

ECE Capstone program
Spring 2017
Summary Project info

Please provide the following information to be shared with on capstone information exchange platform:

1. Project number:

S18-55

2. Project title (as will appear on the poster):

Wearable Solution For Motorcycle Navigation

3. Team members:

Xiang Li(POC)

Pawel Derkacz

Xun Tang

4. Adviser(s) name(s):

Roy Yates

5. Up to 10 keywords that will help to classify the project:

Navigation, Wearable, Gloves, Vibration, Android, Arduino, Bluetooth.

6. Project abstract (up to 200 words) to be shared with judges:

Nowadays navigation system, for example, google map, is becoming a necessary tool of daily transportation for everybody. However, unlike driving a car, for riders who ride motorcycles at high speed, looking at their phones for navigation is too risky and dangerous. Therefore we came up with the idea that designing a wearable device which can process the data from user's phone and transform the information to a easier and safer way to tell the rider the right direction.

Our plan is to design a vibration device which can fit inside normal riders' gloves. The device can connect to user's phone by Bluetooth and can collect the data directly from google map. Then it can process the data and function in the corresponding way. For example, if the rider should turn right in the next intersection, the right-hand glove would vibrate. If the rider should make a U turn, both gloves would vibrate simultaneously. In this way, the rider can focus on the traffic and get on the right direction at the same time.