

Raspicam docs have a lot of info on streaming video...

Grayson has been using HTTP streaming to the web app. Framerrates/delay have been a bit of an issue

Might be smarter to use TCP link and send the video to a standalone instance of VLC player

RTP builds on UDP. Using RTP specifically for the Pi-Pi streaming may be a good idea

The *raspivid* command can be piped to *cvlc* to send an RTP stream out. This may solve our problems on the sensor nodes.

The network master node could

We need to think about how the video gets from a UDP stream to the network master node to the web interface. VLC may be involved, either running on the instructor station or on the network master node perhaps (to intercept/forward the stream in a different format)

For the video: Whatever you have for “show and tell” - trying to overcome this hurdle, etc. - include several of these as well as an overview of what’s going on with your system. Write down the what you’ve been trying to get done, what you have done, what you’ve done so far / tried so far; things that did/didn’t work; any demos. Show a “Current Status”

May want to ask about the video requirements.

AA battery holder/power supply for Pi – may be something to look into (we need more capacity though)

Possible risk – no hardware people on the team; power supply problems will be an issue.

Testing – buy some battery packs (USB power banks) – USB-C capable.

ZeroMQ – Dr. D uses it for interprocess communication (even on the same host)

For controlling the thing, ZeroMQ might make sense. It lets you make complicated topologies. It even works if one of the hosts isn’t awake.

There are Java/Python ZeroMQ packages/libraries available

A good how-to would be to have a Spring Boot site that communicates to other stuff over ZeroMQ

Could have a broadcast to reach all Pis in the group

Spring Boot side is easier – that’s the sender

If you send a command, you want a response. Make sure you can get a response easily. Kafka might be appropriate

(After Dr. D left, we planned out who will do what for the presentation)