

Email Message

Goodmorning everyone,

This week our group touched based to begin the V&V report. We discussed our design specs and how we will go about verifying and validating our design through the specs. We took out the "simplicity" spec because it was too vague, and we replaced it with the characteristic of our device to allow airflow through to the vocal cords for patient speech. Kyle has the linear actuator working controlled by an arduino, so we will attach it to a syringe with saline or water to test it out with an added piece of our device. On Sunday our group will meet to figure out a material to use for the balloon. We will meet again on Monday to put all of our V&V information together to organize our report. Thank you and have a great weekend!

Best,

Brian, Kyle, and Taylor

Project created on 06.09.2016 02:03.

# Report for project Senior Design

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Task created on 22.02.2017 19:06.

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## Group Meeting 2/22/17

*No due date*

-Gearing up for V&V report due next Friday -Refining design specs -All group members present

Task tags: *No tags*

### \* V&V Report Discussion Created by Brian on 22.02.2017 19:40.

-Taking out "simplicity" design spec and replacing it with ability for device to allow air to pass through for speech

- Kyle has the linear actuator working: controlled by Arduino, powered by 12V battery -Will test it out w/ saline syringe

-Details of pressure application -10 minute pressure, 5 minute relaxation to keep tissue alive -This given to us by client as a starting point -Arduino programming allows for adjustable values so we can test and adjust as necessary -Arduino programming only in milliseconds - minutes to msec converts to 600,000 msec application and 300,000 msec relaxation -For report, show this as proof of concept and afterwards think about better time phases

-Applied pressure value -TBD for now, need a pressure gauge

-Portability -Device will be scaled up

-Cyclic Behavior -Test once linear actuator/arduino is hooked up w/ syringe

-Results of proof of concept testing -Kyle emailed Ali today to clarify what this means

-Consider including CAD drawings/pictures

-Team meeting Sunday to work on balloon material

Team meeting Monday at 5:30PM to start V&V report

### Comments for result V&V Report Discussion

*No comments*