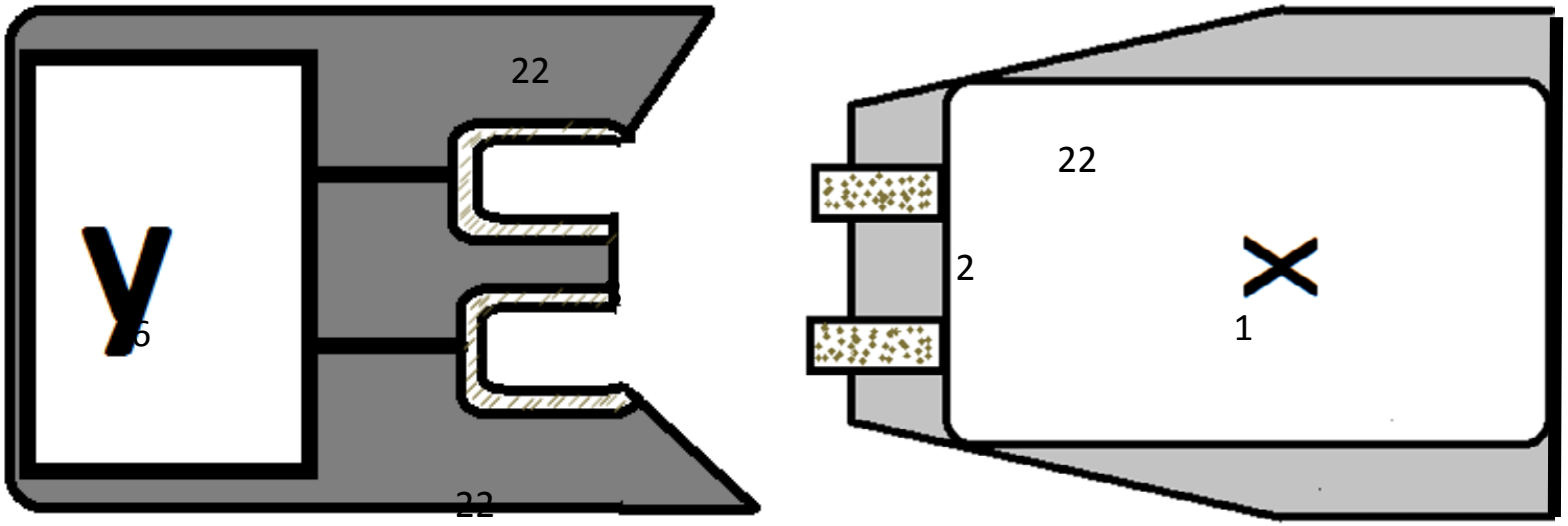
UNDERWATER CIRCUIT CONNECTOR (Final Prototypes)

UNDERWATER CONNECTOR TEAM

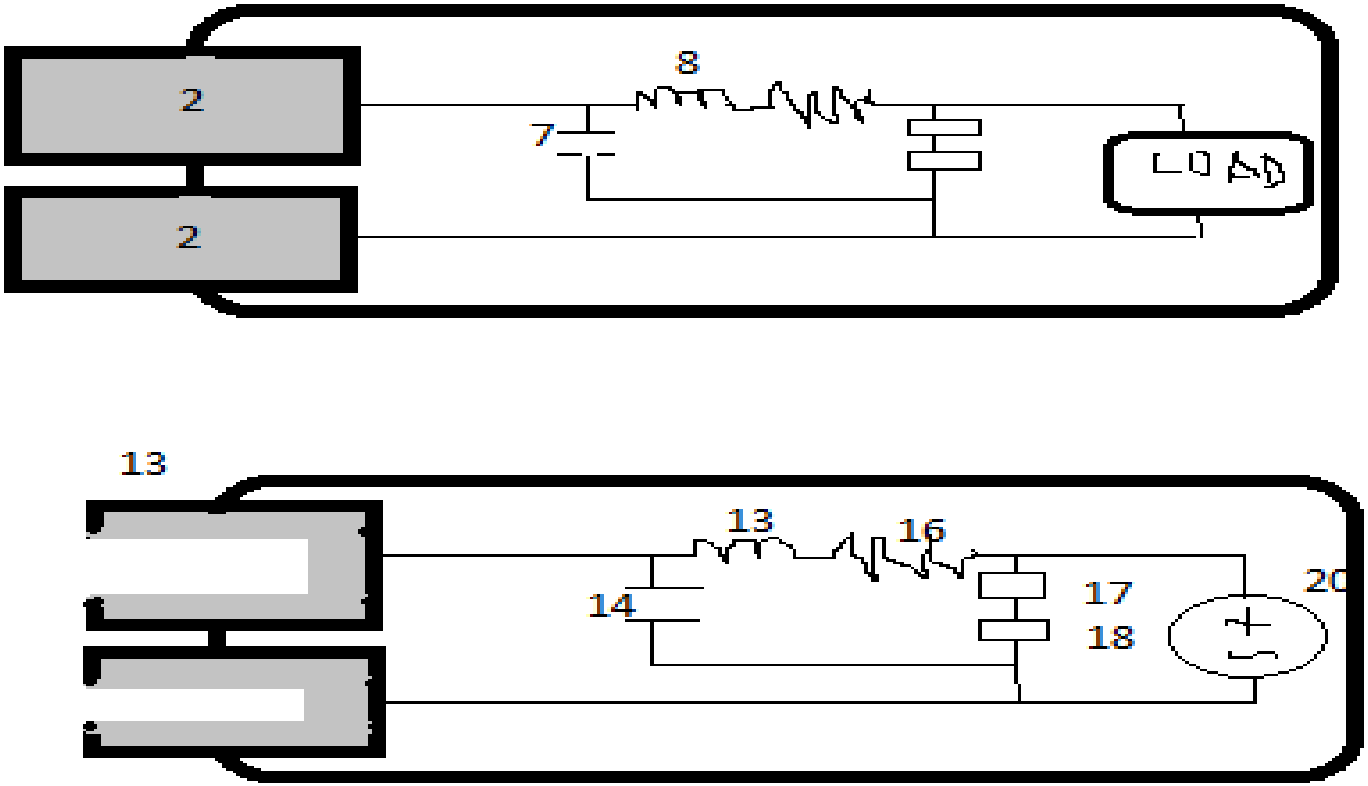
1867
HOWARD
UNIVERSITY

The pictures below show a perspectives of what our final design might look.

UNDERWATER CIRCUIT CONNECTOR (Final Prototypes)



Specifics of Xblock and Yblock



Conceptual design

The figure above is a description of a conceptualize dry-mate, wet mate unmanned underwater vehicle.

21] represents the piece connected to the UUV, 22] represents the piece connected to the charging station. 2] will be the pin of niobium connected to the charging station.

Note: Niobium is used because of its capacity to operate a superconductor and also of its ability to pass current only after contact will another niobium material is established.

1] Xblock represents the electrical circuit system that receives current from the charging station. Xblock contains 22] sensor that would enable connection with 6] Yblock

6] Yblock represents the electrical circuit system that dispatches current into the UUV.

1] is composed of load 12] that most likely will be a battery of 25A, which is an inductance, 7]which is a capacitor

9] and 10] will be respectively power converted and RF

6] is composed of a generating source of 48 dc V, a capacitor 14], an inductor 15] and a resistance 16]. 17],18] correspond respectively to power converter and RF radio

The Receivers/Transmitters will send a small signal to confirm connection and begin exchanging power and data across the Niobium wires.