

Creating an emotive robotic face to inspire trust in telepresence and autonomous rehab

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Abstract

Introducing robots into physical rehabilitation can both decrease costs and improve outcomes². However, regardless of technical ability, if the patient is unwilling to cooperate with the robot, it will ultimately be ineffective. We wish to introduce Lil'Flo, a robot whose central point of expression is an LED-based emotive face. We outline the design decisions made in constructing Lil'Flo's face, highlighting how each feature fulfills our two core design goals: making sure Lil'Flo can both be easily assembled and disassembled, as well as be a comforting presence that patients will be willing to engage with.

Need

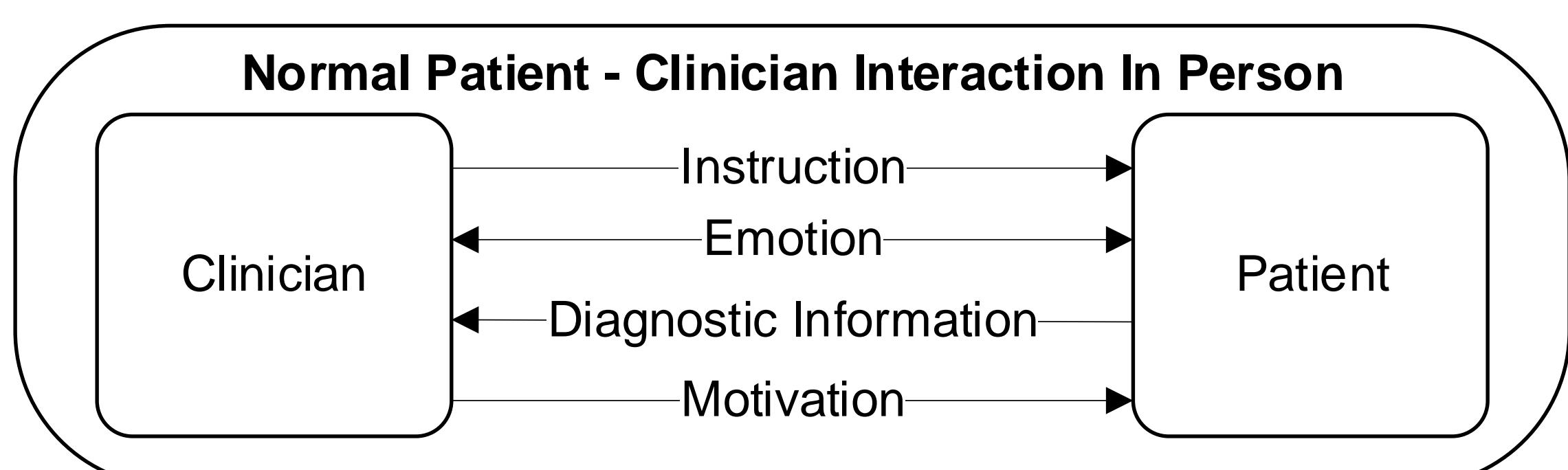
- This class is based off of tikz poster
- The idea is that you make columns to organize your poster
- You can nest columns
- You can change the number of columns part of the way down the page

System

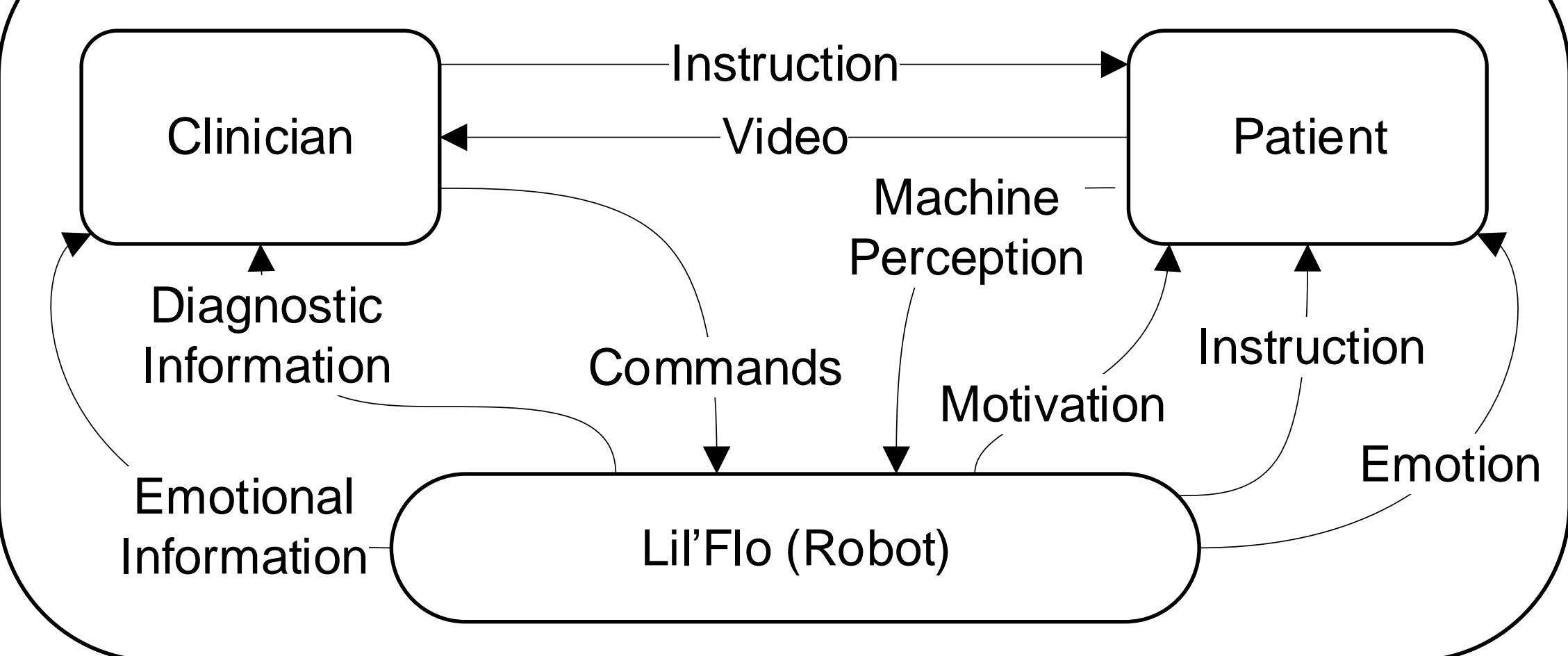


You can include figures as shown here

A flowchart from visio



Patient – Clinician - Robot Interaction



here is a flowchart from visio, it should be remade using tikz

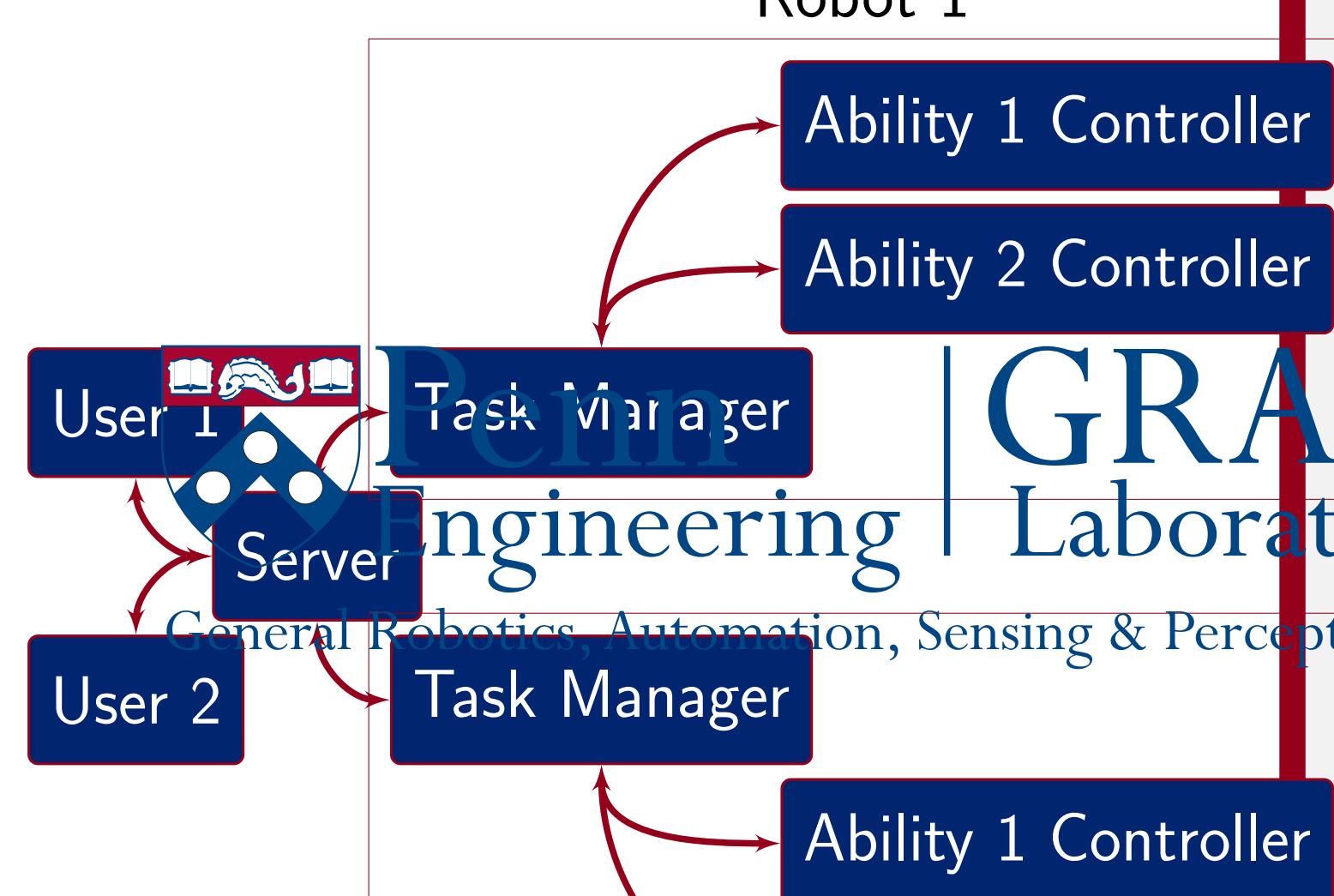
Some of the critical code

- You can change to have a landscape poster by changing the top line to say: \documentclass[landscape]{RRLPoster}
- You encase each set of columns by a \startcolumns and \endcolumns
- You then enter the columns (left to right) with a \column<percent width you want>
- You then create a block with a call to \block<block title>block contents
- You can find out more from the tikz poster sharelatex docs: <https://www.sharelatex.com/learn/Posters#Tikzposter>
- You can also take a look at the tikz poster manual: <http://mirror.hmc.edu/ctan/graphics/pgf/contrib/tikzposter/tikzposter.pdf>

taskse

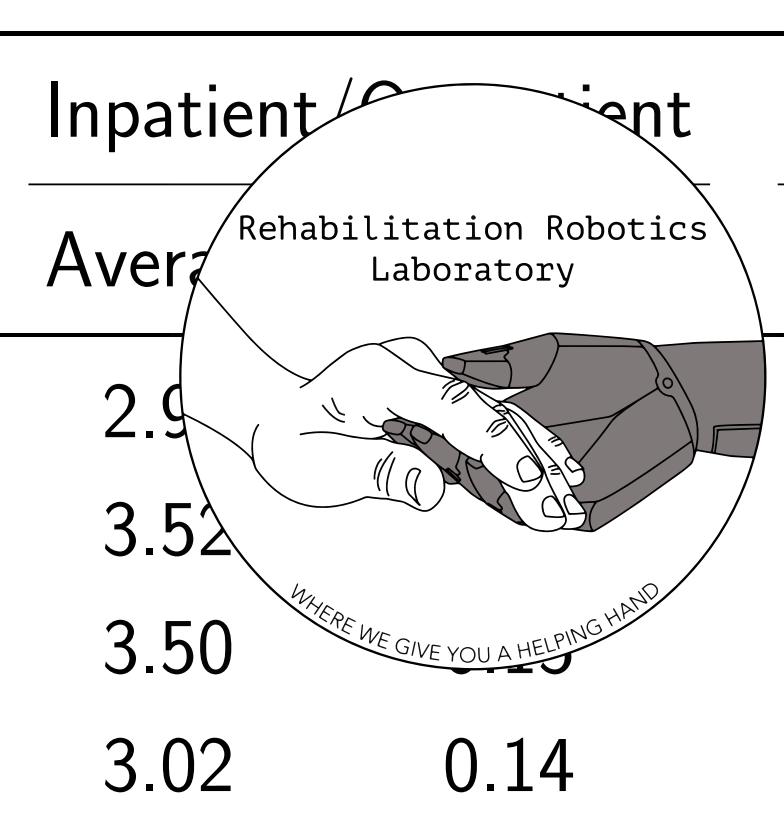
Here is a tikz based flowchart, kinda cool.

Robot 1



A Table

It is important for style that tables not have any vertical lines, as seen here. You can find plenty of style guides on how to make good tables.



	Inpatient	Senior Day Care
Average	2.9	3.55
Std. Error	0.18	0.64
P-Value	(1)	(2)
Intelligent?	3.52	3.65
Helpful?	3.50	3.79
Useful?	3.02	3.32
Social?	0.14	0.25

A pgf plot

