Minutes 20-04-2016

Parth:

* Particle collection. Designed a collection system with rotating tubes.
  + Discussion on the size of the collectors and where to place it on the plane.
  + Alternative solution to rotate the tubes themselves rather than a mask that only reveals one at a time.
* Electrostatic testing. Use a plastic container containing ash to determine the electrostatic charge.
  + Contains a large amount of ash.
  + Generates much greater than the 3.2 V that the arduino can detect.

Test rig:

* Alternative designs included:
  + Wind tunnel.
  + Rotating cylindrical drum.
  + Stirplate method.
  + Fan attached to motor.
  + Use high-pressure nitrogen hose to disturb ash.
* Where to attach the sensors:
  + On the outside of the rig.
  + Inside on the wall of the rig.
  + On a pipe in the middle that does not rotate with the rig.

Jamie:

* Ready to order the optical partical counters for testing.
* No arduino code for the sensor recommended by NIWA.

Other:

* Not ordering BOM yet.
* Can take PIXHAWK off the NIWA project to save money.
* Possible visit to John Brittan (NZi3) building first or second week back.
* Hydrophobic spray is a possibility but would add complexity and cost.