# 2020 NATIONAL FLUID POWER CHALLENGE

# TEACHER ACTION PLAN

*The following are the actions that you as a teacher at your school will need to take to plan and execute your Fluid Power Challenge.* ***Using this document as a checklist will greatly improve the chances that your students will achieve success in the Challenge.***  *V1 2019 09 27*

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| **Actions** | **Deadline** | **✓** |
| ***Prior to submitting your application*** | | |
| * Read *Notes for Teacher-Facilitators file* carefully, paying particular attention to how much time will be required both on your part and that of your students. |  |  |
| * Once you have determined that the required time will be available, obtain administration approval for proceeding with your application and confirm that your school will pay the $125 registration fee for each class participating in the Challenge at your school. |  |  |
| * Complete and submit your *2020 Team Application Form(s) (Part 1)* to the CFPA | Dec 1, 2019 |  |
| ***After your application is accepted*** | | |
| * Order materials and, if required, tools and layout boards from Mechanical Kits. |  |  |
| * Receive and check contents of shipment against description in *Notes for Teacher-Facilitators*. If any items are missing, contact Mechanical Kits. |  |  |
| ***Setup a timetable for the Challenge including*** | | |
| * Estimate timeframe over which the class of students will do the Workshop activities. |  |  |
| * Set target date on which the four-member team will build and demonstrate their device. |  |  |
| ***Progress through the Workshop Lessons with the entire class*** | | |
| * Watch the introduction to Fluid Power video |  |  |
| * Review or introduce the Fluid Power Fundamentals document |  |  |
| * Introduce materials, tools and construction methods by building a Design Process Cube and demonstrate drilling a hole in the plunger of a syringe |  |  |
| * Build the Lifter and Rotating Platform Devices |  |  |
| * Review the Challenge Scenario in detail |  |  |
| * Make students aware of the importance of the Design Process and the Portfolio that they will use to document it |  |  |
| * Explore the materials and tools available for building the Challenge Scenario device |  |  |
| * All students build part or all of a prototype and write at least part of a Design Portfolio |  |  |
| * Evaluate student’s work using the Parts X and Y of the rubric |  |  |
| * Select a four-student team for the Challenge Day and reconfirm a date for the completion of the Design Portfolio and the device demonstrations | No later than Apr 24, 2020 |  |
| ***Selected team works on Challenge Scenario Design Portfolio and Device & submits work*** | | |
| * Submit updated registration form with student names to CFPA |  |  |
| * Get two judges for the Challenge Day |  |  |
| * Have students complete and submit media release forms |  |  |
| * Advise local media and school board personnel of Challenge Day |  |  |
| * Challenge Day: school team builds, tests and demonstrates device; judges use rubric to evaluate the team’s work and its device |  |  |
| * Forward two-minute demo video, judges scoresheet and portfolio to CFPA | May 15, 2020 |  |
| * National panel of judges evaluates using Parts X and Y of the rubric; winner announced | May 25, 2020 |  |
| * Complete and distribute certificates to students |  |  |
| * Complete and submit feedback form to CFPA |  |  |