

## **Automated Arduino controlled water pump**

Excess water accumulation on pool covers poses a risk of damage.

Conventional pumps that remove water from covers are expensive and require manual operation. To address this, I developed an automated system using an Arduino and float switch to detect water and activate a small pump. When triggered, the pump runs briefly to initiate a siphon that passively drains the cover. This provides an affordable, hassle-free way to protect pool covers from excess water.

The image to the right shows the whole system. Once the siphon is started it pumps water down a drain.



The image to the left shows the 18v Ryobi battery and the Arduino. Both are housed in a jug for protection from weather.



The image to the left shows the pump and float switch. The pump is connected to a hose. When the float switch is triggered, the pump runs for a set time to start a siphon.