramon Roche: Go ahead. Ask me and…

Kimberly McGuire: Yeah, we can hear you. Yeah. Yeah,…

Ramon Roche: we're here.

Miguel Fernandez: Okay, so can I go or maybe? Yeah.

Ramon Roche: Yes, go…

Kimberly McGuire: go forth.

Ramon Roche: Thank you.

Miguel Fernandez: For our opinion is that it's a collection of of tools that is the development of ideal system which means not just being able to define a mission but also to to have all the the building blocks that you have to join in order to perform an autonomous and task with with UAVs.

Ramon Roche: that's,

Ramon Roche: I like your definition man.

Kimberly McGuire: All right. Curious, I think it's even better to better formulate it than the mine. Various Joe. Yeah.

Ramon Roche: Yeah, there's another one. There's another one in the chat. It says any collection of packages that allow for RL Tunnels mission power in the loop and software in the loop with bearing, hardware resources.

Kimberly McGuire: That's also very good. Let's copy and let's put it in there. I saw that there was a hand soap by Joe.

Ramon Roche: Yeah.

Ramon Roche: What happened?

00:30:00

Kimberly McGuire: Joe, are you there? Did you have anything to say or was it just

Joe Dinius: No, no I sorry I was on mute. I was gonna say that, you know going back to the definition of autonomy as a combination of sensing planning and action just making those Separate concerns kind of as boundary lines for what are the areas of the stack? Like there are focused areas of sensing and perception planning and and action.

Kimberly McGuire: Carrots. Very good. Basically, not for you to write it down. Everyone.

Ramon Roche: I think I missed a few things, but maybe Joe. Can you tell you? Help me, text, write it down.

Joe Dinius: Sure, yeah.

Joe Dinius: Yeah. You got the essence of it.

Ramon Roche: Thank you.

Ramon Roche: Yeah, I just didn't want to be too generic. I think you explain it better.

Kimberly McGuire: We are probably we're going to from this recording. We're going to maybe get a transcripts. If I know Google meet then we can we can kind of double check what the that of course.

Ramon Roche: And there's another someone else I guess.

Kimberly McGuire: Yeah, that anybody erase their hands who anybody? That would like to pitch in. To this discussion.

Ramon Roche: I think we are pretty much aligned in here.

Kimberly McGuire: All right.

Ramon Roche: Does anyone have any opinion other than what is represented here?

Ramon Roche: Okay. I guess that's a no.

Kimberly McGuire: What I might? What? I might want to suggest is that Miguel he mentions their their paper on error.

Kimberly McGuire: On Aerostack aerostack 2, and that actually had a very nice overview of different aerial autonomy stacks. Which I think might be a nice base to add to like the overview and get up. I don't know if we I can share you the link of the paper. Maybe we can show it in the screen. Well moments.

Ramon Roche: Yes, or is it?

Kimberly McGuire: Because I actually thought that was a good. Pretty good one.

Kimberly McGuire: And also, we have some comments on the

Kimberly McGuire: Oh yeah, you can also get it from there.

Kimberly McGuire: That's just looking at the chats. Uh Ganapathy I also had the questions. Mike probably need to add that the stack is to some extent, smallific And has a high interruptibility operability. That can be both as a standalone solution as well. Some extent plug and play. Very good.

Kimberly McGuire: Very good question, indeeds. Or got extra comments.

Kimberly McGuire: Timothy is saying, I wonder if there's a distinction to be made by packages that are useful for all autonomous robots and packages specific to area about this. um,

Kimberly McGuire: Yeah, at empty. Like I think there should be is a distinction, let's say, but we shouldn't forget about the the ground robots autonomy sex. Steve from Nev2, he answered on the threads and he was like, you know, he was interested in like, a, an aerial plugin for an F2 framework. Which I would say is would be a good idea. And to not reinvent the wheel completely there. So, Yeah, I guess like you know if there's any solutions in ground robots, that would be interesting. We should definitely not ignore it.

Kimberly McGuire: But maybe like maybe even more from face of once we go to collect all of those things together and then we should start thinking about overlaps at different working groups, because we're definitely going to have overlaps for different work. And maybe have some fights with Marine

Working Group as wellness. Marine is also very important. But yeah, there are going to be like, kind of in a similar situation as well.

Kimberly McGuire: Yeah. Yeah. So

Ramon Roche: if me, right this down, there's a few comments here that maybe it's our probably gonna a good idea to

Kimberly McGuire: Yeah, exactly. I was just discussing the Timothy Not Timothy. Sorry Tilton. I'm terrible with names.

00:35:00

Ramon Roche: Yeah.

Kimberly McGuire: I am so sorry. Yeah. And Joe's indeed. I think you've already put the from the one from Joe down, right? Yeah.

Ramon Roche: Yeah.

Kimberly McGuire: So that's what you already mentioned.

Ramon Roche: I I actually get an atheist updated comment. so,

Ramon Roche: Day. And then, See you again.

Kimberly McGuire: Yeah, awesome. Yeah. I will kind of fixed up a little bit later and it.

Ramon Roche: Sorry, I'm a bit slow.

Kimberly McGuire: Yeah, and TSM is also saying like I think in camera based computer vision has to be mentioned but it's exists in many places in the Rose Community. Establzation packages are only useful for UV Republic. So we have to need to have references to other autonomy packages and our own aerial both expectages. Yeah. Yeah. That's like, you know, stability is in these very important safe. I guess that's also includes safety, like, aerial safety, as well or aerial vehicle management. um, perhaps

Joe Dinius: But there's there's image stabilization, too. Not just vehicle stabilization.

Kimberly McGuire: Ah, okay, yeah, of course. Yeah. Yeah, but I guess like, you know, we like just to kind of draw the bit bigger, we need to kind of also see like what's what distinguishes Ourself as the aerial working group. Like the other than being a ground for adults with an expert dimension. There's of course a lot more. A lot more to be set for this. So much more but maybe that's a good bridge to the next question. Unless there's anybody else that want to comments? What is an aerial robotics stack?

Ramon Roche: You have any comments later? I think I A good idea would be to move this to. Github part of the discussion to keep her, but some point. So I'll look for a way to do that and then you can include your comments in there as well.

Kimberly McGuire: Yeah, that's what actually a good idea. I've seen the marina, Working group putting their notes on GITHUB so we can put it in the community repository. Yeah, that's probably a good idea.

Ramon Roche: All right, so the next one is topics that should be included in their robotics landscape. I think we already have a good, a good idea where this is going from the responses to the last questions. So, we should definitely include autonomous tax for a reason.

Kimberly McGuire: Yeah, Emperor. Perhaps for a proposed, a more formal definition of it. Let's say. If it's, if it's possible.

Ramon Roche: so, we also mentioned packages that are not Necessarily for autonomy, right?

Ramon Roche: But UAB specific.

Kimberly McGuire: Yes.

Ramon Roche: And see on simulation inside. Are there any aerial robotics Specific simulations that we want to discuss? Are we? Are we okay with just discussing generic simulation?

Kimberly McGuire: Yeah, I guess. It's like now currently we're just talking like we should perhaps not really talk about these topics by itself. Because there's two little time. I think this list is mostly meant as a list of topics that you can discuss about in the future. Let's say.

Ramon Roche: Sounds good.

Kimberly McGuire: Yeah, by the way, I do have a comment about the aerial robotics simulation. I don't know if anybody of you is going to icra this year in London. There's an aerial Baltic, simulation workshop. On Friday afternoon.

Kimberly McGuire: So, after that's We know all everything that needs to know about aerial stimulation. Hopefully yeah. But no,...

Joe Dinius: Who were...

Kimberly McGuire: but that's going to be.

Joe Dinius: Who are the sponsors for that? You know.

Kimberly McGuire: Sponsors.

Joe Dinius: Not, not very accurate but I mean who are the workshop organizers. I guess. Oh great.

Kimberly McGuire: Me. and...

Ramon Roche: It's Kim.

Kimberly McGuire: Wolfgang from crazy swarm, and Except Liana Celano. He also made something in order of the rotor S,

Kimberly McGuire: and also shiara from Tu TV center. One moment. Let me just give Find. Last name, because as I said before, I'm terrible with last names.

00:40:00
Ramon Roche: Do you have a link to the?

Kimberly McGuire: And Kiara a gallery. Yeah, I think that's probably better. The Me trying to bring us Attention. Yeah. That is. One moment, I'll be right there.

Kimberly McGuire: And we have also quite some nice speakers. As well.

Kimberly McGuire: So like we have Angela Schilling. We have Davita Chicago motsa talking about Flightmare Angelized going to talk about. Like a Bible drone simulator.

Kimberly McGuire: A couple of other ones. And of course, yes, a young from a big sweater as well. And the most I'm I lost you guys in the in my threats. There you are, okay.

Kimberly McGuire: Here's the link. So, if you, if you happen to be a diagram, I expect you all day, just good. Maybe. Um, okay but yeah, I guess like what I was saying like in the selected topics just to, as a list of topics that we can discuss about in the future, maybe dedicate a meeting about as well. Yeah.

Ramon Roche: Yeah, you might think you missed you miss, posting the link.

Kimberly McGuire: I didn't I do that. No. Didn't people get my link already?

Ramon Roche: No.

Joe Dinius: I got it.

Kimberly McGuire: Yeah.

Ramon Roche: Go, thank you. Alright.

Kimberly McGuire: All right.

Kimberly McGuire: Yes. Oh yeah. Almost got That's the other speaker. It's just I have to workshop.

Ramon Roche: Here we go. Okay. What else are we supposed to be discussing in this light Kim?

Kimberly McGuire: Yeah.

Kimberly McGuire: Yeah, additions changes. Like measure standards for UVs, we got communication, maybe for swarms, I added that because it's kind of it's not maybe a UV thing but we don't really have a multi robot working group too much. And swarming happens quite a lot in UVs Safety Management Systems. As I said, very important. I guess we can also have like a topic about tutorials and education. There was somebody that mentioned last time that's, A going into areaabletics has a very, very steep learning curve.

Ramon Roche: State learning Earth. Yeah.

Kimberly McGuire: Is there anybody else that has another topic that we say? Like that should be in the list. That's it. We should discuss that at one point.

Ryan Friedman: I think legalities also a concern because you, you can't just like in the US, You can build a ground robot and just drive around. And there's no, there's not like, you know, for a small enough scale as long as you're not in the public roads. You can do whatever you want and your backyard but as soon as you enter the airspace your subject, to the national airspace rules and you have to comply with certain

regulations and I think that some someone building a robot as soon as you put propellers on it and it launches in the air, you have to be conscientious of of the rules and follow that. So it's also another barrier to entry that people might not know about.

Kimberly McGuire: Very, very good points, I guess. Like a lot of these regulations are going to combined with the safety management system that they have to have some some things in Acts already. But yeah,...

Ryan Friedman: Yep.

Kimberly McGuire: to to have knowledge about like what is allowed there? I think there's probably already a lot of documentation but it would be nice that we can at least link to those documentations from somewhere.

Ramon Roche: Yeah.

Ryan Friedman: Yeah, to just mention that like you should probably go read your little, check out the recommendations for your country.

Kimberly McGuire: Mm-hmm. Yeah.

Ramon Roche: The thing, there's a quick guide that we can put together there.

Ryan Friedman: Like a single person can like you can do swimming and simulation but I can't go fly swarm. Legally in the US.

Kimberly McGuire: Indoors, you can But,...

Ryan Friedman: Indoors. Yeah. Yeah. And outside, yeah.

Kimberly McGuire: of course, yeah, I am starting. Yeah, no. Okay, yeah. But that's a very good point. Perhaps also a good point here is that Maybe we should put things like hardware on there as well.

Ramon Roche: Yeah, that would that was my next question.

Kimberly McGuire: Like what kind of

Ramon Roche: Do we want to recommend heart work to folks? Or two out of scope. Maybe the companion computer. On board. Yeah.

Kimberly McGuire: Yeah.

Ramon Roche: I mean, it's if we're gonna already talking about the software, what are we gonna run the software?

00:45:00

Ryan Friedman: Well, you know like we have turtlebot right that you can just buy and it will run Ross but we don't have a turtle bot for Ariel. Might might be something to consider.

Kimberly McGuire: Mm-hmm. True. Yeah there.

Joe Dinius: Yeah, that's interesting. Yeah or...

Kimberly McGuire: So there's quite a lot…

Joe Dinius: even I was even going to say or…

Kimberly McGuire: Oh sorry Joe.

Joe Dinius: even just sub components like I believe. Somebody from Osrf built like and maybe an ASIC or an FPGA specific psalm for vision acceleration. so, there may be components that, that could be I want to say sanction but there could be things that we could support this group for getting going quickly with the visual positioning system say

Kimberly McGuire: All…

Ramon Roche: Yep.

Kimberly McGuire: Yeah, yeah. Or at least like you know, we should probably Since we kind of are still kind of information gathering phase, we should first do some research, like what kind of platforms are already there. Like I've seen some nice things from holy bro, that made it good but also provides a couple of these

Kimberly McGuire: yeah, platforms that I've seen popping up here and there in some papers but they have been some more

Kimberly McGuire: Like standard platforms. I think Intel at one point had one, but then they stopped producing it.

Kimberly McGuire: So, but that wasn't nice. The one that a lot of people were using and were a bit upset about that they stopped, but it might be good to kind of include it also, in the overview in for the same reason…

Ramon Roche: Yeah, definitely.

Kimberly McGuire: why we want to collect autonomous tax.

Ramon Roche: I think we should definitely like a lay of landscape. See what? What's out there. And then there's a few open standards and open hardware groups that we can maybe work with to encourage manufacturers to release artwork. That would better benefit us. I think there's a disconnect between aerial roboticsists and the Harvard manufacturers into what we need and what they're building. So we we can definitely inform them through this exercise.

Kimberly McGuire: Here. Now technically, we are also a heart for manufacturer Are we presentation for?

Ramon Roche: And also, drunkard has drunkard has pixlock open hardware, so we I know it's why, why this is needed but not one. I don't want to make this about how drunk or so this is all about everyone. So I think having a report on this would be really helpful.

Kimberly McGuire: Yeah.

Kimberly McGuire: Yes. Oh yeah. And these motor ai I have seen that's quite often as well,…

Ramon Roche: Mm-hmm. Yeah.

Kimberly McGuire: although It's I guess like it's is maybe maybe that's also a good topic which platforms what is an area of your vehicle platform? um, because It is like size. And the the way of preparing is is very different actually And we have tiny drums, like the crazy flies, only 20. 20 grams up to like 20, 20 kilos, so and unfortunately crazy, if I cannot carry a model AI unfortunately, but we can kind of see

Ramon Roche: You didn't hear this from me but I know they're working on a new one soon. A new development kit.

Kimberly McGuire: Raven Base. I mean where I was at Northration based, but the chip from from Google. That's Ai Chip. Maybe that's Yeah.

Ramon Roche: oh yeah, I should

Kimberly McGuire: It's what's the name again? Yeah so death gets but I would say maybe not hard for components and death kits but maybe

Kimberly McGuire: yeah, Ariel vehicle types. Maybe.

Kimberly McGuire: Not only.

Ramon Roche: That's a different one.

Kimberly McGuire: Yeah. Google Girl. Yes exactly. Yeah.

Ramon Roche: Okay. Um, and then on the hardware and…

Kimberly McGuire: Any other?

Ramon Roche: wheels, and you can also talk about networking within the heart within the robot and…

Kimberly McGuire: Mm-hmm.

Ramon Roche: all that. Aerial vehicle types. Did you mean if we were in a differentiate between fixed wing and multicopter and such, or

Kimberly McGuire: Flapping wings Ptol.

Ramon Roche: Blip blimps and stuff.

Kimberly McGuire: Ymphs. Do we include all?

Ramon Roche: The rocket scan winner in arrow.

Kimberly McGuire: Yeah. A Alex. I'm afraid that you might be a little bit on the lights. So, I'm sorry if you've missed the Mr. Meeting because of like some miscommunication but we recorded everything. So yeah.

Ramon Roche: So we got six more minutes, it would be again maybe nice if we can end. Sooner than that. What what do we all think about the meeting or so far? Anything else that we need to capture? I think this is a good Overview of What We Should do for Step One Again,…

00:50:00

Kimberly McGuire: Okay.

Ramon Roche: everyone summary. Step one. Let's work on the robotics. Aerial robotics landscape. This is a suggestion of talks topics suggested by Kim. And I and then everyone else bitched in the call. if there's anything else that should probably be there, let's try to Add it now. And…

Kimberly McGuire: Yeah.

Ramon Roche: for the next goal or maybe offline, we can divide and conquer, maybe a few of us work on the autonomy, stocks and make the list, and then we separate and next time we we can have more info on those and…

Kimberly McGuire: Yeah.

Ramon Roche: then on the since we're going to do bi-weekly meetings, maybe one meeting is a work meeting and then the other is Let's say we started having the autonomy stacks for guests.

Kimberly McGuire: I would say…

Ramon Roche: We?

Kimberly McGuire: if I would like to make a suggestion but of…

Ramon Roche: Go ahead.

Kimberly McGuire: the person that's here, Should agree on that as well. Maybe in two weeks. Can we have a presentation about aerostek2? Miguel. Would that be possible? It doesn't have to be long, like maybe 20 minutes or so.

Miguel Fernandez: I have to take my calendar, but I think I could do it like in two weeks.

Kimberly McGuire: Mm-hmm.

Miguel Fernandez: The 10th of May, we are talking.

Kimberly McGuire: And the tenth of May, let's see. That is indeed into yeah, why not? If that's possible for you.

Miguel Fernandez: Okay, just to keep it short and brief, but we can do one.

Kimberly McGuire: Yeah, exactly. And I think maybe one of the precautions should be that's maybe people read the paper as well. So yeah. Yeah, no…

Miguel Fernandez: Okay, cool.

Kimberly McGuire: but I think since you're here already and the paper is really good and I haven't tried I respect to yet but I would like to love learn more about it. Yeah, okay. But that's indeed like the next meeting is going to be a presentation meeting and on the meeting after that is going to be a discussion meeting about any of the topics or perhaps, like the aerial landscape at that point. Yeah. So I will start or we will start a repository for the landscape. People will just start.

Kimberly McGuire: Making ball rest to deaths as things to it. And yeah, people would like for in the community. We repository at yourself as a member

Kimberly McGuire: Also by progress.

Kimberly McGuire: Yeah.

Ramon Roche: Does anyone need the length of the pull requests?

Ramon Roche: Here we go. This is the example. Pull request. Add yourself to the project.

Ramon Roche: Meetings lights again and…

Kimberly McGuire: Yeah.

Ramon Roche: then we'll wrap post everything on this guy. This course I,…

Kimberly McGuire: This course, yes.

Ramon Roche: yeah, the scored this course, is just confuses me so much. All right,…

Kimberly McGuire: Yeah.

Ramon Roche: are we all good? Now, anyone else have anything else to do that for today?

Ramon Roche: Well, I want to thank him for putting this together and for actually doing everything on her own. So I just showed up for the meeting.

Kimberly McGuire: But thank you for keeping us in…

Ramon Roche: Thank you, Kim.

Kimberly McGuire: I, I Yeah,…

Ramon Roche: I'm also doing this for my own benefit.

Kimberly McGuire: no, but I'm very happy. Like, okay. It wasn't 30 people, but I think we got some very first full discussions in it. And I'm excited for what we can do together. Let's make that landscape and that's make some development goals. Yeah.

Kimberly McGuire: it's Bye.

Ryan Friedman: Go back.

Joe Dinius: Thanks everyone.

Miguel Fernandez: By.

Kimberly McGuire: The recording is stops.

Ramon Roche: Can I just came like you soon?

Kimberly McGuire: Yeah, talk to you soon. I saw that. Somebody joins very last minutes, I'm sorry. The meeting is already over.

Kimberly McGuire: But yeah, I hope it was not. Oh, this person has already gone. Okay, bye-bye.

Meeting ended after 00:54:40 👋