

Week	Tasks	Checkpoints
Community Bonding Period (April 20- May 17)		
May 18 - 31	1) Switch to using the converted SDSS DR10 Archive Server - familiarity with the API for SDSS http://data.sdss3.org/documentation 2) Generate Individual colored mosaic (g,r,i) manually; also u,z files but not mosaic-ed 3) Fix the readfile.py to generate data in the desired output format. 4) Solve the centering the galaxy (how to retrieve multiple images around the given RA,DEC coord and center the mosaic around it.)	Checkpoint 1: Complete a scientifically-calibrated color image mosaic for a single galaxy
June 1 - 15	1) Fine tune values in STIFF config file to optimize color image 2) How to identify and deal with galaxies that are cutoff from the edges? What neighboring images should be retrieved for mosaic? Generic algorithm. 3) Resolve issue of uncentered galaxies inherent to RC3 catalogue.	
June 16- 29 (June 27 Midterm Evaluation Deadline)	1) Resolve the radius issue 2) Resolve STIFF issue for differing image height. 3) Figure out a way to retrieve run, camcol, field given the RA,DEC value ? 4) How to parse results from Coverage Check to Python form (i.e. how to record down the list of galaxies that don't lie in SDSS footprint without throwing an error?) 5) Complete Paperwork for midterm evaluation	Checkpoint 2: Generalized an algorithm for the whole mosaicing pipeline that works for all kinds of galaxies in the rc3
July 1 - 13	1) Automating the mosaic-making process 2) Writing Exception catches for common warnings and errors, ex. FileNotFoundError when server is down 3) *Make use of other variables in rc3.txt for database? 4) Start thinking about what to do for Web backend storage of resulting files	Checkpoint 3: Completely Automated the mosaic-making process
July 14 - 27	1) Building a searchable database that stores info about each galaxy in the RC3 as well as for backend storage of data	
July 28 - Aug 10	1) Building a search engine that queries the RC3 galaxies based on user-defined parameters (SQL-based?) 2) Creating a GUI for search engine's front end 3) * Expanding it to different datasets (other DSS, DES?) 4) * Reduce image artifacts as noted in Hogg's RC3 (by using image quality flags in SDSS's data?)	Checkpoint 4: Completed building a backend storage for Web display of data
11 August:	Last stage: 1) *Document and develop a pipeline for how to use this program for mosaic creation on rc3 galaxies in different future surveys and data sets 2) * Link to interactive sky map from CAS SDSS Navigator tool or Aladin (VOTable XML file from STIFF?)	Checkpoint 5: Finish documentation. Complete everything. Writing comprehensive tests and make sure things work.
Aug 11- 22 (Aug 22 Final evaluation deadline)	Submit final evaluation	
	Labelled (*) means possible extensions for the project but it is not essential to making the project work. Will add more details to the later week plans as time progresses and when I have a clearer idea of the specifics of the next step. (Updates on GitHub: https://github.com/dorislee0309/workarea-rc3-project)	