# **MEETING MINUTES**

### **Topic: Meeting for Team 19 - Modified Bicycle Design Team**

Tuesday, November 1, 2016 4:15 pm to 5:45 pm

Minutes recorded by K. Zoe Lucke

Meeting called by Instructor David Trevas

Attendees: Fahad Alajmi, Matthew Palmer, Basem ALghamdi, K. Zoe Lucke, and Alex Lawson

Table 1: Record of meeting

4:15 pm to 5:00 pm	<ul> <li>Discussion on Testing Procedures</li> <li>Discussed different testing procedures based on customer and engineering requirements.         <ul> <li>o Testing Procedures outlined in Table 3</li> </ul> </li> </ul>	Dub Bois Center Rm 19
5:00 pm to 5:10 pm	<ul> <li>Discussion of Final Solutions</li> <li>Final Solutions to be pursued:         <ul> <li>Spring Crank Set Slider</li> <li>Improved Gear Ratios/Shortened Crank Arm</li> </ul> </li> <li>Decided to wait on the individual analyses before further discussion.</li> </ul>	Dub Bois Center Rm 19
5:10 pm to 5:25 pm	<ul> <li>Discussion of Prototype for Presentation 3</li> <li>Proof of concept (Visual)</li> <li>Try cardboard first</li> </ul>	Dub Bois Center Rm 19
5:25 pm to 5:40 pm	<ul> <li>Discussion of Manufacturability         <ul> <li>Discussion on which parts should be ordered/bought and which parts should be machined:                 <ul> <li>Gears are ordered/bought</li> <li>Springs are ordered/bought</li> <li>Pedals are ordered/bought</li> <li>Crank arms are ordered/bought</li> <li>Machine the slot in the crank arm</li> </ul> </li> </ul> </li> </ul>	Dub Bois Center Rm 19
5:40 pm to end	<ul> <li>Discussion of Upcoming Deadlines</li> <li>Noted that Team Meeting 3 is due on 11/6/16</li> <li>Noted that the Individual Analysis is due on 11/11/16</li> </ul>	Dub Bois Center Rm 19

#### Table 2: Tasks Assigned

Task	Person Assigned	Due Date	Date Complete
Contact Dr. Raab (client) to approve final solutions	Fahad Alajmi	11/8/16	
Individual Analysis	Everyone	11/11/16	

#### Table 3: Discussed Testing Procedures

Testing Procedures:
1) Knee angle testing – take pictures of knee angle at key locations
2) Torque test – 3D print test platform, use belts to test the torque
3) Falling weight test – Outlined in the Engineering requirements
<ol> <li>Seat height test – to see how much higher the seat must be in order for the knee angle to be less than 90 degrees throughout the pedal stroke</li> </ol>
5) Gear test – test the force/time it takes for a foot to reach the bottom after applying pressure.

## Next formal meeting: 11/9/16, Internet Cafe, Engineering Building, at 6:30pm.