American-Made Solar Prize Round 7

Ready! Contest Technical Assistance Request

Solar Unsoiled

The areas of technical assistance Solar Unsoiled requests assistance in technology development in the following three areas.

Machine learning methods: Solar Unsoiled employs three methods for soiling analysis (predictive modelling, data analytics, on-site microscopy). The analysis of these methods are currently separate. Our team sees benefit in utilizing machine learning techniques so that the analysis and unique data from each of the methods can learn from each other to provide highly accurate soiling estimations.

Geospatial interpolation statistics: As our soiling loss data-base grows, improving geospatial predictions of soiling losses will help to improve our analytics. Assistance in the applying the best statistical methods will be needed to allow our soiling data-base to become another source of predictions.

Satellite image analysis: The Solar Unsoiled team believes that satellite imagery can be used to estimate soiling. Insights into advanced image analytics will be needed to use satellites to remotely estimate soiling losses.