

Armed Bike Lock

Project

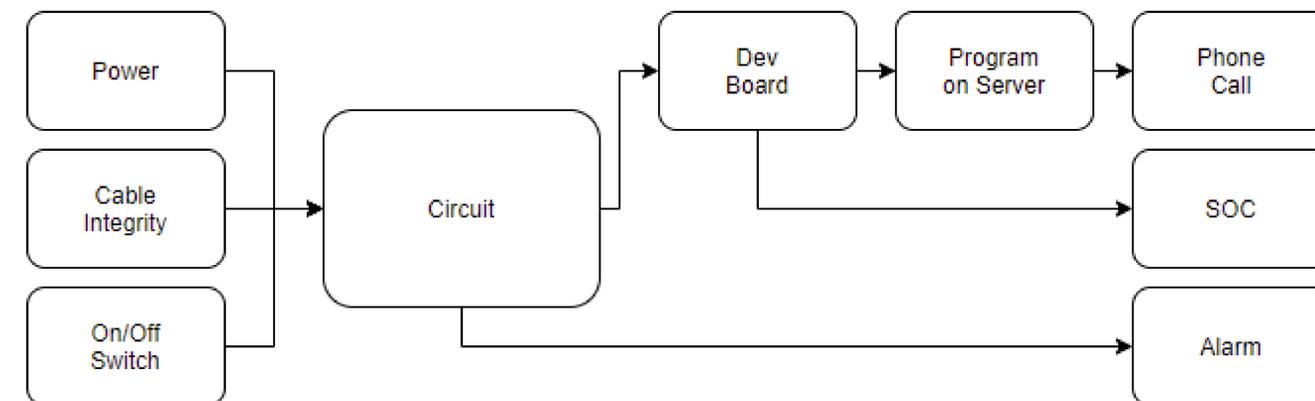
Bikes are too easy to steal, especially out of the back of pickup trucks

Goals:

- Create a notification system to alert you even if you are away the bike
- Stop the theft
- Save your bike and money



System



Methods

- Created a system where cable is secured twice, forcing the thief to make another cut while the alarm is sounding
- Created an analog circuit to trigger anti-theft devices if the cable is severed
- Anti-theft devices:
 - Cell phone Call
 - Alarm
- Created an IoT device to trigger cell phone call
- A dependency on Wi-fi connectivity is acceptable as:
 - Many trucks have Wi-Fi already
 - Freedom pop offers free limited data plans to create a Wi-Fi hotspot

Conclusion

- Project has been evaluated as successful because
 - Phone call is generated to designated phone number through HTTP POST message
 - Alarm is sounded and Dual-Lock system scares thief away before bike loss
- Learned a lot about IoT devices and HTTP & MTTP protocols
- Further development goals:
 - Create an app to streamline interactions with the development boards
 - Generate phone call on device itself, or a phone left in cab instead of relying on online servers.