

# PIXIE – 40 M CW Transceiver Project

Feb/Mar 2017 Build Night  
Newport County Radio Club

# Project Goals

- Build something simple but useful for Amateur Radio licensees in all classes
- Low cost (\$10) for greater participation
- One night build with test and troubleshooting help available
- Less than perfect design to allow investigating solutions in future meetings and events.
- Have lots of FUN!!
- POTA contest? - Pixie On The Air



# Project Schedule

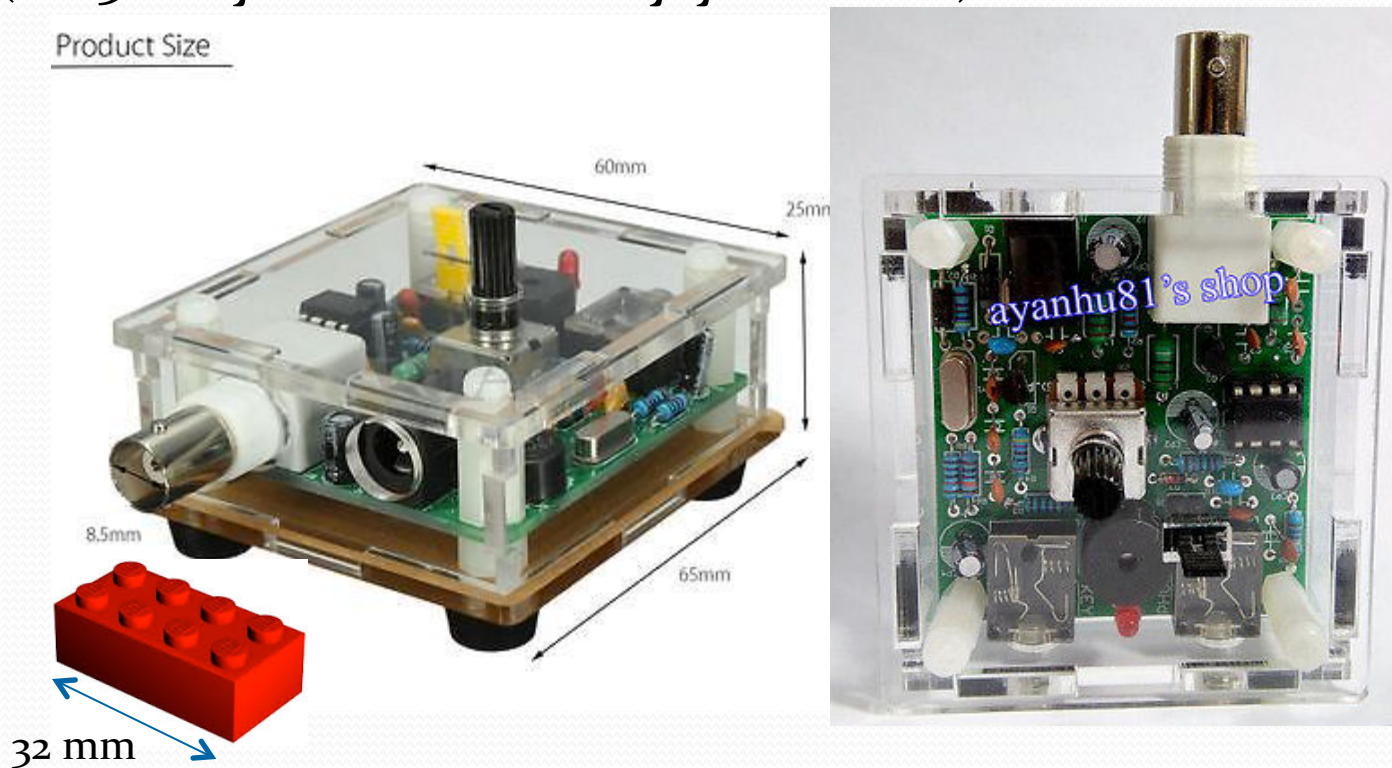
- Dec 2016. Investigate alternatives. Done.
- Jan 2017. Establish interest in the project. Take orders
- Feb 2017. Procure kits and set up test stations.
- March 2017 meeting .. Build night at KVH with club provided tools or bring your own
- Futures
  - 40 m CW net
  - Arduino projects - keyer and decoder
  - Circuit descriptions and improvements



# PIXIE - a 40M CW transceiver

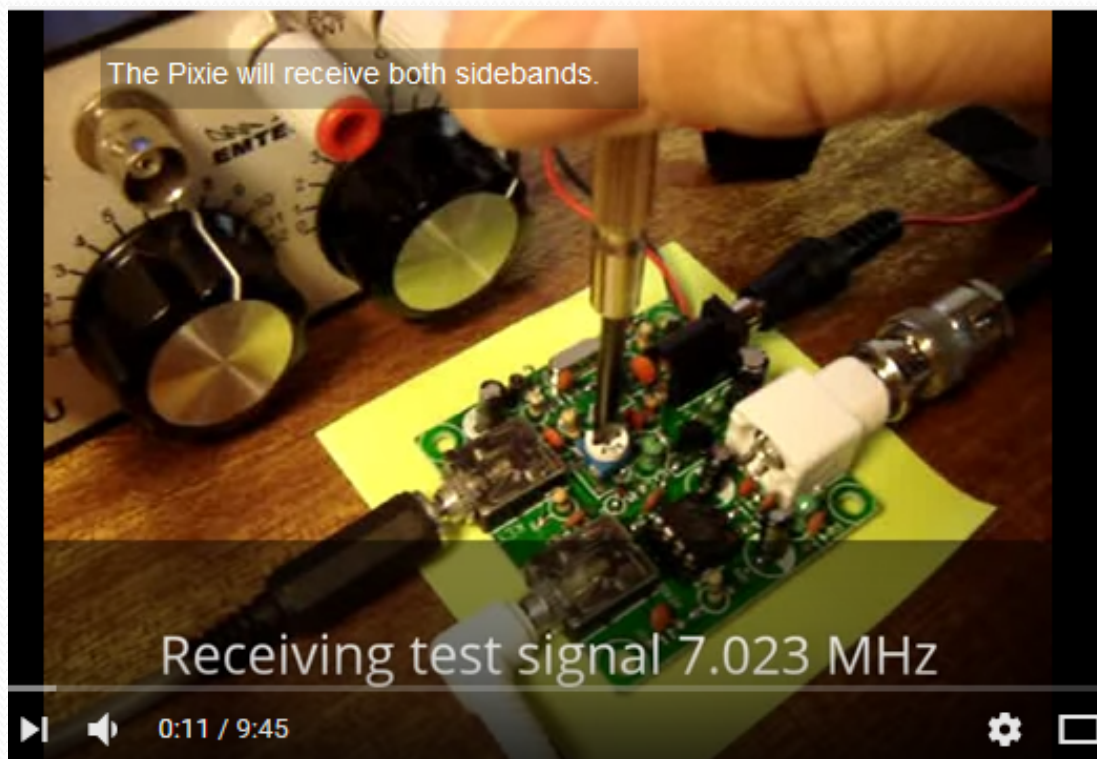
- The Pixie is a small, direct conversion CW QRPp transceiver using just a handful of common parts for \$10 (\$8.50 if you want to buy your own).

Product Size



# Watch this for 1 min

<https://www.youtube.com/watch?v=IZDeMXy4WGc>



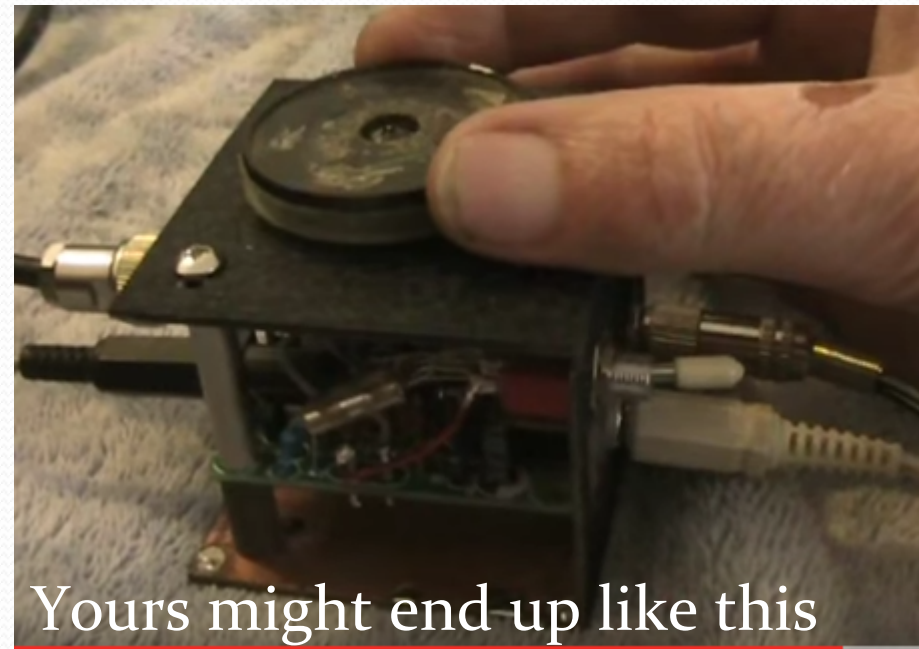
Or this: <https://www.youtube.com/watch?v=r0Ac4c1a-ao>





# Learn or practice assembly and soldering techniques

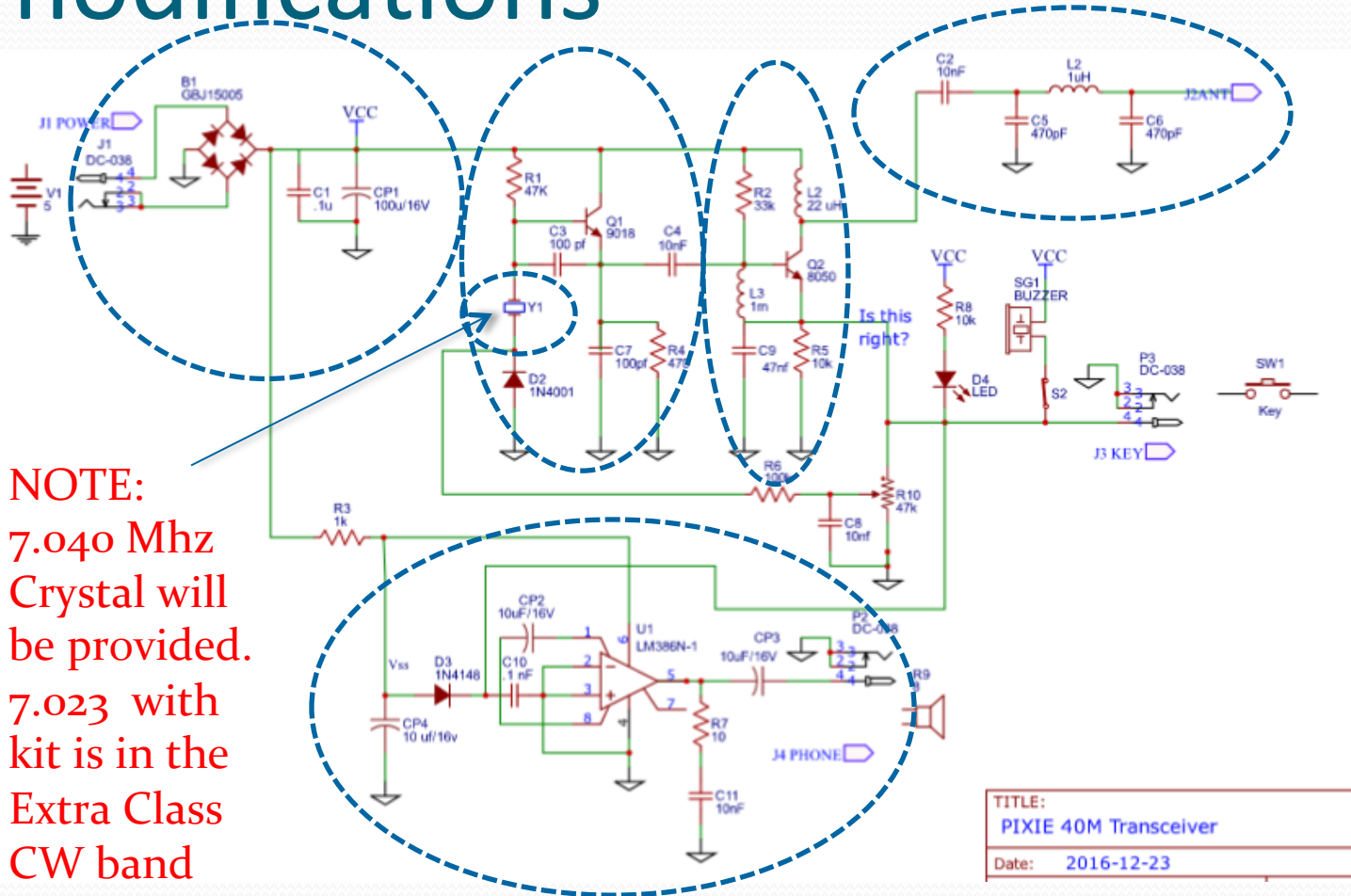
- The base kit shown below (\$10)
- 7.040 crystal will be provided because 7.032 is in the Extra class band
- Spare parts will be available free



Yours might end up like this



# Plenty of opportunities for modifications



**NOTE:**  
 7.040 Mhz  
 Crystal will  
 be provided.  
 7.023 with  
 kit is in the  
 Extra Class  
 CW band

TITLE:  
 PIXIE 40M Transceiver  
 Date: 2016-12-23



# QSO with Pixie QRP Transceiver

- **Published on Feb 13, 2016**
- 350 mile (560 km) QRP contact with Carl, WBoCFF at noon local time using 600 mW on 7.023 MHz.
- 73 Lynn NG9D





# Futures

- 40 m CW net 7.040
  - Club broadcast / CW practice / QRP contests
- Arduino/RaspberryPi projects
  - ID / Fox keyer (Jan 2017 QST) / CW decoder
- Measurement experience
  - Power /Frequency /Equipment
- Circuit descriptions and improvements
  - Impedance / Distortion / Matching/ Filtering
- Antenna design
  - Small and/or portable for field use.
- Suggestions are welcome



# NCRC 2017 meeting plan

- Jan 2017 WFD plan, Pixie Project presentation. P Fredette
- Feb 2017 Solder principles and practice (Non Members?/Mentors)
- March 2017 Pixie Build and Test night (KVH) - Mentors needed
- April 2017 Open (Arduino intro and keyer + Pixie testing)
- May 2017 Pixie CW exercise (Net simulation) Willy/John ?
- June 2017 Field Day coordination (Satellite tracker group status)
- July 2017 Open (Field Day roundup/Antennas Fundamentals)
- Aug 2017 Open (Fox exercise/ ARISS)
- Sept 2017 Pete Lawson's Northern Canada Coast Adventure
- Oct 2017 Open (Pixie improvements and experiences)
- Nov 2017 Open (Election – Drone demo)
- Dec 2017 Christmas Party

