

TJ PRO CABLE FABRICATION

by
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Version 01

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- Low cost,
- Wide availability,
- Open architecture,
- An open, enthusiastic, dynamic community of users sharing information.

Our corporate goal is to help create this new, exciting industry!

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1. DIRECTIONS

Before soldering connectors, strip about ¼ inch of insulation of the ends and tin as shown below. The remaining figures illustrate the three-step process of fabricating the sixteen cables for the TJ PROTM robot.

1. Strip and tine leads,
2. Solder the connectors,
3. Cover soldered connections with hot glue to give mechanical strength and stability.

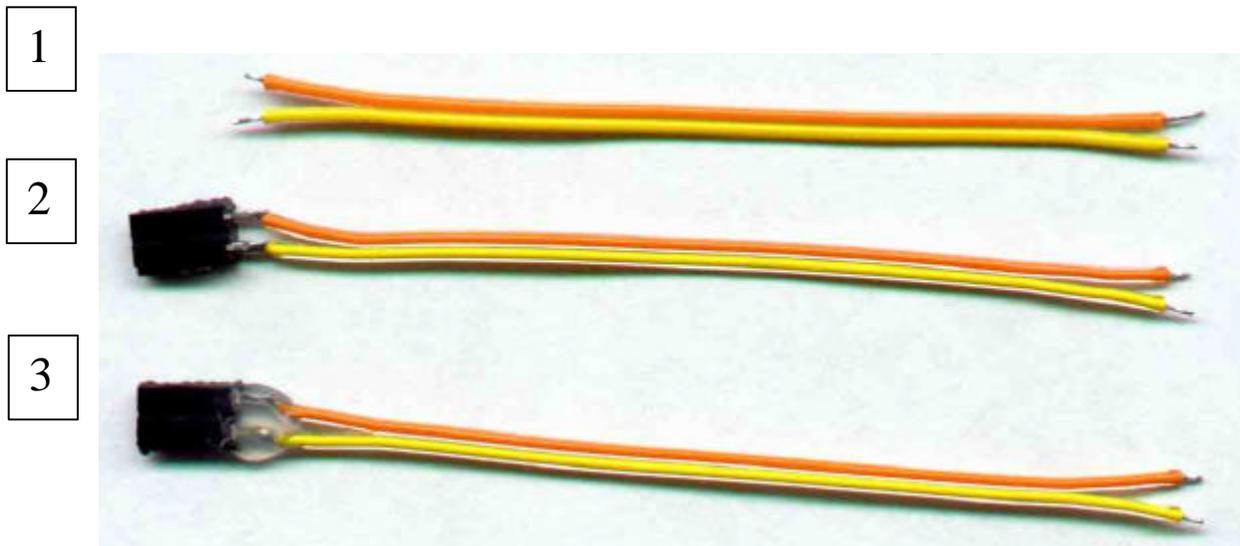
For step three, use a clamping device covered with a surface that hot glue does not adhere to. For example, a variable crescent wrench whose jaws are covered with tape. Clamping will insure even distribution of the glue and produce a relative smooth surface.

Figure 1 on the last page illustrates all sixteen TJ PROTM cables. Form the ruler on the left side of the figure you can estimate the approximate length of each cable.

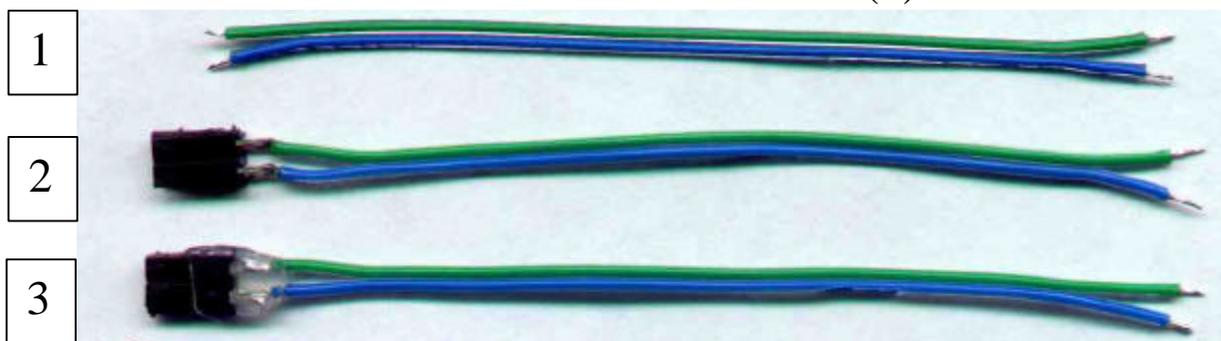


BEFORE SOLDERING

STRIP WIRE ABOUT ¼ INCH AND TIN.

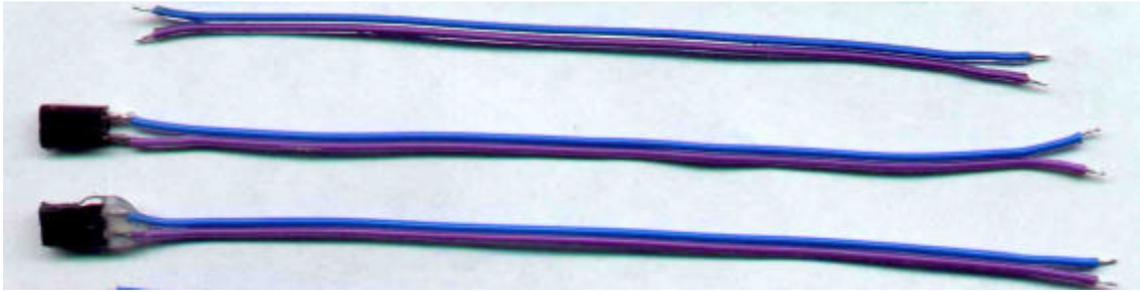


F2W2
DOWNLOAD/RUN CABLE (1)

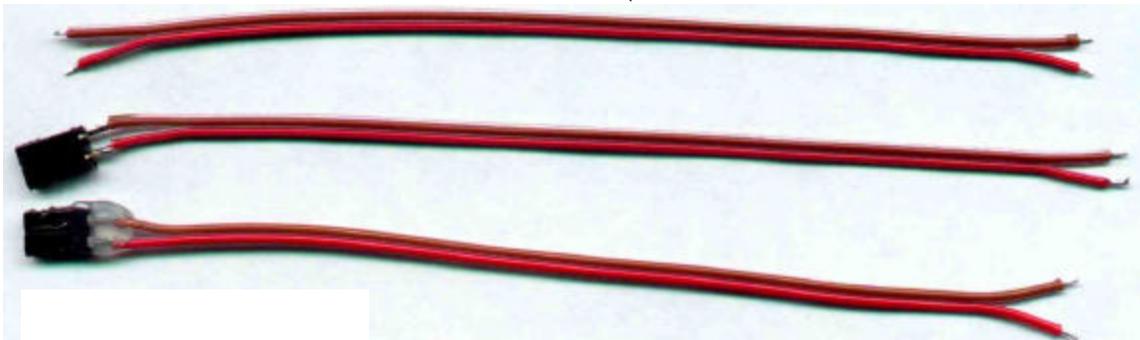


F2W2
RESET SWITCH CABLE (1)

- 1 STRIP AND TIN LEADS.
- 2 SOLDER 2-PIN CONNECTOR TO LEADS AT ONE END.
- 3 HOT GLUE CONNECTOR. FINISHED CABLE.

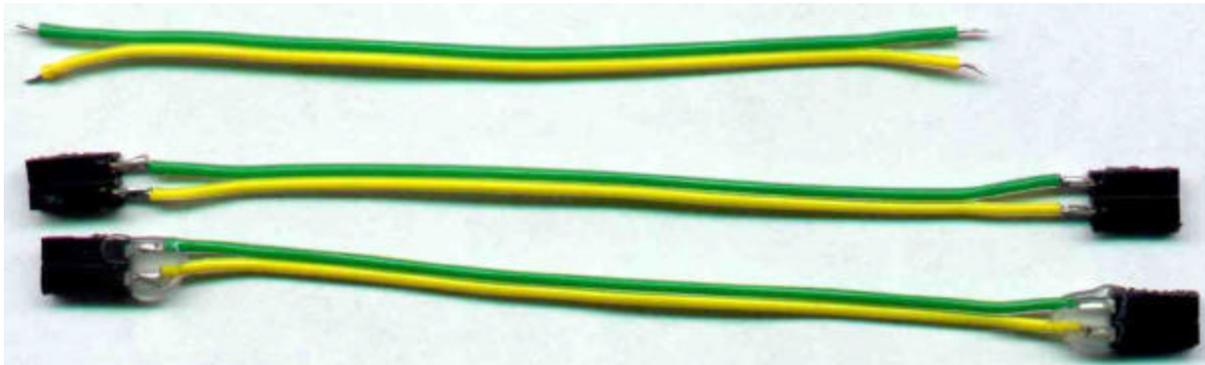


F2W2
BUMPER SWITCH CABLE (4 AT VARIOUS LENGTHS)

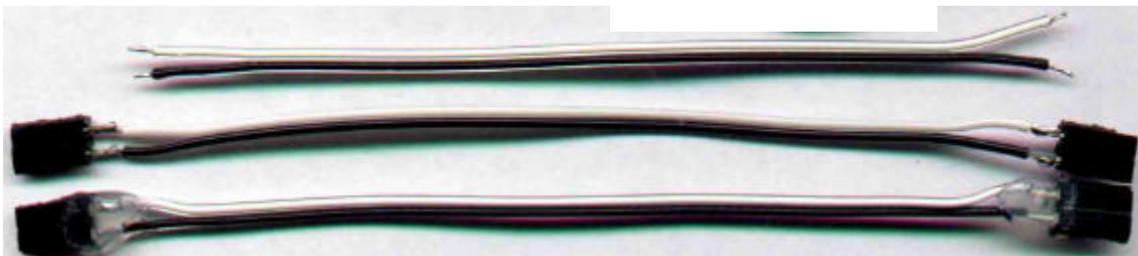


F2W2
ON/OFF SWITCH CABLE (2)

- 1
- 2
- 3



F2W2F2
IR EMITTER CABLE (3 AT VARIOUS LENGTHS)



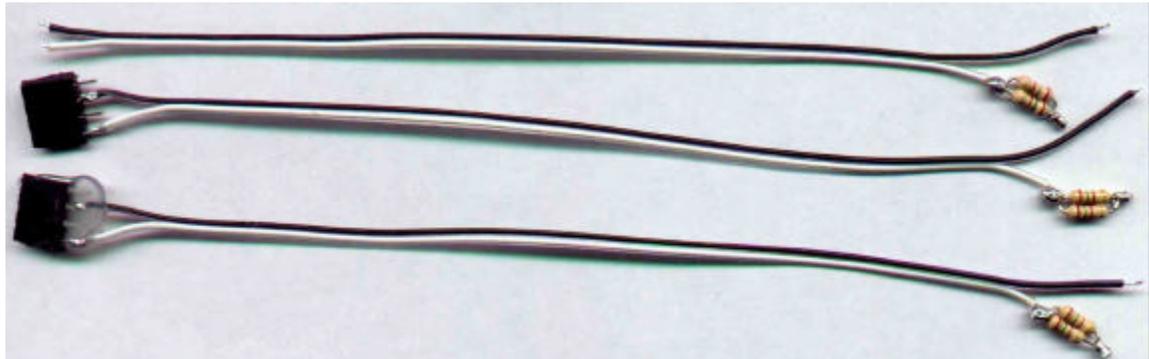
F2W2F2
POWER-ON LED CABLE (1)

- 1 STRIP AND TIN LEADS.
- 2 SOLDER 2-PIN CONNECTORS TO LEADS AT BOTH ENDS.
- 3 HOT GLUE CONNECTORS. FINISHED CABLE.

1

2

3



F4W2
CHARGE CABLE (1)

1

STRIP AND TIN LEADS.
SOLDER 150 OHM RESISTORS IN PARALLEL.
SOLDER RESISTORS TO WHITE LINE.

2

SOLDER 4-PIN CONNECTOR TO LEADS :
WHITE WIRE TO PIN-1.
BLACK WIRE TO PIN-3.

3

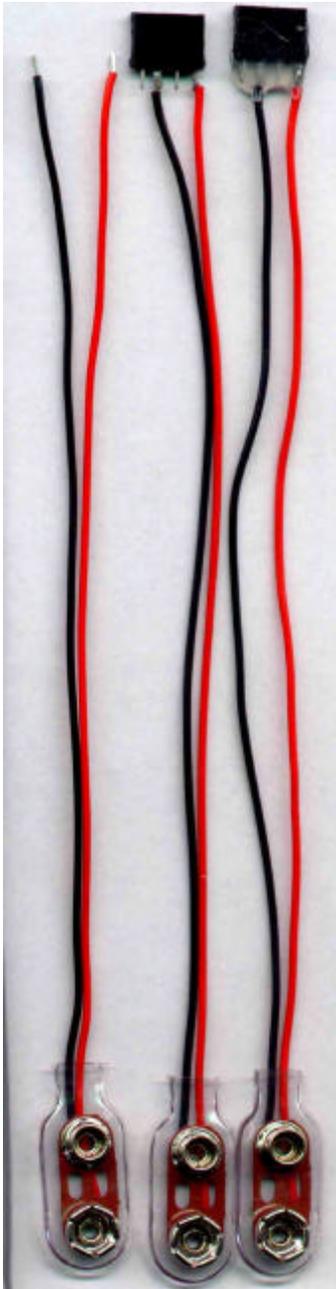
HOT GLUE CONNECTOR. FINISHED CABLE.



F3W3F3
IR DETECTOR CABLE (2 AT VARIOUS LENGTHS)

- 1** STRIP AND TIN LEADS
- 2** SOLDER 3-PIN CONNECTORS TO LEADS AT BOTH ENDS. WHITE WIRE TO MIDDLE PIN
- 3** HOT GLUE CONNECTORS. FINISHED CABLE.

- 1 2 3



F4W2
BATTERY CABLE (1)

- 1 STRIP AND TIN LEADS
- 2 SOLDER 4-PIN CONNECTOR TO LEADS: BLACK WIRE TO PIN-3
RED WIRE TO PIN-1
- 3 HOT GLUE CONNECTOR



Figure 1. The sixteen cables of the basic TJ PRO™ kit showing the approximate length of each cable. The ruler on the left measures both inches and millimeters (fine scale at far left).