

Instructions for building a dam using the LEGO WeDo 2.0 Robotics Kit:

1. Take out all the kit pieces and separate them by color and size for easy access.
2. Start by building a stable base using large slabs and beams. This will form the foundation of the dam.
3. Use various blocks to build the dam walls. Secure the blocks well so the dam is durable.
4. Place the blocks in layers, making the barrier thicker and stronger.
5. Assemble a simple mechanism using the motor from the WeDo 2.0 kit. This mechanism will act as a valve to control the flow of water.
6. Connect the motor to the blades or the shaft that will raise and lower the dam valve.
7. Connect the motor to the LEGO WeDo 2.0 hub and make sure everything is connected correctly.
8. Open the LEGO Education WeDo 2.0 app on your computer or tablet and connect the hub via Bluetooth.
9. Create a program in the application that will allow control of the motor and valve. You can use command blocks to specify when to raise and lower the valve.
10. Test your dam to see if it is working properly. Adjust the program or build if needed.
11. Add water to see how the valve controls the water flow.

Tips:

- Make sure the dam is stable and has no gaps that will allow water to leak.
- You can add sensors from the WeDo 2.0 kit to automate valve operation based on water level.