Otto Neidert

Christopher Phillips

Jennifer Bateau

Dr. Brendan Morris

Arduino Group Project Proposal

The basic proposal is to make a bridge that can be raised or lowered. The bridge will be on a miniature scale of course. The bridge might be designed in the form of the London Bridge or it’s a possibility that the bridge will have behave like a lever.

The London Bridge style will have a motor on one side controlled by the Arduino and would ‘winch’, some sort of gear, pulley, string system connected to the span section up to a certain level. The lever setup would have a sort of hinge on the side with the motor and a pole that can guide a string that’s attached to the motor and to the far end of the bridge and it would be hoisted up to allow clearance. Dan Siegler, the man who lent out the Arduino kit thinks the motor that is in our Elenco kits might be suitable-in that it will be able to hold position and not roll back once the motor has been shut off.

The working idea is to have two switches on each side of the span and if the bridge is down and needs to go up-either switch can toggle it to go up, where it would stay. Then if the bridge needs to be back in the down, either switch can do that. If it’s possible we might try and put a sensor facing one direction to detect that an object is coming and that the bridge needs to go up, until the sensor is clear-to which the bridge comes back down on its own-maybe.

We all liked the idea, but it might not be totally feasible. We will seek Dr. Morris’s insight on it and see if the project is adequate. It would be a nice combination of electrical, mechanical, and civil engineering.