

Applying for funds from the Moira Whiteside Orienteering Bequest

Interview with Tate Needham

Hania Lada: Congratulations on your successful application with Fedor Iskhakov and Michael Reed for a grant from the Moira Whiteside Orienteering Bequest.

Tate Needham: Thanks Hania! We are very excited and grateful to have been awarded a grant from the Moira Whiteside Bequest. It will really give a boost to this project and bring its timeline forward.

H: First, please tell us about yourself as an orienteer. Did any non-orienteering skills and experiences help you in getting the grant?

T: I have been orienteering since 1987 when it was my chosen school sport. After a hiatus after uni, I jumped back in and also introduced my kids and wife to orienteering. I especially enjoy travelling to new places and experiencing new maps, as well as all the social aspects and helping out where I can with mapping, course setting, controlling and I also had a stint on the OACT Board.

I studied Engineering at University and have fond memories of building computers using individual memory chips, CPUs, and other discrete components; connecting them all up with wires and then trying to make it work. In recent years I have tinkered with Arduino and other small electronics projects.

My career has been writing software for government, private companies as well as running my own software consulting business. I especially love creating mobile apps on iOS and even made one for myself for viewing, searching for and navigating to orienteering events in Australia. I released it a couple of years ago on the App Store - search for 'Aus O Events!' This radio control project has been combining both my hardware and software interests, and together with Fedor and Michael, we have a strong team.

H: What are you going to use the grant for?

T: Our grant application is for the development of a radio control system, with an implementation goal of using it for the Australian MTBO Championships in October. This project was started in 2020, but of course time and money tend to get in the way, plus it takes considerable effort to finalise a prototype to a device that can be used reliably in the field.

The current state of the project is that we have a working prototype, but with some rough edges, incomplete software, and not packaged. The grant money will be used to do some modifications to the PCB (printed circuit board) design and manufacture a small number of version 2 boards. Once these have been verified as working, then we will order a production run (or do a version 3). Then comes packaging the hardware in waterproof enclosures, so considerations such as how to run cables, what batteries to use, how to waterproof the antenna, how to mount the various components, etc. This process requires purchasing a lot of different parts and testing them out to see which ones work best for these radios.

Finally, our grant proposal was to produce 10 final units.



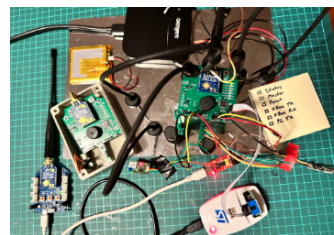
Michael Reed, Tate Needham and Fedor Iskhakov.



meshO live



Prototype.



Work in progress.

H: Could you please explain the process of applying for the grant?

T: We first approached the OACT Board in relation to financial assistance for this project, and they suggested we apply for the Moira Whiteside Bequest grant. It was then a process of doing a proper business plan and figuring out realistic timelines, approximate costs, and also including documentation of the current project state and a quote for another run of prototype boards. As a very technical project, it was important to explain not just the high level benefits (safety and live commentary), but also the difficulty and the various costs involved in bringing this kind of product to market. We also included some future directions once we achieve the first stage.

H: What advice can you give to other orienteers who have ideas about development of orienteering in Australia and would like some financial help with implementing them?

T: I think it's important that a project is far enough along so that there's a high level of confidence of success. Also - think of how such a project can progress orienteering, especially from a technology perspective, and how it fits in with Orienteering Australia's Great Opportunities. I personally find that working in a team with others will significantly boost motivation, as well as combining everyone's strengths and giving different perspectives. Talk to other orienteers and really investigate what kind of issues the sport has and how they can be improved.