

Final Project Submission

Eric Schneider

Summary of project

Over the course of this semester I've been studying technical Chinese, looking at words that I could use to describe a series of engineering projects. For the Complete Project Submission I've made a number of rough videos and placed them on Youtube, where in each video I try to explain a certain facet of an engineering project in Chinese. The early videos are rough because I made them mostly independently, without a lot of editing from my Chinese professor, and for the Final Project Submission I've revised one of the videos with her advice to make a more polished version.

Project results

Describing the Robotic Sailboat at Olin

Electrical: <https://www.youtube.com/watch?v=5vDAIgTM2bY>

Software: <https://www.youtube.com/watch?v=uBeKFHxaMyc>

Hull: <https://www.youtube.com/watch?v=zikESsY1OEc>

Deck: https://www.youtube.com/watch?v=GhcBgMf_FGI

Sails: <https://www.youtube.com/watch?v=Eij6Kz424m4>

Describing the iRobot Packbot

Basic Attributes: <https://www.youtube.com/watch?v=YiRaAM2DSt0>

Software: <https://www.youtube.com/watch?v=Uhyb230I4ns>

Applications: https://www.youtube.com/watch?v=_rOJbesqlLM

Iteration on past video for the Final Project Submission

This was chosen because it contained some challenging content that I wanted to take a second shot at with mentor feedback

Sails: <http://youtu.be/B7dZxbqWLLE>

Contextual work

My most commonly used resource for finding new words to memorize is the dictionary. The Chinese dictionary I use allows me to do more than just look up a word, it also allows me to break a word up into its separate characters and see what each part of the word means – this aids in the memorization process.

My primary resource for feedback has been Professor Chen at Wellesley, we've met several times through the semester to go over what I've been learning recently and give me

feedback on the videos I've been making throughout the year. I've also gotten feedback from Jason Zhu on how I was using the vocabulary I was learning. In addition to helping with specific word usage, these two people have helped point out several longstanding problems that I would consistently repeat, namely overusing 那个 as a filler word, using 所以 as a transition in a way that diminishes its meaning, and forgetting to use placement words like 上 and 下 with 在.

Words studied for Sailbot

Electrical components

Dian\ zu/ qi\	电阻器 - <i>obstruct</i> -	Resistor
Dian\ rong/ qi\	电容器 - <i>easy</i> -	Capacitor
Chuan/ gan, v qi\	传感器	Sensor
Dian\ dong\ ji-	电动机	Electric motor
Si\ fu/ dian\ ji-	伺服电机	Servomotor
Ci/ tie, v	磁铁	Magnet
Jiao, v che-	绞车	Winch
Dian\ chi/	电池	Battery
Wei/ chu, v li, v qi\	微处理器	Microprocessor
Dian\ lu\ ban, v	电路板	Circuit board
Yin\ shua-	印刷电路板	PCB
Dian\ qi\ zu, v Zhuang-	电器组装	Electrical package
Xin- pian\	芯片	Chip
GPS	全球定位系统	GPS
Feng- su\ biao, v	风速表	Wind sensor/anemometer
Tui- la- li\ ji\	推拉力计	Force sensor/gauge
Zhi, v nan/ zhen-	指南针 <i>point south needle</i>	Compass
Wen, v ya- qi\	稳压器	Voltage regulator
Tong- duan\ kai- guan-	(通/断)开关	(Switch on/off) Switch
Dian\ ji- kong\ zhi\ qi\	电机控制器	Motor controller
Dian\ xian\	电线	Wire
Cha- tou/	插头	A plug (n)
Wu/ xian\	无线 <i>no wires</i>	Wireless
Bu\ jian\	部件 <i>section (measure word)</i>	Component
Wang, v luo\	网络	Network
Shi\ jie\	世界 <i>life boundary</i>	World

Useful software/electrical verbs

Cha- ru\	插入	To plug in
Zhi, v hui-	指挥 (伺服)	Command (motor)
Shou- zhi/ xin\ xi-	收集信息	Collect data
Ce\ liang/	测量	Measure
Gan, v zhi-	感知 <i>feel know</i>	Perceive

Jian,v yan\	检验	To test
Si- kao,v	思考 <i>think investigate</i>	Think/ponder
Pai/ xu\	排序	Sort
You- hua\	优化	Optimize
Yu,v _____ tong- xun\	与____通讯	With _____ communicate

Materials

Sheng/ zi, chuan\	绳子, 串	String
Bu\ pi,v	布匹 <i>cloth (mw)</i>	Cloth
Tan\ xian- wei/	碳纤维	Carbon Fiber
Bo- li. Xian- wei/	玻璃纤维	Fiberglass
Mu\ tou	木头	Wood
Lü,v	铝	Aluminum
Huang/ tong/	黄铜	Brass
Gang-	钢	Steel
Bu\ xiu\ gang-	不锈钢	Stainless steel
Xiu\	锈	Rust
(Pen-) qi-	(喷)漆	(Spray) paint
Hua\	画	To paint
Huan/ yang,v shu\ zhi-	环氧树脂 <i>hoop oxygen resin</i>	Epoxy
Zao\ xing/ pao\ mo\	造型泡沫	Modeling foam
Su\ liao\	塑料	Plastic
Jin- shu,v	金属	Metal

Tools

San-D da,v yin\	3-D 打印	3-D printing
Lu\ you/ qi\	路由器	Internet router
Shu\ kong\ lu\ you/ qi\	数控路由器	CNC router
Ji- guang- qie- ge- ji-	激光切割机 <i>stimulate light cut mow machine</i>	Laser cutter
Hua\ bi,v	画笔	Paintbrush
Ru,v jiao- shou,v tao\	乳胶手套	Latex gloves
Lao\ tie,v	烙铁 <i>roast weapon</i>	Soldering iron
Han\ jie-	焊接	To solder AND solder
Luo/ si- dao-	螺丝刀	Screwdriver
Luo/ si-	螺丝 <i>spiral silk</i>	Screws
Luo/ shuan-	螺栓 <i>plug</i>	Bolt
Diao\ huan/ luo/ shuan-	吊环螺栓 <i>ring – bolt</i>	Eyebolt
Zuan,v kong,v ji-	钻孔机	A drill
Zuan-	钻	To drill
Zuan\ tou/	钻头	Drill bits
Kong,v	孔	Hole
Ju\	锯	Saw

Ju\	锯	To saw
Sha- guang- ji-	砂光机 <i>sand - -</i>	Belt sander
Ban- shou,v	扳手	Wrench
Qian/ zi.	钳子 <i>pliers/tongs -</i>	Pliers
Chui/ zi.	锤子	Hammer

Boat parts/mechanical components

Fan- chuan/	帆船 <i>light float in air</i>	Sailboat
Duo\	舵	Rudder
Long/ gu,v	龙骨 <i>dragon bones</i>	Keel
Chuan/ ke/	船壳 <i>boat skin</i>	Hull
Wei/	桅	Mast
Diao\ gan-	吊杆	Boom
Fan-	帆	Sails
Jia,v ban,v	甲板 <i>shell board</i>	Deck
Zhi- suo,v	支索	Stays
Wei/ qian- suo,v	桅牵索	Shrouds
Fan- jiao,v suo,v	帆脚索	Sheets
Chuan/ ti,v	船体	Body of boat
An- Zhuang-	安装 <i>peaceful attire</i>	(sensor) Mount
Chuan- dong\	传动 <i>pass on movement</i>	Transmission
Chuan/ tou/	船头 <i>boat tail</i>	Prow
Chuan/ wei,v	船艏	Stern
Cang- kou,v	舱口	Hatch
Gang\ gan,v	杠杆	Lever
Yuan/ xing/	原型	Prototype
Gou\ zao\	构造	Structure

Useful mechanical verbs

Jia\ shi,v	驾驶 <i>drive sail/speed</i>	To pilot/to navigate
Da,v po\	打破 <i>strike damaged</i>	To break
Zhi- cheng-	支撑 <i>prop up^2</i>	Support
Lian/ Jie- (dao\)	连接 (到)	Connect (to)
Qing- xie/	倾斜	Tilt
Wan- qu-	弯曲	Bend
Hun\ he/	混合	Mix
Da,v jie/	打结	To tie
Ning/ jin,v	拧紧	Tighten (bolt)
Ning/ song-	拧松	Loosen (bolt)
Qie\	切	To cut
Tuo-	拖	Drag/tow
Chi/ you,v	持有	Hold

Adjectives

Eric Schneider
Final Project Submission

Ji- xie\	机械 <i>machine instrument</i>	Mechanical
Ji\ shu\	技术	Technical
Zhong\	重	Heavy
Qing-	轻	Light
Zha- Shi.	强壮	Strong (sturdy)
You,v li\	有力	Strong (vigorous)
Dan- bo/	单薄	Weak
Qing- piao-	轻飘	Buoyant
Kuai\	快	Fast
Man\	慢	Slow
Bu ping/ heng/	不平衡	Off-balance
Wei- xian,v	危险	Dangerous
Nan/	难	Difficult
Jian- gu\	坚固	Stiff/hard
Ling/ huo/	灵活	Flexible
Ruan,v	软	Soft
Ying\	硬	Hard
Dao,v dian\	导电	Conductive
Bu\ dao,v dian\	不导电	Non-conductive
Ping/ wen,v	平稳	Smooth
Cu-	粗	Rough
Xing/ Zhuang\	形状 <i>shape shape</i>	Shape
Fu\ za/	复杂 <i>compound mixed</i>	Complex
Fang/ shui,v	防水 <i>prevent water</i>	Waterproof/watertight
Gan\	干	Dry
Zhai,v	窄	Narrow
Hou\	厚	Thick
Rui\	锐	Sharp

Physics/math words

Li\	力	Force
Mi/ sa-	弥撒	Mass
Zhuan,v ju,v	转矩	Torque
Fan,v niu,v ju	反扭矩	Counter torque
Zhou/	轴	Axis
Su\ du\	速度	Speed
Fang- xiang\	方向	Direction
Wei\ zhi\	位置	Position
Jia- su\ du\	加速度 <i>add speed degree</i>	Acceleration
Dian\ liu/	电流	Current
Dian\ ya-	电压	Voltage
Pin/ lü\	频率 <i>repeat rate</i>	Frequency
Jiao,v du\	角度	Degrees

Eric Schneider
Final Project Submission

Bian\ hua\ lü\	变化率	Rate of change
Mo/ ca-	摩擦 <i>rub/scrape apply/spread</i>	Friction
Fu/ te\	伏特	Volt
Zhong\ lì\	重力 <i>heavy force</i>	Gravity
Zhen\ dong\	振动 <i>shake move</i>	Vibrate
Zhang- lì\	张力 <i>open/stretch force</i>	Tension
Re\ lì\	热力 <i>hot force</i>	Heat
Gong- lǜ\	功率 <i>work rate</i>	Power
Ying- cun\	英寸	Inch
Gong- chi,v	公尺	Meter
Bang\	磅	Pound
Gong- jin-	公斤	Kilogram
Fen- zhong	分钟	Minute
Miao,v	秒	Second
Cheng/	乘	Multiply
Ping/ jun-	平均	Average

Other useful words

Tuan/ dui\	团队	Team
Dui\ yuan/	队员	Team member
Guo\ cheng/	过程	Process
Ling,v dao,v zhe,v	领导着	Leader
Li,v mian\	里面	Inside
Wai\ mian.	外面	Outside
Biao,v mian\	表面	Outer face
She\ jì\	设计	Design
Neng/ lì\	能力	Ability
Zhuan- jia-	专家 <i>focus specialist</i>	Expert
Qì\ zhì/	气质 <i>air character</i>	Qualities
You- dian,v	优点 <i>excellent drop</i>	Advantage
Ren\ wu\	任务 <i>appoint affair</i>	Task
Zhì/ jué/	直觉	Intuition