PDR Action item #6: Will the system that you demonstrate at ImagineRIT differ from your operational system and if so, how?

The two systems will have many similarities, because we are trying to demonstrate the function of the array in the airport as accurately as possible. The type of camera will be the same in both systems, as well as the spacing of the cameras so we can use the same code to stitch images together. The system demonstrated at ImagineRIT will be operated the same way as our operational system, through the use of a slider to change the depth of field to see past occlusions. In general, we will be using the same system in both locations, but we will need to modify it for demonstration purposes. These modifications include making the system more portable, reducing the number of cameras and other minor tweaks to ensure the demonstration will run smoothly.

The space we have available to us at ImagineRIT is very different compared to the space we are planning to cover at the Rochester Airport. Originally we intended upon using a multi=camera array to see through occlusions near the security checkpoint area. However, after making a visit to the area, we realized that the goals of the airport security at this spot can be achieved without an advanced multi-camera system. If we continued building the system for this spot, it would be more technology than needed and a waste of time and money.

We met again with the head of airport security to discuss another place within the airport that we could focus on instead of the security checkpoint. We concluded that the baggage claim area was also a high crime rate area and that a multi-camera array system would be more appropriate there. The width of the baggage claim space at the airport is 40 feet wide, while the booth available to us at ImagineRIT is about 15 feet wide. This means that the system at ImagineRIT will have fewer cameras than the one at the airport. The plan for mounting our cameras at the airport is to position them hanging from the ceiling near the wall. This results in them being higher than eye level, so they will need to be angled down. At ImagineRIT, we plan on having a standing system at eye level, which wouldn’t require us to angle the cameras. The cameras could be positioned straight forward. The system at ImagineRIT will need to be portable, so we will position it on a cart with wheels. The airport system will not be portable because it will remain hanging from the ceiling.

The multi camera array we build for the airport will be different from the system we show at ImagineRIT for demonstration purposes. The system we are building for the airport will be hardwired into the current infrastructure at the airport therefore the cameras will be displayed and controlled at the current control room. This means that the we will need to provide our own live feed display at ImagineRIT, however the wiring to that display will not need to be as lengthy nor concealed. Since ImagineRIT is a live demonstration, we will only need to live stream the video and not record it to a drive for later accessing. The ImagineRIT system will not need to be concealed in a smoke dome unlike that of the Airport system.