**NodeGoose - System Level Architecture V0.2**

**HTML**

**Javascript**

**Server - NodeJS**

- **Express** interface to HTTP requests

- **JavaScript** interface to Dobot Drivers

**Dobot Drivers - JavaScript**

**-Regex** to parse input/output

-**buffers** for Dobot commands

**-serialport** for machine I/O

**socket.io ( 'dobot client' )**

**socket.io ( 'server response' )**

**HTML**

**JavaScript**

**Client - Browser Window**

**Heartbeat()**

**SerialPort**

**Read**

**SerialPort Write**

**Hardware - ElectroMechanical**

-Dobot Robotic Arm

-I/O SerialPort over USB

-Arduino ATMEGA 2560

**next()**

**Command Queue**

**SerialPort**

**Get State**

**User Feedback:**

Dobot State / Position

Dobot Camera View

**Client - Browser**

- mobile or desktop

**UI/UX - AngularJS**

- $scope for state mgmt

- $http for post/get

- btford.socket-io

- $ngTough, $rzModule,

$ui.bootstrap for UI

**User Controls:**

-->upload

-->jog motion

-->mouse

-->sliders

-->buttons