

2016 safety inspection protocol - EXPLORER

- All **EXPLORER** companies are required to **submit the following to the MATE Center by May 1st, 2016:**
 - A video demonstrating that their vehicle can accomplished the task outlined under the EXPLORER CLASS DEMONSTRATION REQUIREMENT in the competition manual.
 - A **company spec sheet**. This is a one page information sheet about the company and their vehicle.
 - A **systems integration diagram** or SID. SIDs should make a clear distinction between topside and underwater systems. SIDs must be completed using a CAD program.
 - Laser specifications, if applicable.

The MATE technical team will review these items and respond by May 15th, 2016.



2016 safety inspection protocol - RANGER

- At least **TWO** weeks prior* to your regional all **RANGER** companies are required to **submit to your regional coordinator**:
 - A **company spec sheet**. This is a one page information sheet about the company and their vehicle.
 - A **systems integration diagram** or SID. SIDs should make a clear distinction between topside and underwater systems. (See the next slide for an example.) SIDs must be completed using a CAD program.
 - Laser specifications, if applicable.

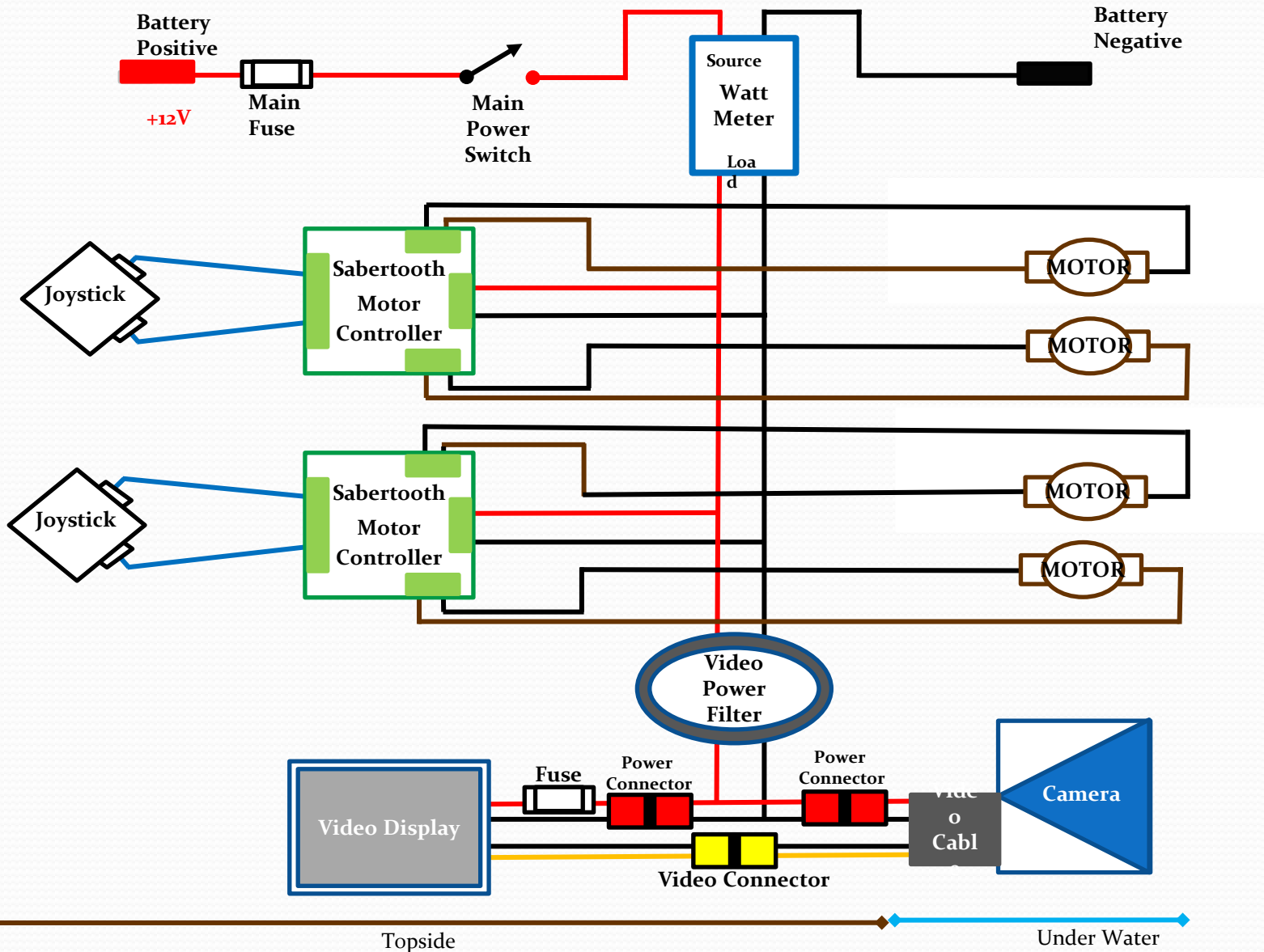
The goal is to provide the safety inspectors with time to review the information and familiarize themselves with the vehicles prior to the contest. If the safety inspector identifies a safety concern, he/she can contact the company(s) in advance OR ask for help from the MATE technical team.

*If your regional requires technical reports to be submitted earlier than 2 weeks prior to your event, these documents may be submitted along with your report.

RANGER companies advancing to the international competition are required to resubmit this information (along with their technical documentation) to the MATE Center 4 weeks prior to the international event.



Example SID – TriggerFish with Analog Controls



2016 safety inspection protocol – NAV & SCOUT

- On **the day of** the contest, all **SCOUT** and **NAVIGATOR** companies are required to **submit to your regional coordinator**:
 - A **systems integration diagram** or SID. SIDs should make a clear distinction between topside and underwater systems.

*If your regional requires technical reports to be submitted earlier than 2 weeks prior to your event, these documents may be submitted along with your report.

Fluid power quiz – EXPLORER & RANGER

- If EXPLORER and RANGER companies are using fluid power (pneumatics or hydraulics), they **MUST** pass the MATE fluid power quiz.
- The deadline to pass the fluid power quiz is **March 4th, 2016**.
- MATE will circulate a list of **EXPLORER** companies that have passed the fluid power quiz; regional coordinators will circulate a list of **RANGER** companies that have passed the fluid power quiz.
- Companies that have not passed the quiz **MAY NOT** use fluid power, NO EXCEPTIONS.
- Companies must pass the fluid power quiz to use pneumatics and hydraulics for pool practice or other demonstrations.
- Any company using fluid power must submit a fluid power SID along with their electrical SID two weeks prior to the event.
- See the competition manual for more information.



Fluid power quiz – NAVIGATOR & SCOUT

- NAVIGATOR and SCOUT class companies **do not** have to take or pass the fluid power quiz. However, all pumps must be hand powered and any container must be open to the pool (see *3.6 Fluid Power* in the competition manuals).
- Any NAVIGATOR or SCOUT company using fluid power must submit a fluid power SID along with their electrical SID on the day of the event.



Lasers

- EXPLORER and RANGER class companies must submit laser information to the MATE Center by have any laser pre-approved by **March 4th, 2016**. Lasers not approved by the MATE Center are NOT permitted to be used during competition.
- MATE will circulate a list of companies that have been approved to use lasers. Companies not on this list **MAY NOT** use lasers on their vehicle.
- NAVIGATOR and SCOUT class companies are **NOT** permitted to use lasers on their vehicles.



New in 2016 – EXPLORER & RANGER

Five points will be subtracted from the safety inspection points if:

- Companies do NOT submit the company spec sheet and SID by May 1st , 2016 (EXPLORER) or two weeks before their regional (RANGER).
- The SID does not show a fuse or a fuse that does not use an ANSI, NEMA or IEC symbol.
- The vehicle uses fluid power, but a fluid power diagram is not included.
- The company spec sheet and technical documentation is not submitted in a searchable PDF format.
- Technical documentation over 8MB in size.
- Fuse calculations are not shown on the SID.



New in 2016 – NAVIGATOR

Five points will be subtracted from the safety inspection points if:

- The SID does not show a fuse or a fuse that does not use an ANSI, NEMA or IEC symbol.
- The vehicle uses fluid power, but a fluid power diagram is not included.



International competition safety inspection process*

- Safety inspection judges will visit companies at their assigned work stations to perform a safety inspection. Companies should have a copy of their SID available for safety checks.
- At registration, companies will be given a red flag (or card). After they have set up their system and are ready for inspection, companies should display the red flag. A safety inspector will visit their workstation as soon as possible to evaluate the vehicle.
- Companies that fail their safety inspection will receive a yellow flag (or card). They must then address the issue(s) and display their yellow flag when they are ready to be re-inspected. Companies have 3 attempts to pass their safety inspections.
- Companies that pass the safety inspection will be given a green flag (or card). Companies must present the green flag to the product demonstration station judge in order to compete in the pool.
- Companies that do not pass their safety inspection after 3 attempts are NOT permitted to participate in the product demonstration portion of the competition.

*The process used at regional events may vary. Contact your regional coordinator for more information.

