

# FLUID POWER ACTION CHALLENGE

## Procedures for a “in-school” event.

*The following is a list of steps that teachers and organisers will take to plan and execute the Action Challenge*

Actions	Deadline	
<b><i>Prior to Challenge - Teachers</i></b>		
<ul style="list-style-type: none"> <li>• Read <i>Notes for Teacher-Organizers file</i> carefully, paying attention to how much time will be required both on your part and that of your students.</li> </ul>		
<ul style="list-style-type: none"> <li>• Receive and check contents of shipment of kits against packing list. If any items are missing, contact <a href="mailto:support@mechanical-kits.com">support@mechanical-kits.com</a></li> </ul>		
<ul style="list-style-type: none"> <li>• Review documentation and support materials</li> </ul>		
<b><i>Set overall timeframe for project and detail length of “learning episodes” (e.g., 3 X 1-hour classes per week)</i></b>		
<ul style="list-style-type: none"> <li>• Estimate timeframe over which the students will do the Introductory “Workshop” activities and the timeframe for design and building their prototype and finishing their portfolio</li> </ul>		
<ul style="list-style-type: none"> <li>• Set the date for the Challenge event when the four-member team(s) will build and demonstrate their device</li> </ul>		
<b><i>Progression through to the Challenge</i></b>		
<ul style="list-style-type: none"> <li>• Watch the Introduction to Fluid Power video</li> </ul>		
<ul style="list-style-type: none"> <li>• Review the documentation for the team</li> </ul>		
<ul style="list-style-type: none"> <li>• Introduce materials, tools and construction methods by building a Design Process Cube and demonstrate drilling a hole in the plunger of a syringe</li> </ul>		
<ul style="list-style-type: none"> <li>• Build the Lifter, Clamp and Rotating Base from Workshop Kit Devices</li> </ul>		
<ul style="list-style-type: none"> <li>• Review the Challenge Scenario in detail</li> </ul>		
<ul style="list-style-type: none"> <li>• Make students aware of the importance of the Design Process and how to score points in the Portfolio</li> </ul>		
<ul style="list-style-type: none"> <li>• Explore the materials and tools available for building the Challenge Scenario device</li> </ul>		
<ul style="list-style-type: none"> <li>• The team builds a prototype and writes/illustrates the team’s Portfolio</li> </ul>		
<ul style="list-style-type: none"> <li>• Interview questions will be written responses documented in the portfolio by all team members, each responsible for one question</li> </ul>		
<b><i>Teacher and Organizers</i></b>		
<ul style="list-style-type: none"> <li>• Organize an in-school Challenge Event and ensure communication channels are open with Host</li> </ul>		
<ul style="list-style-type: none"> <li>• Have students complete and submit media release forms</li> </ul>		
<ul style="list-style-type: none"> <li>• Facilitate an “in-school” Challenge Day: team(s) build, test and demonstrate device; teacher uses Judge’s rubric to evaluate the team’s work and its device including interview questions.</li> </ul>		
<ul style="list-style-type: none"> <li>• Complete and distribute certificates to students, and complete and submit feedback form to NFPA</li> </ul>		