

# MEETING MINUTES

## Topic: Staff Meeting

Date: Thursday, June 24, 2019

Time: 5:30pm - 6:00pm

Location: Engineering Building Rm. 321

Minutes recorded by Nestor Rodriguez

Meeting called by Dr. Trevas

Attendees: All group members

Table 1. Record of meeting.

<p><b>5:30 pm to 5:40 pm</b></p>	<p><b>Item 1</b></p> <ul style="list-style-type: none"> <li>• Discuss electric actuated jack           <ul style="list-style-type: none"> <li>○ Can tap into the hydraulics and place a pressure gauge to the hydraulic cylinder</li> <li>○ Otherwise maybe use load cells</li> <li>○ Don't know if this is practical</li> <li>○ How do you control pressure in an electric jack?               <ul style="list-style-type: none"> <li>▪ Some jacks simply run the motor backwards</li> </ul> </li> <li>○ Could find out how much force corresponds to a revolution of the motor               <ul style="list-style-type: none"> <li>▪ Program motor to go to correct force</li> </ul> </li> <li>○ Diameter of cylinder: ?</li> </ul> </li> </ul>	<p>EGR Building Rm. 321</p>
<p><b>5:40 pm to 5:45 pm</b></p>	<p><b>Item 2</b></p> <ul style="list-style-type: none"> <li>• Discuss Bearing selection           <ul style="list-style-type: none"> <li>○ Angular contact ball bearings?               <ul style="list-style-type: none"> <li>■ 2:1 force ratio</li> <li>■ may be needed due to axial loading</li> </ul> </li> </ul> </li> </ul>	<p>EGR Building Rm. 321</p>
<p><b>5:45 pm to 5:50 pm</b></p>	<p><b>Item 3</b></p> <ul style="list-style-type: none"> <li>• Discuss cost cutting for hydraulics           <ul style="list-style-type: none"> <li>○ Use: NorTrac 12 Volt DC Hydraulic Power Unit               <ul style="list-style-type: none"> <li>■ 2000lb force</li> <li>■ Need 3in diameter bore</li> <li>■ Need larger axial jacks</li> </ul> </li> <li>○ Cost including valves and fittings: 1590.26</li> </ul> </li> </ul>	<p>EGR Building Rm. 321</p>
<p><b>5:50 pm to 5:55 pm</b></p>	<p><b>Item 4</b></p> <ul style="list-style-type: none"> <li>• Discuss raw materials           <ul style="list-style-type: none"> <li>○ More expensive than thought</li> </ul> </li> </ul>	<p>EGR Building Rm. 321</p>

	<ul style="list-style-type: none"> <li>○ Need 6x6x12in solid steel bar <ul style="list-style-type: none"> <li>■ costs \$994.00</li> </ul> </li> <li>○ Maybe buy small pieces and weld together? <ul style="list-style-type: none"> <li>■ Weld should be stronger or as strong as material</li> </ul> </li> <li>● May need to use trusses</li> </ul>	
<b>5:55pm to 6:00</b>	<ul style="list-style-type: none"> <li>● Discuss force sensors <ul style="list-style-type: none"> <li>○ Force sensors are a no go, they only handle 20lbs</li> <li>○ Problem: Mounting load cell</li> </ul> </li> </ul>	EGR Building Rm. 321

**Table 2. Tasks Assigned.**

<b>Task</b>	<b>Person Assigned</b>	<b>Due Date</b>	<b>Date Complete</b>
Improve hydraulic system	Nestor	1/29/2019	1/28/2019
Figure out which machine bearings to use	Blake	1/29/2019	1/28/2019
Find out feasibility of using a strain gauge for a compressive load	Jeff	1/29/2019	1/28/2019
Figure out method on how to build the frame	A.J.	1/29/2019	1/28/2019
Find out inner workings of electrically actuated hydraulic jack	Barek	1/29/2019	1/28/2019

**Next formal meeting: 1/29/19, Web Meeting, at 4:00pm.**  
**Next member responsible for meeting minutes: Nestor**