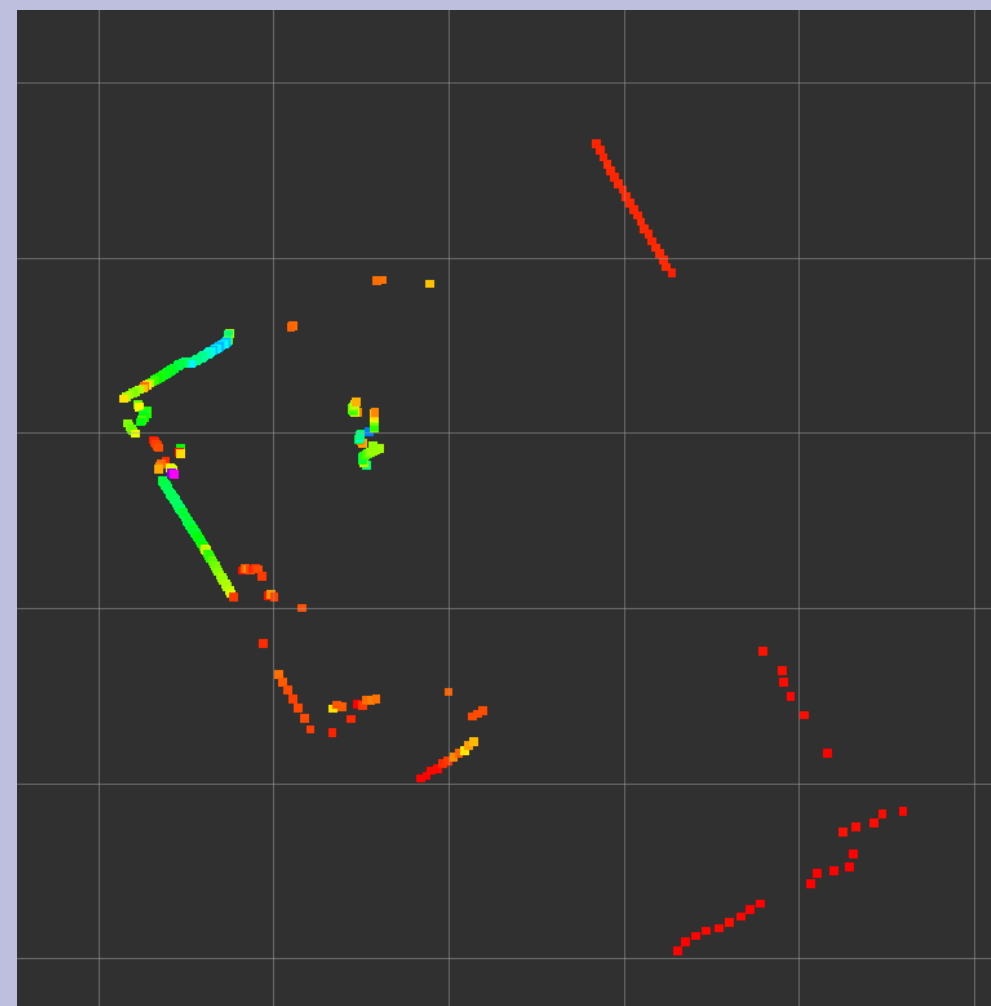


What Does the Future of Safe, Secure and Reliable Autonomous Driving Look Like?

A 1/10th-the-Size Autonomous Research Vehicle

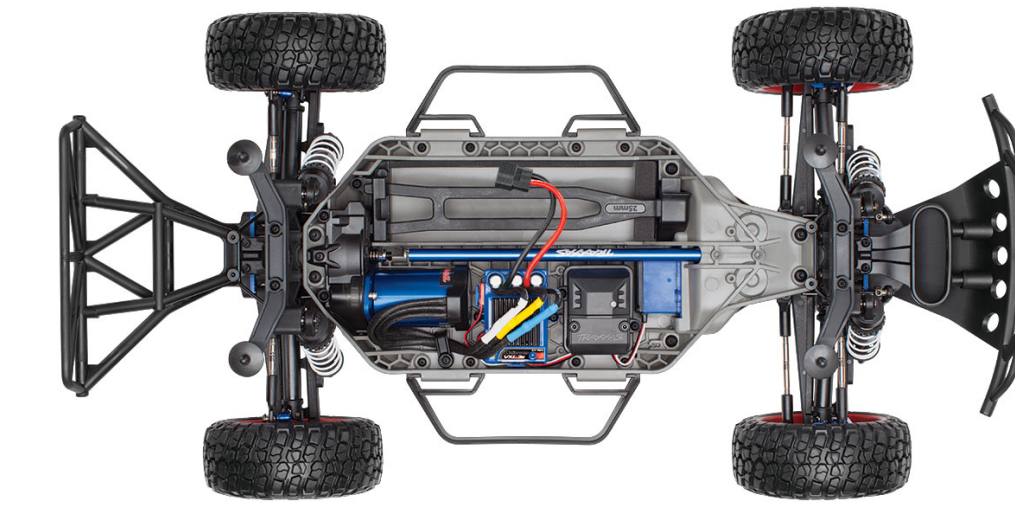
Edinburgh Science Festival Demo

A Live lidar scans

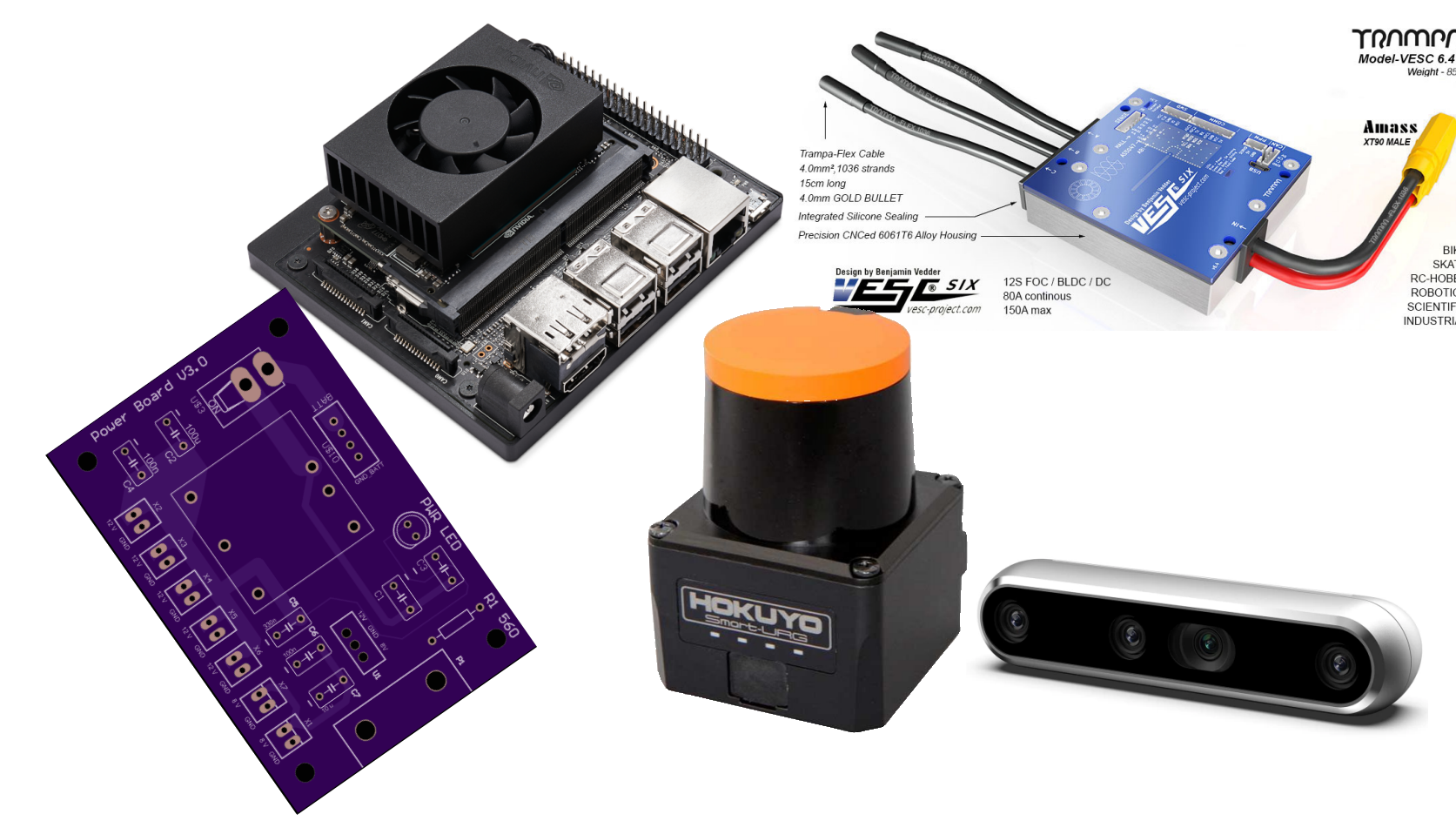


B Program it yourself!

- i choose your path
- ii create an algorithm
- iii watch it run!



1 Start from a super fast racing car and strip off all the non essentials!



2 Add the state of the art computing and sensor devices!

Are autonomous cars safe? ...really?

Are robots going to take over the world?

How can machine learning help improve society?

Chassis Design

Traxxas 1/10 scale RC race car

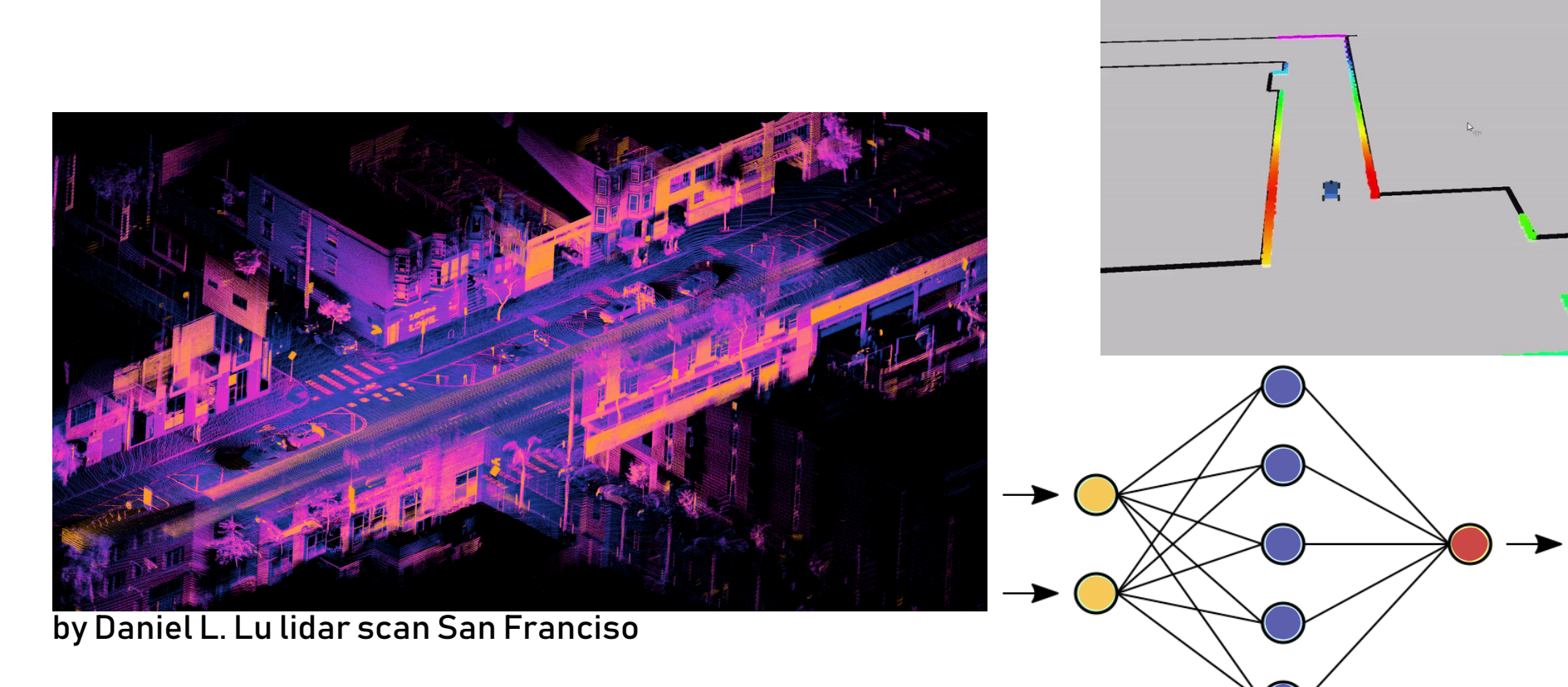
by University of Virginia Ftentech course

Sensing and Control Units

- power board
- computing
- motor control
- LiDar
- camera

Software Layer

What does the future of safe, secure and explainable self-driving look like?



3 Implement all the machine learning, AI or fancy driving algorithms you want, and take it away!

Our research applications

- Generating LIDAR Data in Adverse Weather using GANs
- Formally verified Car Controllers

from keymaerax.org
- Optimal Autonomous Racing Strategy for One-on-One Racing

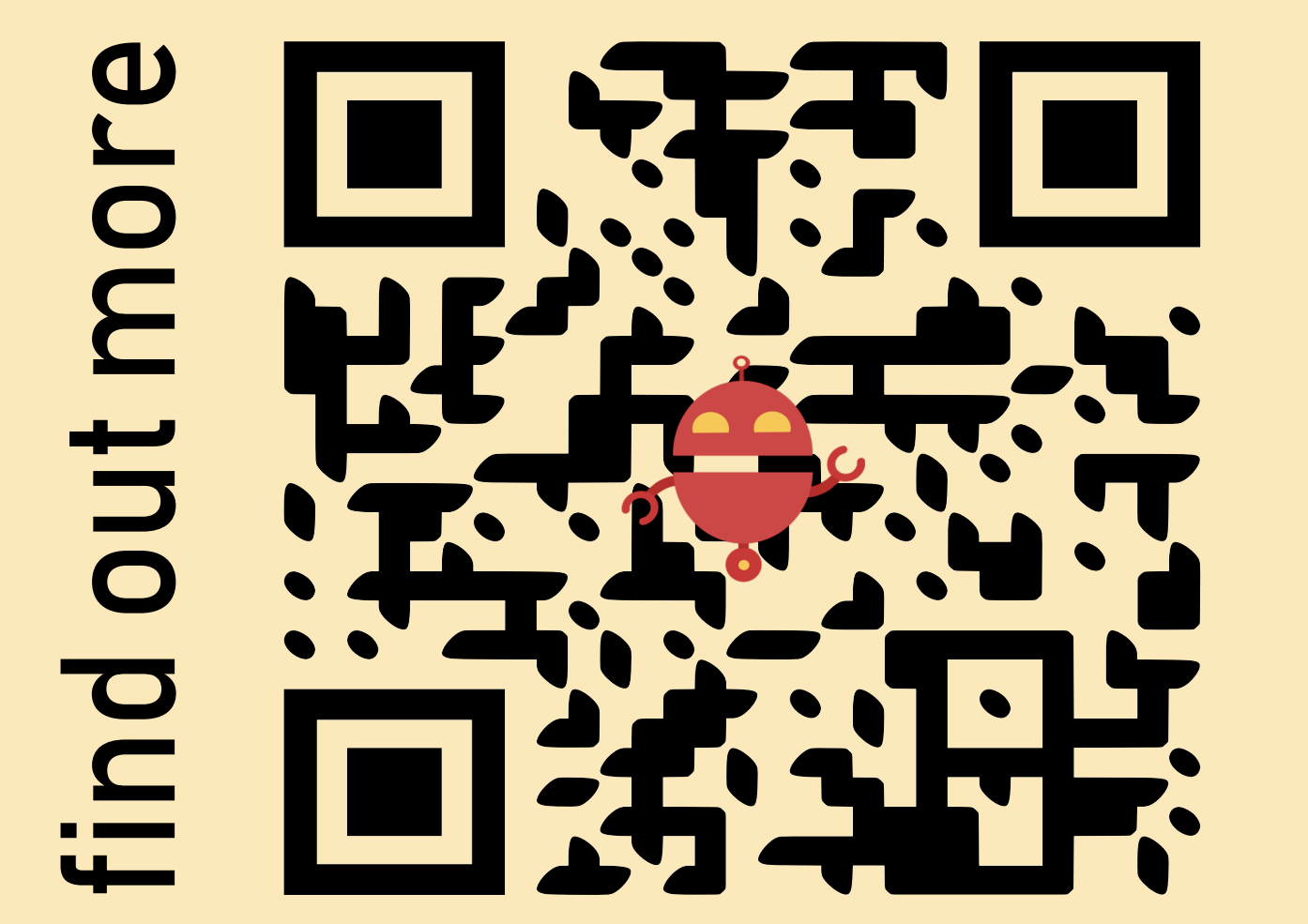
photo by Aly Song
- Explainable Self Driving Algorithms

from caltech.edu
- Is Reinforcement Learning a Better Driver than a Human?

from scienceabc.com
- Can Event-Based Cameras Improve Reliability of Self-Driving Cars?

image from arXiv:1811.00386

Ask Us Anything



Partners

Credits for car build instructions to: fltenth.org F1 TENTH