

## Senior Design Project Description for SPRING 2016

### Project Title: Water Channel Crane (UNCC\_CRANE)

Supporter: UNC Charlotte Motorsports

Supporter Technical Representative: ASSIGNED

Faculty Mentor:  ASSIGNED  TBD (check one)

Single Team  Dual Team  (check one)

Personnel (EN/ET):  E,  Cp,  Cv,  2 M,  SE

(Complete if the number of students required is known)

Expected person-hours: (250 per student)

#### Description of Project:

The UNCC Water Channel in the Motorsports Research Building currently has no easy method of installing research experiments into the water channel. This project will design and fabricate a gantry crane to install and remove research experiments. The team will collaborate with various grad students, the crane must meet all government safety regulations and support about 300#.

#### Initial Project Requirements (e.g. weight, size, etc.):

A gantry style crane is required. The team will collaborate with various grad students. The crane must meet all government safety regulations and support about 300#.

#### Expected Deliverables/Results:

A completed and tested gantry crane is required. Calculations showing the design are to be included.

#### List here any specific skills or knowledge needed or suggested (If none please state none):

None