



# HACKtheMACHINE SEATTLE

## Educational Challenge: System Document

21-23 SEPTEMBER 2018

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# RECOMMENDED MATERIALS

## HARDWARE

### Recommended Hardware

It is recommended you bring the following hardware with you:

- Laptop computer
- Cat5 Ethernet Cable (3 meters or greater)
- Software Defined Radio + Antennae
- USB thumb drive (4GB capacity or greater)

## SOFTWARE

The following is a list of recommended software. Be aware of different versions of the software that have different functionality.

- Wireshark
- Cain & Able
- NMAP
- CAN bus analyzer (NMEA Reader)
- Metasploit
- Kali Linux

# TECHNICAL SPECIFICATIONS

## HARDWARE AND INTERFACING

Hardware	Network	Connection Type
Garmin GPSMAP 7616XSV 16" Multi-touch Chartplotter/Sonar	Voyage, IT,	Ethernet/NMEA2000/Wi-Fi
Garmin Wireless Remote Control	Voyage	Wireless
Garmin AIS 600 Transponder	Voyage	NMEA2000
Garmin GA 38 GPS/GLONASS AIS Antenna	Voyage	NMEA2000
Shakespeare Galaxy 5400XT VHF Antenna 4'	Voyage	Coaxial
Garmin GPS 19x 10 Hz GPS External Receiver	Voyage	NMEA2000
Garmin 9-Axis Heading Sensor Compass	Voyage	NMEA2000
Garmin GXM53 SiriusXM Marine Receiver	Voyage	Ethernet
Garmin GHP Reactor Course Computer Unit (CCU)	Voyage	NMEA2000
Garmin GMR Fantom 18 18" Dome Radar with MotionScope Technology	Voyage	Ethernet
Garmin gWind Wind Sensor (Wireless)	Voyage	NMEA2000
Garmin GND 10 Black Box Bridge	Voyage	NMEA2000
Garmin CCU Buzzer (Audible)	Engineering	Power
Garmin GHC 20 Helm Control Display	Engineering	NMEA2000
Garmin ECU Electronic Control Unit	Engineering	NMEA2000
Garmin GRF-10 Rudder Feedback Sensor	Engineering	NMEA2000
Garmin GMI 20 Marine Instrument Display	Engineering	NMEA2000
Airmar DST800 Depth, Speed, Temperature Transducer	Engineering	NMEA2000
Furuno FI5002 NMEA2000 Junction Box	Engineering	NMEA2000
Trossen Robotics Linear Actuator 10 in. Stroke 110lb Linear Actuator with Feedback	Engineering	NMEA2000
Trossen Robotics Mounting Bracket Linear Actuator Mounting Bracket	Engineering	n/a
Garmin Actuator Power Cable	Engineering	12V DC
Bose 151SE Environmental Speakers	Engineering	Audio
Yamaha RS202BL Stereo Receiver and Amp	Engineering	Audio
Actisense EMU-1 Engine/Vessel Monitor	Engineering	NMEA2000/Analog/USB

<b>CH Products Pro Throttle USB Flight Simulator Throttle</b>	Engineering	USB
<b>LG 40" Class TV</b>	Voyage, Engineering	HDMI
<b>Garmin GMS 10 Ethernet Network Switch</b>	IT	Ethernet
<b>Cradlepoint CORIBR1100 Wireless Mobile Broadband Modem</b>	IT	Wi-Fi/Ethernet
<b>Intel NUC7i3BNHX1 Box PC</b>	IT	Wi-Fi/Ethernet/USB