

Things to Consider When Choosing a Controller for Mobile Equipment



What is the best control platform for your mobile machine? For some markets and machines, simple relay logic could be the best. It is easy to troubleshoot, and most people understand this technology. However, this limits your ability to control more complex machines.

For those mobile machines that require more complex functions, or features such as connecting to an electronic engine, perhaps a mobile rated controller (PLC) is the better choice. For more information on the benefits of mobile rated controllers, take a look at our article [Benefits of Control Systems in Mobile Machinery](#).

So, you have made the decision to utilize a mobile controller on your machine. Here are some things to consider in order to make a decision on what is the right controller for your machine.

- Do you want to utilize a centralized or decentralized controls design?
- Based on your design layout, what is your input and output total
- Inputs – what type are they, digital (high or low), analog (current or voltage), resistive (such as for fuel level), or frequency
- Outputs – what type are they, digital (high or low), analog (current or voltage), pwm, pwm with current control, or H-bridge
- Outputs – what is the current required to drive each output?
- What if any communication protocol is needed? If using CAN, how many CAN channels do you need – example: CAN line to connect to an electronic engine, CAN channel for connecting to a display and other control devices (joystick, etc)
- Where will the controller be mounted (inside a control box or exposed to the environment)?
- Are you doing the programming or better yet, do you want to have the capability to program?

Here at Cross Mobile Systems Integration, we can help you select the right controller for your application. In addition, our system integration experts can work with your team to develop a complete mobile control solution to insure that you have the right components, working together, to improve your machine performance and productivity. Take a look at our offering of [Controllers for Mobile Machines](#) and check out our [Complete Mobile Systems Integration Services](#).